



DEUTSCHE BÖRSE
GROUP

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Half-yearly financial report

Quarter 2 / 2019

Q2/2019: Deutsche Börse AG continues growth as planned

Quarterly results at a glance

- Deutsche Börse Group's net revenue grew by 6 per cent in the second quarter of 2019, to €724.8 million (Q2/2018: €687.0 million). Secular growth factors contributed 5 per cent to this growth, while positive cyclical effects resulted in net revenue growth of 1 per cent.
- Adjusted operating costs amounted to €260.0 million (Q2/2018: €262.9 million). The figure was adjusted for exceptional items of €31.5 million, largely for measures to reduce structural costs, initiated within the framework of the "Roadmap 2020" strategy. Unadjusted operating costs totalled €291.5 million (Q2/2018: €317.2 million).
- Group earnings before interest, tax, depreciation and amortisation (EBITDA) amounted to €434.0 million (Q2/2018: €371.2 million). Adjusted for exceptional items, Deutsche Börse Group increased its EBITDA to €465.5 million (Q2/2018: €425.5 million).
- Net profit for the period attributable to Deutsche Börse AG shareholders amounted to €266.9 million (Q2/2018: €210.3 million). Adjusted for exceptional items, net profit increased by 10 per cent to €288.4 million (Q2/2018: €261.9 million).
- Basic earnings per share amounted to €1.46 for an average of 183.3 million shares. Adjusted for exceptional items, they amounted to €1.58 (Q2/2018: €1.13 for 185.0 million shares; adjusted: €1.42).
- With this result for the first half of the current financial year, the Group has affirmed its forecast of around 10 per cent profit growth for 2019 as a whole (excluding exceptional items).
- In May 2019, Deutsche Börse AG distributed dividends of €2.70 per no-par value share to its shareholders for the 2018 financial year (€2.45 for the 2017 financial year).

Material events at a glance

- On 9 April 2019, Deutsche Börse AG announced that it had concluded binding agreements on the acquisition of Axioma Inc., New York, USA, (Axioma), a leading provider of portfolio and risk management solutions. Axioma will be merged with the entire index business of Deutsche Börse Group (STOXX® and DAX®), thus creating a new company with strong potential to create value. The merger will create a fully-integrated, leading information provider for institutional investors, which will serve the growing market demand for products and analyses in this area. Following regulatory approval received during the second quarter, the transaction is expected to close in the third quarter of 2019.
- On 11 April 2019, Deutsche Börse AG confirmed negotiations with Refinitiv Group about the potential acquisition of individual foreign-exchange business units. The negotiations and examination of a potential transaction are continuing.
- On 17 May 2019, Deutsche Börse AG announced that its post-trade services provider Clearstream is further expanding its offering in the investment funds space. The company has reached an agreement with National Australia Bank Limited (NAB) to acquire its Sydney-based specialist managed funds services business Ausmaq Limited. The transaction is expected to be completed in the second half of 2019, subject to usual closing conditions including regulatory approval. The managed funds administrator Ausmaq will become a 100 per cent subsidiary of Clearstream. Currently, Ausmaq is a wholly-owned subsidiary of NAB.

Q2/2019 Group interim management report

Fundamental information about the Group

The fundamental information about the Group described [in](#) on pages 28 to 42 of the 2018 annual report is still valid in principle.

Comparability of figures

Changes to the basis of consolidation

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.

With effect from 1 October 2018, Clearstream International S.A. acquired 100 per cent of the shares in Swisscanto Funds Center Ltd., London, UK. Since then, the company has been included in the consolidated financial report of Deutsche Börse AG. In the meantime, the business line was renamed Clearstream Funds Centre. With this transaction, Clearstream has expanded its range of services in the realm of investment funds to include additional distribution channels. New services include the administration of sales agreements and data processing; these will help Clearstream's expansion of its global business strategy.

In the first quarter of 2019, European Energy Exchange AG (EEX) successfully concluded the acquisition of Grexel Systems Oy, Helsinki, Finland. Grexel Systems is the leading provider of registries for guarantees of origin and energy certificates in Europe. On 1 February 2019, EEX took 100 per cent ownership of the company. Revenue and costs will be reported in the EEX (commodities) segment.

Changes to the consolidated income statement and to the consolidated balance sheet due to the recognition of leases in accordance with IFRS 16

Deutsche Börse Group adjusted the structure of its financial statements as at 1 January 2019 in accordance with IFRS 16. It now recognises the type of expenses for certain leases as described in the [2018 annual report on pages 207 to 209](#). Since 1 January 2019 these have no longer been reported under operating costs but as part of depreciation, amortisation and the financial result. Given that the prior year's figures were not restated, IFRS 16 leads to a decline in operating costs year-on-year in the first and second quarters of 2019, while EBITDA, depreciation and amortisation increase and the financial result decreases. As a result of the recognition of right-of-use assets from leases and taking into account any deferred taxes recognised in this context, total assets have risen by €272.7 million overall as at 1 January 2019.

In order to make the results of the second quarter and first six months of 2019 comparable with the figures of the same periods of the previous year, the following table provides estimates for a retrospective application of IFRS 16 in Q2/2018 and H1/2018. These figures have not been prepared or audited pursuant to national or international accounting standards, but merely serve to provide a better overview of the Group's business development.

Estimates for the shift of operating costs to depreciation and amortisation as well as to the financial result for Q2/2018 and H1/2018 as a result of the first-time application of IFRS 16

	Q2/2018 €m	H1/2018 €m
Group		
Reduction of operating costs	12.6	25.1
Increase of depreciation and amortisation	11.8	23.6
Reduction of financial result	0.7	1.4
Reporting segments (reduction of operating costs)		
Eurex (financial derivatives)	2.9	5.8
EEX (commodities)	0.8	1.6
360T (foreign exchange)	0.3	0.5
Xetra (cash equities)	1.1	2.2
Clearstream (post-trading)	4.8	9.6
IFS (investment fund services)	1.2	2.3
GSF (collateral management)	0.6	1.2
STOXX (index business)	0.4	0.9
Data	0.5	1.0

Material related party disclosures

Detailed material related party disclosures can be found in [note 12 to the condensed interim consolidated financial statements](#).

Report on the economic position

The company's business operations have not changed significantly compared with the presentation in the [2018 annual report \(pages 28 to 29\)](#).

Expectations regarding economic growth for the full year 2019 have moderated slightly, on a national as well as on a global level. In April 2019, the International Monetary Fund cut its forecast for economic growth in 2019. The IMF now expects economic growth of only 1.3 per cent for the euro area, having predicted growth of 1.6 per cent as recently as January 2019. The forecast for economic growth in Germany was reduced by 0.5 percentage points, to 0.8 per cent. Their prediction for US economic growth still stands at 2.3 per cent (January 2019 prediction: 2.5 per cent). On a global level, the IMF cut its economic growth forecast to 3.3 per cent, after predicting 3.5 per cent in January.

Following its announcement during the first quarter of 2019 that it would probably not increase interest rates in 2019, the US Federal Reserve (Fed) maintained its target Fed Funds range between 2.25 per cent and 2.5 per cent during the second quarter of 2019. However, the Fed pointed towards rising uncertainty with regard to future economic development: depending on economic performance going forward, the Fed might diverge from its previous target.

Beyond this, the macroeconomic and industry-specific environment has not changed materially compared to the description in Deutsche Börse AG's [2018 annual report \(pages 43 to 45\)](#).

With regard to Deutsche Börse's internal management of the Group there were no changes in the second quarter of 2019. Please refer to the details provided in the [2018 annual report \(pages 35 to 38\)](#).

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 structural growth objectives. Thus, the company works constantly to maintain and enhance its technological leadership and the stability of its electronic systems in the interests of its customers and the systemic stability of the financial markets. In this context, the request-for-quote service Xetra EnLight was introduced on the cash market during the reporting period; the corresponding service for the derivatives market, Eurex EnLight, was expanded. Furthermore, performance of the customer gateways to T7[®] was improved. As part of the "Roadmap 2020" strategy, the company also started to invest in new technologies like cloud and blockchain.

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

		Quarter ended			Six months ended		
		30 Jun 2019	30 Jun 2018	Change %	30 Jun 2019	30 Jun 2018	Change %
Net revenue	€m	724.8	687.0	6	1,445.6	1,378.6	5
Operating costs	€m	-291.5	-317.2	-8	-564.7	-592.2	-5
EBITDA	€m	434.0	371.2	17	884.9	788.8	12
Depreciation, amortisation and impairment losses	€m	-55.4	-58.4	-5	-108.5	-99.7	9
EBIT	€m	378.6	312.8	21	776.4	689.1	13
Net profit for the period attributable to Deutsche Börse AG shareholders	€m	266.9	210.3	27	542.1	459.3	18
Earnings per share (basic)	€	1.46	1.13	28	2.96	2.47	19

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

		Quarter ended			Six months ended		Change %
		30 Jun 2019	30 Jun 2018	Change %	30 Jun 2019	30 Jun 2018	
Net revenue	€m	724.8	687.0	6	1,445.6	1,378.6	5
Operating costs	€m	-260.0	-262.9	-1	-508.6	-517.4	-2
EBITDA	€m	465.5	425.5	9	941.0	863.6	9
Depreciation, amortisation and impairment losses	€m	-54.7	-42.1	30	-107.6	-82.9	30
EBIT	€m	410.8	383.4	7	833.4	780.7	7
Net profit for the period attributable to Deutsche Börse AG shareholders	€m	288.4	261.9	10	580.3	532.6	9
Earnings per share (basic)	€	1.58	1.42	11	3.17	2.87	11

Results of operations

Results of operations in the second quarter of 2019

After various economic and political uncertainties had contributed to lower trading volumes on equity and derivative markets during the first quarter of 2019, the conditions improved slightly in the second quarter.

Further escalation in the trade conflict between the US and China (combined with rising tariffs on imports), the postponement of Brexit to the fourth quarter of 2019, as well as uncertainty concerning future key leadership positions within the EU, have all impacted markets in different ways. Adding to the uncertain scenario were statements by ECB President Mario Draghi (who indicated a potential further monetary policy easing) together with the lower IMF growth forecasts. However, equity market volatility, as measured by the VSTOXX[®] volatility index, was roughly in line with the previous year in the second quarter of 2019.

Overall, the market environment led to lower year-on-year equity market trading volumes, whereas derivatives markets showed a mixed picture: trading volumes in equity and equity index derivatives rose slightly, whilst interest rate derivatives showed a marked decline, following a strong performance in the previous year.

Against this background, Deutsche Börse Group's net revenue increased by 6 per cent, of which 5 per cent was attributable to structural factors, whilst cyclical factors contributed approximately 1 per cent on aggregate. Structural growth, amongst other contributors, was driven by the Eurex (financial derivatives) segment, including over-the-counter (OTC) clearing, as well as by the EEX (commodities) and IFS (investment fund services) segments. With regard to cyclical net revenue, the largest part of positive effects from higher average interest rates in the Clearstream (post-trading) segment was offset by lower trading volumes in the Eurex (financial derivatives) and Xetra (cash equities) segments. The loss of net revenue resulting from termination of the "Third-Party Services" business in the Clearstream (post-trading) segment was balanced by consolidation effects from the acquisitions of GTX in the 360T (foreign exchange) segment, Swisscanto in the IFS (investment fund services) segment, and Grexel Systems in the EEX (commodities) segment.

The reclassification of expenses in accordance with IFRS 16 impacted operating costs and EBITDA, as well as amortisation and depreciation, and the net financial result. For details, please refer to the [section “Changes to the consolidated income statement and to the consolidated balance sheet due to the recognition of leases in accordance with IFRS 16”](#).

Adjusted operating costs of €260.0 million were slightly lower year-on-year (Q2/2018: €262.9 million). Higher expenditure for investments in new technologies and growth initiatives, as well as consolidation effects, were more than offset by the application of IFRS 16. Exceptional effects totalled €31.5 million, and included costs of €6.8 million for efficiency measures in the context of the Structural Performance Improvement Programme (SPIP), and of €8.9 million for mergers and acquisitions.

Deutsche Börse Group's earnings before interest, tax, depreciation and amortisation (EBITDA) was €434.0 million for the period under review (Q2/2018: €371.2 million). Excluding the exceptional effects set out above, consolidated EBITDA amounted to €465.5 million, a 9 per cent increase compared to the previous year's figure (Q2/2018: €425.5 million).

Depreciation, amortisation and impairment losses declined to €55.4 million (Q2/2018: €58.4 million). The improvement – in spite of the transition to IFRS 16 – was primarily attributable to an extraordinary write-down of a technological infrastructure asset in the second quarter of 2018. Adjusted for this exceptional effect, depreciation, amortisation and impairment losses stood at €54.7 million (Q2/2018: €42.1 million).

The Group's financial result was €–11.6 million (Q2/2018: €–16.6 million). The improvement was largely due to the reversal of provisions for interest payments on expected tax back payments. Due to internal reorganisations, the Group's effective tax rate decreased to 26.0 per cent (Q2/2018: 27.0 per cent).

Overall, net profit for the period attributable to Deutsche Börse AG shareholders improved markedly year-on-year: adjusted for exceptional items, it increased by 10 per cent to €288.4 million (Q2/2018: €261.9 million).

Results of operations in the first half of 2019

Business development for the first half of the year was largely in line with performance during the second quarter. Except for the Xetra (securities trading) and GSF (collateral management) segments, all segments accelerated their net revenue growth – some of them particularly strongly, especially the 360T (+20 per cent), EEX (+18 per cent), and IFS (+11 per cent) segments. Moreover, the Eurex segment benefited from significantly higher net revenue in OTC clearing (+64 per cent). In contrast, market volatility remained at lower levels compared to the previous year, which impacted upon trading activity in individual asset classes at both Eurex and Xetra. Clearstream's net interest income from banking business benefited from higher key interest rates in the US during the first two quarters of 2019.

Overall, Deutsche Börse Group's net revenue increased by 5 per cent year-on-year during the first six months of 2019. Operating costs were down 5 per cent for the same period – and down 2 per cent when adjusted for exceptional effects of €56.1 million (H1/2018: €74.8 million). These exceptional effects largely comprised costs for restructuring measures in the context of the Roadmap 2020, as well as costs for the integration of acquired enterprises.

Deutsche Börse Group's EBITDA rose by 12 per cent in the first half of 2019. Adjusted for exceptional effects, the Group's EBITDA rose by 9 per cent. Expenses for depreciation, amortisation and impairment losses rose by 30 per cent on an adjusted basis, due to the impact of IFRS 16.

The Group's adjusted financial result amounted to €–28.5 million in the first half of 2019 (H1/2018: €–32.9 million).

Deutsche Börse AG shares: key figures

		30 Jun 2019	Quarter ended 30 Jun 2018	30 Jun 2019	Six months ended 30 Jun 2018
Opening price ¹⁾	€	114.30	110.65	104.95	96.80
High ²⁾	€	129.15	119.80	129.15	119.80
Low ²⁾	€	112.45	108.60	103.95	95.30
Closing price (as at 30 June)	€	124.40	114.15	124.40	114.15
Number of shares (as at 30 June)	m	190.0	193.0	190.0	193.0
thereof outstanding (as at 30 June)	m	183.3	185.0	183.3	185.0
Market capitalisation (as at 30 June)	€bn	22.8	21.1	22.8	21.1

1) Closing price on preceding trading day

2) Intraday price

Eurex (financial derivatives) segment

Eurex (financial derivatives) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	242.6	239.6	1	480.2	476.6	1
Equity index derivatives	118.2	112.3	5	237.3	235.1	1
Interest rate derivatives	54.0	63.1	-14	109.7	122.2	-10
Equity derivatives	14.6	12.2	20	28.2	23.5	20
OTC clearing ¹⁾	9.6	6.2	55	18.7	11.4	64
Margin fees	15.1	15.4	-2	26.8	23.5	14
Other ²⁾	31.1	30.4	2	59.5	60.9	-2
Operating costs	-69.9	-84.5	-17	-139.7	-165.3	-15
EBITDA	173.0	154.9	12	343.3	310.8	10
EBITDA (adjusted)	176.4	168.8	5	352.0	334.9	5
PERFORMANCE INDICATORS						
Financial derivatives: trading volumes on Eurex Exchange	m contracts	m contracts	%	m contracts	m contracts	%
Derivatives ³⁾	519.5	532.4	-2	1,012.6	1,036.7	-2
Equity index derivatives	234.7	228.9	3	475.2	483.2	-2
Interest rate derivatives	143.4	174.6	-18	290.6	337.7	-14
Equity derivatives	141.0	128.9	9	245.0	215.7	14
OTC clearing volumes	€bn	€bn	%	€bn	€bn	%
Notional outstanding (average) ⁴⁾	13,556.1	6,271.3	116	12,681.9	4,917.2	158
Notional cleared	7,026.3	3,768.0	86	15,101.3	7,029.3	115

1) Including net interest income on margins for OTC interest rate swaps

2) Including connectivity and member fees

3) The total sum diverges from the sum of the individual positions since it includes further traded products such as ETFs on precious metal derivatives.

4) Notional cleared has not been taken into account due to compression runs (post-trading events).

Q2/2019

In the Eurex (financial derivatives) segment, Deutsche Börse Group reports on financial derivatives trading and the clearing business at Eurex Exchange. The clearing volume of OTC interest rate swaps, one of the structural growth factors for Deutsche Börse Group, is reported as a separated item within the segment. The performance of the Eurex segment largely depends on the trading activities of institutional investors, as well as proprietary trading by professional market participants.

Market volatility during the second quarter, as measured by the volatility index VSTOXX, was at a relatively low level. Despite this difficult overall market environment, the Eurex segment managed to raise trading volumes in equity index derivatives by 3 per cent during the second quarter of 2019. In particular, products based on various MSCI indices showed rising contract volumes. On 18 June 2019, Eurex achieved a new daily record, with a total of 12.7 million equity index contracts traded.

Single-stock derivatives trading volumes at Eurex meanwhile rose by 9 per cent in the second quarter of 2019. Business benefited from an overall increase in confidence in European equities overall.

By contrast, trading volumes in interest rate derivatives declined by 18 per cent in the second quarter of 2019 – this was due to the fact that no further interest rate hike materialised in the US, which is what many market participants had been expecting. Following the most recent statements by the US Federal Reserve (Fed), the majority of market observers is now even anticipating an interest rate cut by the Fed. In Europe, this led to another decline in trading volumes, especially in the longer maturities. On a year-on-year comparison, the high levels achieved in the second quarter of 2018 need to be taken into account, a period that saw very high trading activity in interest rate derivatives on government bonds. Trading volumes in the Eurex segment was down 2 per cent year-on-year across all product groups in the second quarter of 2019.

Eurex Clearing's Partnership Program continues to show a very positive development. Effective 1 February 2019, the programme was extended to include the repo segment, with the objective of enhancing selection and efficiency for market participants in special repos and General Collateral (GC) instruments, as well as furthering acceptance and growth in repo business between traders and customers. At the end of the second quarter, 39 participants had registered for the partnership programme, of which 34 took part in the programme for over-the-counter (OTC) interest rate derivatives. 29 participants signed up for the repo transactions programme.

The continued strong growth in netting of euro-denominated interest rate derivatives was reflected in the 90 per cent increase in cleared nominal volumes (including compression cycles to optimise client portfolios), compared to the second quarter of 2018. At the end of the second quarter of 2019, outstanding nominal volumes (following two very successful compression cycles) amounted to €11.2 trillion, translating into a market share of some 11 per cent of global euro-denominated OTC interest rate derivatives.

Increased buy-side demand is a strong indicator for client confidence in the quality of euro clearing based in Frankfurt. Overall, at the end of the period under review, more than 230 end clients were connected to Eurex Clearing's interest rate derivatives service, of which 100 were new clients that joined in 2019.

Net revenue in the Eurex segment increased slightly, by 1 per cent, during the quarter under review. Growth was mainly driven by higher revenue in equity index derivatives and OTC clearing, and by fees for pledged collateral. The segment's adjusted EBITDA rose by 5 per cent.

First half of 2019

The development of trading volumes for the first half of 2019 was largely in line with performance during the second quarter: whilst interest rate derivatives trading weakened further compared to the first quarter, due to market developments, trading volumes in equity index derivatives and single-stock derivatives gained momentum – especially as a result of higher trading volumes driven by innovative products launched in recent years. This proves that structural growth in the Eurex segment remains intact.

EEX (commodities) segment

EEX (commodities) segment: key indicators

	30 Jun 2019	Quarter ended 30 Jun 2018	Change	30 Jun 2019	Six months ended 30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	71.3	61.1	17	144.9	122.9	18
Power spot	18.5	17.4	6	35.6	33.9	5
Power derivatives	25.0	19.0	32	52.0	37.1	40
Gas	11.0	7.7	43	22.5	18.6	21
Other (incl. revenue from connectivity, member fees and admission allowance)	16.8	17.0	-1	34.8	33.3	5
Operating costs	-39.0	-35.2	11	-77.7	-68.5	13
EBITDA	32.2	25.9	24	67.0	54.4	23
EBITDA (adjusted)	34.8	27.2	28	72.2	57.1	26
PERFORMANCE INDICATORS						
Commodities trading volumes at EEX	TWh	TWh	%	TWh	TWh	%
Power spot	150.0	147.0	2	302.9	288.4	5
Power derivatives ¹⁾	1,384.5	1,024.0	35	2,820.3	2,009.2	40
Gas	680.8	434.1	57	1,264.6	959.2	32

1) Including trading volumes at Nodal Exchange

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The EEX (commodities) segment comprises Deutsche Börse Group's trading activities on EEX group's platforms, located in Europe, Asia and North America. EEX group offers central marketplaces for energy and commodity products, connecting more than 600 participants around the world. The product portfolio comprises contracts on energy, metals as well as on environmental, freight and agricultural products. The segment's most important revenue drivers are the power spot and derivatives markets, as well as the gas market.

EEX group slightly increased its trading volume in the spot power market by 2 per cent during the second quarter, with growth driven in particular by higher volumes on the intraday markets. In addition, preparations for the launch of coupling with a joint order book the various European day-ahead markets – i.e. markets for trading power on the following day – were concluded. The new XBID platform went live as scheduled in early July 2019.

EEX group's power derivatives markets saw an increase in trading volumes by 35 per cent. The exchange continued to boost its market share in almost all European core markets. New power products for Central and south-eastern Europe were launched by EEX at the beginning of June, comprising cash-settled power futures for Bulgaria, Serbia and Slovenia. With the new products, EEX's range of power derivatives now covers 20 European market areas. In a strong market environment during the second quarter of 2019, US Nodal Exchange – which EEX had acquired in 2017 – more than doubled trading volumes year-on-year, thus reaching the highest market share in its history.

EEX's gas market also recorded strong growth of 57 per cent in the second quarter, reaching a record volume of 680.8 TWh. Growth on the spot markets as well as rising volumes at the Dutch TTF Hub contributed to this development. Besides the launch of JKM LNG Futures, the second quarter was shaped by the extension of the PEGAS portfolio, to include Spain as the tenth country.

EEX group increased its net revenue by 17 per cent across all product groups in the second quarter of 2019. The segment's adjusted EBITDA rose by 28 per cent.

First half of 2019

EEX group maintained its strong growth rates seen in recent years during the first half of 2019, posting double-digit growth rates in trading volumes, in both its power and gas businesses. Whilst growth momentum in the power derivatives market weakened slightly in the second quarter compared to the very high levels of the preceding quarter, the gas business saw trading activity soar.

360T (foreign exchange) segment

360T (foreign exchange) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	21.8	18.5	18	43.2	36.1	20
Trading	18.2	15.9	14	36.0	30.9	17
Other (incl. connectivity and member fees)	3.6	2.6	38	7.2	5.2	38
Operating costs	-16.9	-14.0	21	-29.8	-25.3	18
EBITDA	4.9	4.5	9	13.4	10.8	24
EBITDA (adjusted)	9.5	8.2	16	19.7	16.1	22
PERFORMANCE INDICATORS						
Foreign exchange trading volumes on 360T®	€bn	€bn	%	€bn	€bn	%
Average daily volume ¹⁾	81.3	66.7	22	78.6	64.8	21

1) Incl. trading volumes of 360TGTX Inc.

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In the 360T (foreign exchange) segment, Deutsche Börse Group manages its foreign-exchange trading business, which takes place on the platforms provided by its subsidiaries 360 Treasury Systems AG and 360TGTX Inc. Net revenue of the 360T segment is largely driven by trading activities of institutional investors, internationally active companies, and the provision of liquidity through so-called liquidity providers.

Volatility on foreign exchange markets remained low during the second quarter of 2019. Moreover, the market environment was burdened by numerous uncertainty factors such as the trade conflict between the US and China, the impending Brexit, as well as concerns regarding a weakening of the US economy – associated with the outlook concerning prospects of potential interest rate cuts by the Fed. Thanks to

winning and onboarding numerous new clients, the 360T segment was nonetheless able to increase average daily trading volumes on its platforms by 22 per cent during the second quarter of 2019. 360T saw solid growth, especially in forward and swap transactions.

Given the product mix, which comprises a higher share of lower-margin products, net revenue growth of 18 per cent for the second quarter fell slightly short of the increase in trading volumes. The GTX business (acquired in the previous year) contributed 15 percentage points to this growth. The segment's adjusted EBITDA improved by 16 per cent.

First half of 2019

Business development in the Foreign Exchange segment during the first half of 2019 was largely in line with performance during the second quarter. Net revenue rose by 20 per cent during the first six months of the year.

Xetra (cash equities) segment

Xetra (cash equities) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	54.7	55.5	-1	113.3	117.2	-3
Trading and clearing	39.6	41.7	5-	78.9	89.2	-12
Listing	4.8	3.9	23	9.1	7.8	17
Other (incl. connectivity and member fees)	10.3	9.9	4	25.3	20.2	25
Operating costs	-24.0	-28.9	-17	-47.5	-54.3	-13
EBITDA	32.0	28.1	14	67.8	65.9	3
EBITDA (adjusted)	32.8	32.2	2	70.4	71.4	-1
PERFORMANCE INDICATORS						
Trading volume (single-counted order book turnover at the trading venues Xetra®, Börse Frankfurt and Tradegate)	€bn	€bn	%	€bn	€bn	%
Equities	347.7	384.4	-10	683.4	813.8	-16
ETF/ETC/ETN	35.2	42.2	-17	69.3	92.9	-25

Q2/2019

In the Xetra (cash equities) segment, Deutsche Börse Group reports on the development of its cash market trading venues (Xetra®, the Frankfurt Stock Exchange and Tradegate). The segment generates revenue from trading and clearing services and furthermore from the listing of companies' securities and exchange admissions, as well as from providing connectivity between clients and their trading venues and services to partner exchanges.

Persistent low equity market volatility provided an unfavourable cyclical environment for Deutsche Börse Group's cash market business in the second quarter of 2019; as a result, trading volumes decreased by 10 per cent compared to the preceding quarter. Nonetheless, in competition with other pan-European trading venues, Xetra further expanded its position slightly as the reference market for trading in DAX® shares, increasing its market share to 70 per cent (Q2/2018: 69 per cent). Trading volumes of exchange-traded funds (ETFs) were also down markedly year-on-year. Assets under management in ETFs totalled €607.1 billion as at 30 June 2019 (Q2/2018: €570.3 billion).

The Xetra segment saw two IPOs during the second quarter of 2019: at the end of June, TRATON SE, Volkswagen Group's commercial vehicles business, went public with an issuing volume of €1.6 billion. Earlier, Austria's Frequentis AG listed its shares in the General Standard segment of Frankfurter Wertpapierbörse (FWB®, the Frankfurt Stock Exchange), as part of a dual listing.

Persistently high investor interest in Xetra-Gold® – a bearer bond backed by physical gold – led to new record levels, both in terms of gold holdings and assets under administration: at the end of the second quarter, gold held in custody reached 194.3 tonnes (Q2/2018: 181.4 tonnes), equivalent to around €7.7 billion (Q2 2018: €6.3 billion). Xetra-Gold is thus the leading European security backed by physical gold. Amongst exchange traded commodities (ETCs) available on Xetra, Xetra-Gold is by far the most actively traded security. Aggregate order book turnover was €898 million in the second quarter of 2019.

Net revenue in the Xetra segment declined slightly by 1 per cent during the second quarter of 2019. The below-average decline in revenue compared with the performance of trading volume resulted from Deutsche Börse's rebate and pricing model, i.e. lower trading volume leads to correspondingly lower quantity rebates. Higher service and connectivity fees had a positive effect upon net revenue, compared to the same quarter of the previous year. The segment's adjusted EBITDA rose slightly by 2 per cent.

First half of 2019

Compared with the first quarter, the decline in trading volume during the second quarter of 2019 was more moderate – leading to a 17 per cent decline for the first half of the year. Net revenue declined by 3 per cent during the first half. When comparing results, income from early termination of an agreement needs to be taken into account; in the first quarter of 2019, this was recognised in other income.

Clearstream (post-trading) segment

Clearstream (post-trading) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	195.5	180.9	8	384.8	359.6	7
Custody	97.6	96.0	2	192.5	190.7	1
Settlement	20.3	18.1	12	40.2	39.4	2
Net interest income from banking business	51.1	39.7	29	100.0	73.9	35
Third-party services	5.8	10.1	-43	13.5	19.4	-30
Other (incl. connectivity, account maintenance)	20.7	17.0	22	38.6	36.2	7
Operating costs	-72.8	-84.8	-14	-139.1	-149.3	-7
EBITDA	122.7	96.2	28	245.6	210.4	17
EBITDA (adjusted)	130.9	109.3	20	257.9	225.6	14
PERFORMANCE INDICATORS			%			%
Assets under custody ICSD and CSD (average) (€bn)	11,531	11,354	2	11,447	11,255	2
Settlement transactions ICSD (m)	13.9	11.8	18	27.3	24.4	12
Cash balances (daily average) (€bn)	15.9	13.3	20	15.6	13.1	19

Q2/2019

Deutsche Börse Group's settlement and custody activities are reported under the Clearstream (post-trading) segment. By providing the post-trade infrastructure for Eurobonds and other markets, Clearstream is responsible for issuance, settlement, management and custody of securities from more than 50 markets worldwide. Net revenue in this segment is mainly driven by the volume and value of securities under custody, which determine the deposit fees. The settlement business depends primarily on the number of settlement transactions processed by Clearstream, both via stock exchanges and over the counter (OTC). This segment also contains the net interest income originating from Clearstream's banking business.

The value of assets under custody in the CSD and ICSD business increased slightly by 2 per cent in the second quarter of 2019. This was mainly due to a higher volume of bonds held in the ICSD business. Accordingly, net revenue from custody services also remained largely stable overall with higher ICSD revenues compensating for lower CSD revenues. The number of settlement transactions picked up significantly during the second quarter, especially in the ICSD business. This was triggered by higher trading volumes in OTC markets, whereas stock exchange volumes were below the prior year's level. Net revenue from settlement services saw a corresponding increase of 12 per cent in the second quarter.

As in the first quarter of the year, the 29 per cent rise in net interest income from banking business remained the segment's main growth driver in the second quarter. The higher net interest income on cash deposits resulted from catch-up effects from interest rate hikes in the US in 2018 and higher US dollar-denominated deposits. In contrast, net revenue from third-party services was lower year-on-year.

Although net revenue from regulatory reporting services offered via REGIS-TR showed solid growth, this could not fully compensate for the decline in the managed services business (which resulted from a declining number of clients because of the discontinuation of the business line).

Overall, the Clearstream segment increased net revenue by 8 per cent in the second quarter of 2019. Adjusted EBITDA went up by 20 per cent.

First half of 2019

Business performance in the first half of 2019 largely corresponded to the development in the second quarter, with some pick-up in settlement activity and assets under custody in the April through June period. Overall, net revenue in the first half of 2019 rose by 7 per cent.

IFS (investment fund services) segment

IFS (investment fund services) segment: key indicators

	30 Jun 2019	Quarter ended 30 Jun 2018	Change	Six months ended		Change
	€m	€m	%	30 Jun 2019	30 Jun 2018	%
FINANCIAL KEY FIGURES						
Net revenue	43.6	37.5	16	85.3	76.8	11
Custody	17.7	16.5	7	34.7	32.5	7
Settlement	13.2	12.2	8	25.5	25.5	0
Other (incl. connectivity, order routing, reporting fees)	12.7	8.8	44	25.1	18.8	34
Operating costs	-26.6	-26.5	0	-50.3	-47.3	6
EBITDA	17.0	11.0	55	35.0	29.5	19
EBITDA (adjusted)	21.1	16.2	30	42.1	35.0	20
PERFORMANCE INDICATORS			%			%
Assets under custody (average) (€ billion)	2,484.1	2,377.9	5	2,439.6	2,381.0	2
Settlement transactions (m)	6.7	6.0	12	13.0	12.6	4

Q2/2019

In the IFS (investment fund services) segment, Deutsche Börse Group reports the order routing and settlement activity and custody volumes of exchange-traded mutual and alternative funds processed by Clearstream. Customers can settle and manage their entire fund portfolio via Clearstream's Vestima[®] fund processing platform. Net revenue in the IFS segment are largely a function of the value of assets under custody and the number of transactions, which determine the fees.

The IFS segment's revenue growth gained momentum in the second quarter of the year. Overall, net revenue increased by 16 per cent. Driven by a 5 per cent rise in assets under custody, net revenue from custody services climbed by 7 per cent year-on-year. The number of settlement transactions rose by 12 per cent in the second quarter fuelled by a mix of improved market conditions and new customer flows. In addition to business from new customers and an overall favourable market environment, growth was also supported by the acquisition of Swisscanto Funds Centre Ltd. in the fourth quarter of 2018.

In May, IFS launched the Fund Desk distribution support service. This service, acquired through the acquisition of Swisscanto Funds Centre, has since been enhanced in its functionalities and fully integrated into the IFS product range. The services cover distribution contract negotiation, compliance support services for eligibility control and anti-money-laundering, know-your-customer and know-your-distributor rules, exchange fund data from asset managers to fund distributors and vice versa, as well as a distribution commission management service. With that, the new service will help clients to meet regulatory requirements for transparency and standardisation in fund distribution, which have increased under MiFID II.

Also in May, IFS announced the acquisition of Ausmaq Limited, the specialist managed funds services business of National Australia Bank Limited. Through this acquisition, IFS will enter the Australian market, further expanding its offering in the investment funds space. Australia ranks number one among the fund markets in Asia-Pacific and number four globally with regard to assets under management and has recorded steady growth in recent years. The acquisition marks another step in Deutsche Börse Group's Roadmap 2020 strategy. The transaction is expected to be completed in the second half of 2019, subject to customary closing conditions, including regulatory approval.

The segment's adjusted EBITDA rose by 30 per cent in the second quarter of 2019.

First half of 2019

Net revenue growth in the IFS segment in the first half of 2019 was more moderate than in the second quarter following the relatively slow start in the year. Growth in assets under custody and settlement transactions both accelerated in the second quarter compared to the first quarter of 2019.

GSF (collateral management) segment

GSF (collateral management) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	19.3	21.0	-8	38.7	40.1	-3
Collateral management	11.8	10.9	8	22.8	21.5	6
Securities lending	7.5	10.1	-26	15.9	18.6	-15
Operating costs	-10.0	-12.2	-18	-18.8	-21.5	-13
EBITDA	8.5	8.8	-3	19.5	18.6	5
EBITDA (adjusted)	9.8	11.3	-13	21.7	21.3	2
PERFORMANCE INDICATORS	€bn	€bn	%	€bn	€bn	%
Average outstandings from collateral management	405.7	385.8	5	398.3	375.3	6
Average outstandings from securities lending	44.9	56.9	-21	44.7	57.4	-22

Q2/2019

In the GSF (collateral management) segment, Deutsche Börse Group reports business development at Clearstream's collateral management and securities lending services. Collateral management services (formerly named Repo) encompass Triparty repo, GC Pooling® and collateral management services.

Average outstandings in the collateral management business saw continued moderate growth in the second quarter of 2019. This was the result of new customer wins and growing volumes of Triparty collateral management services, especially for initial-margin segregation products under the European Market Infrastructure Regulation (EMIR). Net revenue from collateral management services, which is directly linked to the volume of outstandings, rose by 8 per cent.

Market conditions in the securities lending business proved to be very challenging in the quarter, with volumes down year-on-year in almost all asset classes. Ample liquidity was provided by a number of central banks, putting pressure on securities lending demand and fees. In addition, year-on-year comparisons were challenging because the demand for securities lending was higher in 2018. Net revenue from securities lending, therefore, declined by 26 per cent in the second quarter.

Because of the decrease in net revenue, adjusted EBITDA declined by 13 per cent in the second quarter.

First half of 2019

The market trends seen in the first quarter essentially continued in the second quarter. However, the decline in securities lending revenue was more pronounced in the second quarter. Overall, the segment's net revenue in the first half of 2019 declined by 3 per cent.

STOXX (index business) segment

STOXX (index business) segment: key indicators

	Quarter ended			Six months ended		
	30 Jun 2019	30 Jun 2018	Change	30 Jun 2019	30 Jun 2018	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	35.4	34.8	2	70.2	68.6	2
ETF licences	9.6	10.6	-9	18.2	21.7	-16
Exchange licences	7.7	7.4	4	15.9	16.0	-1
Other licences (incl. licences on structured products)	18.1	16.8	8	36.1	30.9	17
Operating costs	-16.7	-14.5	15	-30.5	-27.2	12
EBITDA	18.7	20.3	-8	39.7	41.4	-4
EBITDA (adjusted)	22.9	24.1	-5	46.7	47.3	-1
PERFORMANCE INDICATORS	€bn	€bn	%	€bn	€bn	%
Assets under management in ETFs on STOXX® indices (average)	70.5	84.7	-17	70.9	86.5	-18
Assets under management in ETFs on DAX® indices (average)	24.6	28.1	-12	24.6	28.6	-14
Traded index derivatives (contracts in million)	216.4	211.8	2	437.3	446.7	-2

Q2/2019

In the STOXX (index business) segment, Deutsche Börse Group reports on the development of its index business operated via its STOXX Ltd. subsidiary. The extensive range of indices offered by STOXX Ltd. provides issuers with a wealth of opportunities for creating financial instruments for the most diverse investment strategies. While revenue from ETF licences depend on the volume invested worldwide in exchange-traded index funds (ETFs) on STOXX® and DAX indices, revenue from exchange licences are determined mainly by the volume traded in index derivatives on STOXX and DAX indices on Eurex®. Revenue from licences from structured products are reported under revenue from other licences.

The outflow of investors' funds from European equity indices continued through the second quarter of 2019. Yet thanks to rising index levels, assets under management in ETFs based on STOXX and DAX indices remained roughly at Q1/2019 levels, whereas they were down by 9 per cent compared to the same period of the previous year.

In line with the almost unchanged trading volumes in Eurex index derivatives, exchange licence fees also showed little change compared with the same quarter of the previous year.

In contrast, other licence revenue – especially from buy-side licences – rose by 8 per cent, thanks to multiple new contracts entered into.

In June 2019, STOXX Ltd won a tender for the licensing of four sustainable, climate-friendly global index solutions to the pension funds of four German federal states. The licences will entail more than €7 billion in replicating assets. This mandate underlines STOXX's leading position in sustainable indices: having been active in this area since 2011, the company offers a wide range of index solutions – covering benchmarks, blue chips, ESG leaders, low carbon, climate impact, ESG factors and ESG-X indices.

Overall, the segment's net revenue increased by 2 per cent during the second quarter; the change also reflects non-recurring income in the previous year. The segment's adjusted EBITDA went down by 5 per cent.

STOXX has applied for recognition according to Article 32 of the EU Benchmarks Regulation with Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin, German Federal Financial Supervisory Authority) to obtain the registration of the indices administered by STOXX into the ESMA Benchmarks Register. In an effort to realise synergies within Deutsche Börse Group's index business, Deutsche Börse AG intends to transfer its index administrator role (as defined under the EU Benchmarks Regulation) in relation to its indices (DAX, eb.rexx etc.) to STOXX. In the context of the acquisition of Axioma Inc., the index business of Deutsche Börse AG is intended to be transferred to a new company within Deutsche Börse Group.

First half of 2019

During the first half of 2019, growing licence revenues from structured products and buy-side licences overcompensated declining ETF and stagnating exchange licence fees. As a result, net revenue for the first six months altogether increased slightly, by 2 per cent.

Data segment

Data segment: key indicators

	Quarter ended		Change	Six months ended		Change
	30 Jun 2019	30 Jun 2018		30 Jun 2019	30 Jun 2018	
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	40.6	38.1	7	85.0	80.7	5
Cash and derivatives	27.1	26.0	4	54.4	54.5	0
Regulatory services	4.0	3.2	25	8.4	7.9	6
Other (incl. CEF® data services)	9.5	8.9	7	22.2	18.3	21
Operating costs	-15.6	-16.6	-6	-31.3	-33.5	-7
EBITDA	25.0	21.5	16	53.6	47.0	14
EBITDA (adjusted)	27.3	28.2	-3	58.3	54.9	6
PERFORMANCE INDICATORS	thousand	thousand	%	thousand	thousand	%
Subscriptions (average)	338.7	381.9	-11	343.8	400.4	-14

Q2/2019

In the Data segment, Deutsche Börse Group reports on the development of its marketing business concerning licences for real-time trading and market signals, and for the provision of historical data and analytics. 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 data provided by its cooperation partners. The segment generates much of its net revenue on the basis of long-term client relationships; it is relatively independent of trading volumes and capital markets volatility. Revenue from the regulatory services is also assigned to the segment.

Net revenue in the Data segment was up 7 per cent during the second quarter of 2019. Despite a structurally-driven decline in the number of subscriptions, revenue in the business with cash and derivatives market data increased by 4 per cent. Net revenue from regulatory services rose by 25 per cent during the second quarter. Growth rates in both business areas benefited from non-recurring effects due to deferrals of revenue. Adjusted EBITDA of the segment decreased by 3 per cent, mainly due to higher restructuring costs as part of an extraordinary impairment loss for a technological infrastructure in the same quarter of the previous year.

First half of 2019

Data segment revenue for the first half of the year was up by 5 per cent. Net revenue for the first quarter of 2019 included income in a low single-digit million euro amount resulting from early termination of a contract.

Financial position

Cash flow

In the first half of 2019, Deutsche Börse Group generated cash flows from operating activities in the amount of €466.5 million (H1/2018: €558.6 million) before changes in CCP positions, this being a technical closing-date item. The cash flows from operating activities include the significantly increased net profit for the period amounting to 557.6 million (H1/2018: €472.6 million). In contrast, working capital reduced by €202.3 million, which was mainly due to higher tax payments. Furthermore, investments were made in intangible assets and property, plant and equipment amounting to €73.7 million (H1/2018: €66.6 million) and dividends paid for financial year 2018 totalling €495.0 million (H1/2018: €453.3 million) dividend payments.

As a result, cash and cash equivalents as at 30 June 2019 amounted to €1,720.5 million (30 June 2018: €183.3 million). Other cash and bank balances amounted to €943.5 million (30 June 2018: 1,042.6 million).

Capital management

The company's clients generally expect it to maintain conservative interest coverage and leverage ratios, and to achieve good credit ratings. consolidated statement of financial position, as rating agency S&P Global Ratings (S&P) has adjusted the observed parameters and their calculation methodology. The key new indicators are as follows:

- Free funds from operations (FFO) relative to net debt
- Net debt relative to EBITDA
- Interest cover ratio, where the calculation was adjusted

In order to achieve a minimal financial risk profile consistent with an AA rating and in accordance with the S&P method, the company aims for a minimum ratio of FFO to net debt of 50 per cent, a net debt ratio relative to EBITDA of no more than 1.75, and a minimum interest cover ratio of 14. In the first half of 2019, Deutsche Börse Group achieved this objective with a ratio of FFO to net debt of 81 per cent, net debt relative to EBITDA of 0.9 and an interest cover ratio of 36. These values are based on annualised figures for FFO in an amount of approx. €662 million, for EBITDA of approx. €885 million, and for expected net debt as at year-end of approx. €1.6 billion.

Details on how these figures are calculated can be found in the [section "Financial position", in the Annual Report 2018 on pages 76 to 81](#).

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 20 November 2018, S&P affirmed the AA credit rating of Deutsche Börse AG and the AA credit rating of Clearstream Banking S.A.

Dividends

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. Within this range, the Group manages the actual payout ratio mainly relative to the business performance and based on continuity considerations. In addition, the company plans to invest the remaining available funds primarily into organic growth, but also, secondarily, for the Group's complementary external development. Should the Group be unable to invest these funds, additional payouts, particularly in the form of share buy-backs, present another opportunity for the use of funds.

For financial year 2018, Deutsche Börse AG paid a dividend of €2.70 per no-par value share on 13 May 2019 (2018 for financial year 2017: €2.45). The adjusted distribution ratio was 49 per cent (2018 for financial year 2017: 53 per cent, also adjusted). Given 183.3 million no-par value shares bearing dividend rights, this resulted in a total dividend amount of €495.0 million (2018 for financial year 2017: €456.4 million). The aggregate number of shares bearing dividend rights is produced by deducting 6.7 million treasury shares from the ordinary share capital of 190.0 million shares.

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 [condensed consolidated financial statements](#).

Total assets are nearly on the same level as at 31 December 2018. Changes depend to a significant extent on the financial instruments of the central counterparties, receivables and liabilities from banking business, as well as cash deposits from market participants. The level of these items can vary widely on a daily basis according to customers' needs and actions.

Consolidated balance sheet (extract)

	30 Jun 2019 €m	31 Dec 2018 €m
ASSETS		
Non-current assets	12,272.0	15,642.0
thereof intangible assets	4,190.1	4,191.6
thereof goodwill	2,868.6	2,865.6
thereof other intangible assets	940.6	952.7
thereof financial assets	7,443.3	11,168.6
thereof equity investments measured at FVOCI	70.2	108.8
thereof debt financial assets measured at amortised cost	711.6	1,057.1
thereof financial assets at FVPL	6,661.5	10,002.7
Current assets	150,217.5	146,257.1
thereof financial instruments held by central counterparties	95,298.7	94,280.3
thereof restricted bank balances	31,363.8	29,833.6
thereof other cash and bank balances	943.5	1,322.3
EQUITY AND LIABILITIES		
Equity	4,973.7	4,963.4
Liabilities	157,515.8	156,935.7
thereof non-current liabilities	9,862.9	12,828.7
thereof financial instruments held by central counterparties	6,635.4	9,985.4
thereof financial liabilities measured at amortised cost	2,284.7	2,283.2
thereof deferred tax liabilities	187.8	194.5
thereof current liabilities	147,652.9	144,107.0
thereof financial liabilities measured at amortised cost	21,118.1	19,219.7
thereof financial instruments held by central counterparties	94,578.4	94,068.3
thereof cash deposits by market participants	31,000.4	29,559.2

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 [2018 annual report on pages 111 to 136](#).

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 2018 annual report on pages 121 to 129](#).

Generally, there have been no material changes regarding operational risks in the risk profile of the Group compared with 2018. With regard to legal proceedings, there were the following material changes during the first half year of 2019:

- In March 2019, a buyer of an MBB Clean Energy AG (MBB) bond, which is held in custody by Clearstream Banking AG and was listed on Frankfurter Wertpapierbörse (FWB[®], the Frankfurt Stock Exchange), filed a lawsuit at a Dutch court concerning claims for damages against Clearstream Banking AG, Deutsche Börse AG and other partners.
- Proceedings in the case Levin vs Clearstream Banking S.A. have been suspended due to the pending complaint to the US Supreme Court in the second Peterson case.

Please refer to [note 11 of the condensed interim consolidated financial statements](#).

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. With regard to financial risks, there have been no material changes in the risk profile of the Group compared with 2018. Further information on financial risks can be found on [pages 129 to 134 and 319 to 331 of the 2018 annual report](#).

Business risk reflects the fact that the Group depends on macroeconomic developments and is influenced by other external events, such as changes in the competitive environment or regulatory initiatives. In addition, business risk 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. With regard to business risk, there have been no material changes in the risk profile of the Group compared with 2018. The Group monitors very closely any potential risks such as the Brexit and considers itself well prepared in view of its business risks. Further information concerning business risks can be found on [pages 134 to 135 of the 2018 annual report](#).

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. This evaluation can also be made for the first quarter of 2019. Due to various factors in the overall risk classes, REC of Deutsche Börse Group has increased by 12 per cent from €2,573 million in the fourth quarter of 2018 to €2,884 million in the second quarter of 2019. Such risks continue to be offset by an adequate cover pool. A significant change in the Group's risk profile described in the [2018 annual report](#) can therefore not 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. A detailed description of the Group's opportunities and the organisation of its opportunities management can be found in the [2018 annual report on pages 136 to 143](#).

Deutsche Börse AG and Microsoft entered into an agreement on the use of cloud-based services in May 2019. With this agreement, both partners are setting new contractual standards in the European financial services sector, facilitating the use of Microsoft cloud services for material outsourcing relationships. This includes services which financial institutions usually provide themselves, and which are deemed material to their core business activity. To operate such applications in a cloud environment requires compliance with national and EU regulations. The agreement addresses these specific regulatory requirements. In this way, Deutsche Börse is positioning itself at the forefront of cloud usage in the European financial services sector.

The Executive Board is not aware of any other material changes to the Group's opportunities at this time.

Report on expected developments

The report on expected developments describes how Deutsche Börse Group is expected to perform in financial year 2019. 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 2019, Deutsche Börse Group does not expect any material deviation from the forecasts for its operating environment made in its [2018 consolidated financial statements](#).

As stated there, net revenue from structural growth opportunities is expected to increase further by at least 5 per cent during the forecast period. The Group is driving this growth through investments. In contrast, the development of business divisions reliant on cyclical factors continues to depend mainly on the degree of speculation regarding future interest rate development in Europe, and the extent of equity market volatility, potentially resulting in further positive or in a negative impact on the Group's net revenue growth.

Following the Fed's announcement that it would probably not raise interest rates further in 2019, Deutsche Börse Group does not expect any further positive effects on its net interest income from the banking business, after the higher average interest rates brought about by the interest rate hikes gradually introduced in the US. Should the Fed in fact cut its key interest rates (as expected by the majority of market participants), growth in net interest income during the current year might turn out to be lower than originally expected.

Within the scope of its growth strategy, Deutsche Börse Group pursues clearly defined 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 effects 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 effects amounting to some €120 million during the current financial year. The majority of these effects are attributable to costs incurred for restructuring and efficiency measures, costs incurred in connection with existing criminal proceedings, and to the integration of companies already acquired. The increase as compared with the report on expected developments in the 2018 annual report is primarily due to the acquisitions announced in the first half year of 2019, such as the acquisition of Axioma Inc.

Owing to the expected increase in structurally-driven net revenue of at least 5 per cent (the catch-up effects being in particular for net interest income from the banking business, and efficient cost management), net profit for the period attributable to Deutsche Börse AG shareholders is expected to further grow by around 10 per cent during the forecast period. If cyclical conditions in the year 2019 as a whole improve during the remainder of the year compared with 2018, adjusted net profit for the period could also come in slightly higher. However, if cyclical conditions continue to deteriorate, growth in adjusted net profit for the period could be slightly lower.

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 144 to 148 of the 2018 annual report](#).

Development of the Group's financial position

The company expects operating cash flow, which is Deutsche Börse Group's primary funding instrument, to remain clearly positive in the future. The Group expects that two significant factors will influence changes in liquidity. Firstly, the company plans to invest some €180 million in intangible assets and property, plant and equipment at Group level. These investments will serve primarily to develop new products and services in the Eurex (financial derivatives) and Clearstream (post-trading) segments, and to enhance existing ones. The total amount essentially comprises investments in trading infrastructure and in risk management functionality.

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. Within this range, the Group manages the actual payout ratio mainly relative to the business performance and based on continuity considerations. In addition, the company plans to invest the remaining available funds primarily into organic growth, but also, secondarily, for the Group's complementary external development. Should the Group be unable to invest these funds, additional payouts, particularly share buy-backs, present another opportunity for the use of funds.

To maintain its strong credit ratings at Group level, the company aims at a ratio of net debt to EBITDA of no more than 1.75, and a ratio of free funds from operations to net debt of at least 50 per cent.

The parent company, Deutsche Börse AG, plans to invest some €50 million to €60 million in intangible assets and property, plant and equipment during the forecast period.

Consolidated income statement

for the period 1 January to 30 June 2019

	Note	30 Jun 2019 €m	Quarter ended 30 Jun 2018 €m	30 Jun 2019 €m	Six months ended 30 Jun 2018 €m
Sales revenue		747.7	719.5	1,496.2	1,452.7
Net interest income from banking business		66.7	55.0	128.7	95.9
Other operating income		3.0	3.3	4.7	8.3
Total revenue		817.4	777.8	1,629.6	1,556.9
Volume-related costs		-92.6	-90.8	-184.0	-178.3
Net revenue (total revenue less volume-related costs)		724.8	687.0	1,445.6	1,378.6
Staff costs		-186.1	-199.9	-363.2	-374.0
Other operating expenses	4	-105.4	-117.3	-201.5	-218.2
Operating costs		-291.5	-317.2	-564.7	-592.2
Net income from strategic investments		0.7	1.4	4.0	2.4
Earnings before interest, tax, depreciation and amortisation (EBITDA)		434.0	371.2	884.9	788.8
Depreciation, amortisation and impairment losses		-55.4	-58.4	-108.5	-99.7
Earnings before interest and tax (EBIT)		378.6	312.8	776.4	689.1
Financial income		2.4	0.6	2.8	5.6
Financial expense		-14.0	-17.2	-31.3	-38.5
Earnings before tax (EBT)		367.0	296.2	747.9	656.2
Other tax		0	-0.1	0	-0.4
Income tax expense		-93.0	-79.9	-190.3	-183.2
Net profit for the period		274.0	216.2	557.6	472.6
thereof attributable to Deutsche Börse AG shareholders		266.9	210.3	542.1	459.3
thereof attributable to non-controlling interests		7.1	5.9	15.5	13.3
Earnings per share (basic) (€)		1.46	1.13	2.96	2.47
Earnings per share (diluted) (€)		1.46	1.13	2.96	2.47

Consolidated statement of comprehensive income

for the period 1 January to 30 June 2019

	Note	30 Jun 2019 €m	Quarter ended 30 Jun 2018 €m	30 Jun 2019 €m	Six months ended 30 Jun 2018 €m
Net profit for the period reported in consolidated income statement		274.0	216.2	557.6	472.6
Items that will not be reclassified to profit or loss:					
Changes from defined benefit obligations		-36.4	-1.7	-54.6	-0.6
Equity investments measured at fair value through OCI		2.6	4.0	-4.1	-1.1
Deferred taxes		9.4	-0.3	14.6	-0.4
		-24.4	2.0	-44.1	-2.1
Items that may be reclassified subsequently to profit or loss:					
Exchange rate differences		-3.8	11.6	0.3	0.8
Other income from investments accounted for using the equity method		0	0.3	-0.3	-4.4
Remeasurement of cash flow hedges		1.3	-2.4	-1.1	-1.0
Deferred taxes		-0.3	-1.0	0.3	0.7
		-2.8	8.5	-0.8	-3.9
Other comprehensive income after tax		-27.2	10.5	-44.9	-6.0
Total comprehensive income		246.8	226.7	512.7	466.6
thereof Deutsche Börse AG shareholders		240.2	218.5	496.9	452.2
thereof non-controlling interests		6.6	8.2	15.8	14.4

Consolidated balance sheet

as at 30 June 2019

Assets

	Note	30 Jun 2019	1 Jan 2019	31 Dec 2018	30 Jun 2018 (restated) ¹⁾
		€m	€m	€m	€m
NON-CURRENT ASSETS					
Intangible assets	5				
Software		290.1	321.0	321.0	362.4
Goodwill		2,868.6	2,865.6	2,865.6	2,823.5
Payments on account and assets under development		90.8	52.3	52.3	40.6
Other intangible assets		940.6	952.7	952.7	920.4
		4,190.1	4,191.6	4,191.6	4,146.9
Property, plant and equipment	5				
Land and buildings		340.5	265.4	0	0
Fixtures and fittings		26.7	31.3	31.3	31.9
IT hardware, operating and office equipment, as well as car pool		85.2	89.3	84.8	75.1
Payments on account and construction in progress		19.5	14.8	14.8	5.6
		471.9	400.8	130.9	112.6
Financial assets	6				
Equity investments measured at FVOCI		70.2	108.8	108.8	109.9
Debt financial assets measured at amortised cost		711.6	1,057.1	1,057.1	1,353.0
Financial assets at FVPL					
Financial instruments held by central counterparties		6,635.4	9,985.4	9,985.4	6,283.8
Other financial debt assets at FVPL		26.1	17.3	17.3	17.7
		7,443.3	11,168.6	11,168.6	7,764.4
Investment in associates and joint ventures		37.5	42.5	42.5	37.6
Other non-current assets		4.0	4.1	4.1	4.1
Deferred tax assets		125.2	107.1	104.3	97.3
Total non-current assets		12,272.0	15,914.7	15,642.0	12,162.9
CURRENT ASSETS					
Debt financial assets measured at amortised cost					
Trade receivables		410.7	397.5	397.5	355.9
Other financial assets at amortised cost		21,637.2	19,722.6	19,722.6	17,488.2
Financial assets at FVPL					
Financial instruments held by central counterparties		95,298.7	94,280.3	94,280.3	75,241.3
Derivatives		0.1	4.7	4.7	64.6
Other financial assets at FVPL		0.4	0.4	0.4	0
Income tax assets		118.3	55.9	55.9	93.3
Other current assets		444.8	639.8	639.8	456.9
		117,910.2	115,101.2	115,101.2	93,700.2
Restricted bank balances		31,363.8	29,833.6	29,833.6	28,747.1
Other cash and bank balances		943.5	1,322.3	1,322.3	1,042.6
Total current assets		150,217.5	146,257.1	146,257.1	123,489.9
Total assets		162,489.5	162,171.8	161,899.1	135,652.8

1) Restated due to first-time application of IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers"

Equity and liabilities

	Note	30 Jun 2019	1 Jan 2019	31 Dec 2018	30 Jun 2018 (restated) ¹⁾
		€m	€m	€m	€m
EQUITY					
Subscribed capital		190.0	190.0	190.0	193.0
Share premium		1,340.4	1,340.4	1,340.4	1,332.3
Treasury shares		-477.7	-477.7	-477.7	-498.6
Revaluation surplus		-55.1	-10.2	-10.2	11.6
Accumulated profit		3,834.7	3,779.4	3,787.4	3,630.8
Shareholders' equity		4,832.3	4,821.9	4,829.9	4,669.1
Non-controlling interests		141.4	133.5	133.5	132.2
Total equity		4,973.7	4,955.4	4,963.4	4,801.3
NON-CURRENT LIABILITIES					
Provisions for pensions and other employee benefits	7	218.7	164.1	164.1	156.4
Other non-current provisions		193.9	184.3	184.3	122.6
Financial liabilities measured at amortised cost	6	2,284.7	2,283.2	2,283.2	2,281.4
Financial liabilities at FVPL					
Financial instruments held by central counterparties	6	6,635.4	9,985.4	9,985.4	6,283.8
Other financial liabilities at FVPL		0.7	0.2	0.2	0.9
Other non-current liabilities		341.7	274.0	17.0	17.2
Deferred tax liabilities		187.8	194.5	194.5	205.0
Total non-current liabilities		9,862.9	13,085.7	12,828.7	9,067.3
CURRENT LIABILITIES					
Tax provisions		254.5	334.8	334.8	399.0
Other current provisions		194.0	293.2	293.2	189.9
Financial liabilities at amortised cost					
Trade payables	6	157.4	195.0	195.0	115.9
Other financial liabilities at amortised cost	6	20,960.7	19,024.7	19,024.7	17,460.5
Financial liabilities at FVPL					
Financial instruments held by central counterparties	6	94,578.4	94,068.3	94,068.3	74,544.1
Derivatives	6	19.0	3.0	3.0	2.5
Cash deposits by market participants		31,000.4	29,559.2	29,559.2	28,568.4
Other current liabilities		488.5	652.5	628.8	503.9
Total current liabilities		147,652.9	144,130.7	144,107.0	121,784.2
Total liabilities		157,515.8	157,216.4	156,935.7	130,851.5
Total equity and liabilities		162,489.5	162,171.8	161,899.1	135,652.8

1) Restated due to first-time application of IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers"

Consolidated cash flow statement

for the period 1 January to 30 June 2019

	Note	Six months ended	
		30 Jun 2019	30 Jun 2018
		€m	€m
Net profit for the period		557.6	472.6
Depreciation, amortisation and impairment losses		109.5	99.7
Increase in non-current provisions		9.6	13.9
Deferred tax income		-11.0	-13.6
Other non-cash income		-36.0	-53.7
Changes in working capital, net of non-cash items:		-162.5	39.8
Increase in receivables and other assets		-122.0	-66.4
(Increase)/decrease in current liabilities		-38.5	106.5
Decrease in non-current liabilities		-2.0	-0.3
Net (gain)/loss on disposal of non-current assets		-0.7	-0.1
Cash flows from operating activities excluding CCP positions		466.5	558.6
Changes from liabilities from CCP positions		1,735.2	14.4
Changes in receivables from CCP positions		-1,956.2	-28.2
Cash flows from operating activities		245.5	544.8
Payments to acquire intangible assets		-50.9	-46.4
Payments to acquire property, plant and equipment		-22.8	-20.2
Payments to acquire non-current financial instruments		-22.3	-20.2
Payments to acquire investments in associates and joint ventures		-0.5	-0.5
Payments resulting from business combinations, net of cash acquired		-8.2	-86.1
Proceeds from the disposal of shares in associates and joint ventures		2.7	0
Net decrease/(increase) in current receivables and securities from banking business with an original term greater than three months		465.3	-318.5
Net decrease in current liabilities from banking business with an original term greater than three months		-248.5	0
Proceeds from disposals of financial instruments		42.7	179.8
Cash flows from investing activities		157.5	-312.1

	Note	Six months ended	
		30 Jun 2019	30 Jun 2018
		€m	€m
Purchase of treasury shares		0	-164.0
Payments to non-controlling interests		-6.7	-0.5
Repayment of long-term financing		0	-600.0
Proceeds from long-term financing		0	592.4
Payments of lease liabilities in accordance with IFRS 16		-18.8	0
Dividends paid		-495.0	-453.3
Cash flows from financing activities		-520.5	-625.4
Net change in cash and cash equivalents		-117.5	-392.7
Effect of exchange rate differences		-0.7	-4.2
Cash and cash equivalents as at beginning of period		1,839.0	580.2
Cash and cash equivalents as at end of period		1,720.8	183.3
Additional information to payments reflected within cash flows from operating activities:			
Interest income and other similar income		275.6	218.7
Dividends received		3.9	3.9
Interest paid		-143.4	-157.9
Income tax paid		-344.2	-117.8

Consolidated statement of changes in equity

for the period 1 January to 30 June 2019

	Attributable to owners of Deutsche Börse AG		
	Subscribed Capital €m	Share premium €m	Treasury shares €m
Balance as at 1 January 2018	193.0	1,332.3	-334.6
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
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
Balance as at 1 January 2019	190.0	1,340.4	-477.7
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	0
Changes due to capital increases/decreases	0	0	0
Dividends paid	0	0	0
Transactions with shareholders	0	0	0
Balance as at 30 June 2019	190.0	1,340.4	-477.7

	Attributable to owners of Deutsche Börse AG			Non-controlling interests €m	Total equity €m
	Revaluation surplus €m	Accumulated profit €m	Shareholders' equity €m		
	14.4	3,624.2	4,829.3	118.1	4,947.4
	0	459.3	459.3	13.3	472.6
	-2.8	-4.3	-7.1	1.1	-6.0
	-2.8	455.0	452.2	14.4	466.6
	0	4.9	4.9	0.2	5.1
	0	0	-164.0	0	-164.0
	0	0	0	-0.5	-0.5
	0	-453.3	-453.3	0	-453.3
	0	-448.4	-612.4	-0.3	-612.7
	11.6	3,630.8	4,669.1	132.2	4,801.3
	-10.2	3,779.4	4,821.9	133.5	4,955.4
	0	542.1	542.1	15.5	557.6
	-44.9	-0.3	-45.2	0.3	-44.9
	-44.9	541.8	496.9	15.8	512.7
	0	8.5	8.5	-0.3	8.2
	0	0	0	-7.6	-7.6
	0	-495.0	-495.0	0	-495.0
	0	-486.5	-486.5	-7.9	-494.4
	-55.1	3,834.7	4,832.3	141.4	4,973.7

Notes to the condensed interim consolidated financial statements

Basis of preparation

1. General principles

Company information

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. Deutsche Börse AG, as the Group parent company, and its subsidiaries, operate cash and derivatives markets. The Group’s business areas range from pre-IPO and growth financing services, the admission of securities to listing, through trading, clearing and settlement, to custody of securities. Furthermore, IT services are provided and market information distributed.

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. Changes in consolidated total assets depend to a significant extent on the financial instruments of the central counterparties, receivables and liabilities from banking business, as well as cash deposits from market participants. The level of these items can vary widely on a daily basis according to customers’ needs and actions.

Basis of reporting

The interim financial statements have been prepared in compliance with 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.

IAS 34 (“Interim Financial Reporting”) was applied in this report. The income tax expense for the interim reporting period was calculated using a forecast effective Group tax rate of 26 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 carryforwards at the end of the interim reporting period, where these can be expected to be realised within the next five tax periods.

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 standard – applied in the period under review

The audited and published consolidated financial statements as at 31 December 2018, including the notes, shall be considered regarding these interim financial statements. As a general rule, the accounting policies applied in these interim financial statements are in line with those applicable to the consolidated financial statements. Furthermore, Deutsche Börse Group applied any and all mandatory standards and interpretations endorsed by the European Commission. The following standard, applied for the first time, had an impact on the presentation of the interim financial statements:

- IFRS 16 “Leases”

IFRS 16 establishes principles for the recognition, measurement, presentation and disclosure of leases. The objective of IFRS 16 is to ensure that lessees and lessors provide relevant information on the effects of lease contracts.

Deutsche Börse Group initially applies IFRS 16 “Leases” using the modified retrospective approach. In line with the applicable transition regulations, comparative figures were not adjusted. The changes in accounting policies resulting from the first-time adoption of IFRS 16 are set out below. For further details on the impact on Deutsche Börse AG’s interim financial statements, see [note 2](#).

Changes in accounting policies

Due to the first-time application of IFRS 16 as at 1 January 2019, the accounting policies have been adjusted as follows:

Lessee

As a lessee, Deutsche Börse Group uses office properties, data centres, and company cars.

IFRS 16 introduces a single lessee accounting model. According to this approach, the lessee is obliged to recognise all leases: first, the lessee recognises the right-of-use asset, i.e. the lessee’s right to use the leased asset; second, the lessee recognises the lease liability, i.e. the lessee’s obligation to make lease payments.

Regarding leases with early termination or renewal options, Deutsche Börse Group exercises prudent commercial judgement to assess the applicable contract terms. Any and all significant facts and circumstances are taken into account in the assessment as to whether the exercising of early termination or renewal options is reasonably certain.

Deutsche Börse Group uses general practical expedients provided by IFRS 16 by not recognising right-of-use assets and lease liabilities for short-term leases (lease terms of less than twelve months) and low-value assets.

Measurement of lease liabilities:

Lease liabilities are recognised at the present value of future lease payments. The incremental borrowing rate of the Group at the beginning of the lease is used to calculate the present value. Value-added tax included in lease payments is neither considered in the lease liability nor in the carrying amount of the right-of-use asset, regardless of whether Deutsche Börse Group is entitled to make tax withholding or not.

In subsequent periods, interest payments made are recognised as increases of the lease liability, while lease payments are recognised as decreases. The Group remeasures its lease liabilities if adjustments to future lease payments are made.

Measurement of right-of-use assets:

Right-of-use assets are measured at cost. Any accumulated depreciation/amortisation and impairment amounts are deducted from the cost of right-of-use assets as part of subsequent measurement.

As at the date of first-time adoption of IFRS 16, Deutsche Börse Group proceeded as follows:

- The present value of the lease liabilities was calculated on the basis of the future lease payments using the incremental borrowing rate. A uniform rate was selected for similar leases.
- The measurement of the right-of-use asset was calculated on the basis of the individual agreements, either retrospectively using the interest rate applied upon first-time adoption or on the basis of the restated lease liabilities. The cumulative effects from first-time adoption of the new standard were recorded as at the date of first-time adoption directly in equity. The right-of-use asset was adjusted for provisions from the charges of lease agreements.
- In the case of agreements with a remaining term of less than twelve months at the date of first-time adoption, a decision was made on an individual agreement level.
- All contracts already identified as leases in the past continued to be classified as leases.
- Initial direct costs were not taken into account in the right-of-use asset.

2. Changes in accounting policies

Effects from the initial application of IFRS 16 “Leases”

Lessee

As a result of the recognition of right-of-use assets and the corresponding lease liabilities, Deutsche Börse Group's total assets increased by €269.9 million at initial application of IFRS 16. The effects recognised in equity (accumulated profit) amounted to €10.8 million (€8.0 million after deferred taxes). As at 1 January 2019, the following reconciliation of lease liabilities applies:

	30 Jun 2019 €m
Operating lease commitment as at 31 December 2018	310.9 ¹⁾
Short-term leases	15.0
Variable lease payments	5.3
Lease liabilities recognised as at 1 January 2019 (gross amount)	290.6
Lease liabilities as at 1 January 2019 (discounted)	280.7
Lease liabilities due to first-time application of IFRS 16 as at 1 January 2019	280.7

1) Prior-year figures have been adjusted accordingly.

The weighted incremental borrowing rate for the lease liabilities initially recognised as at 1 January 2019 was 1.4 per cent p.a.

The recognised carrying amounts of right-of-use assets refer to the following asset categories:

Leasing in the consolidated balance sheet (part 1)

	30 Jun 2019 €m
Non-current right-of-use assets	
Right of use – land and buildings	
Opening balance as at 1 January 2019	265.4
Closing balance as at 30 June 2019	340.5
Right of use – computer hardware, operating and office equipment, car pool	
Opening balance as at 1 January 2019	4.5
Closing balance as at 30 June 2019	4.3
Total	344.8

Lease liabilities were recognised as follows:

Leasing in the consolidated balance sheet (part 2)

	30 Jun 2019 €m
Lease liabilities	
Short-term lease liabilities	35.7
Long-term lease liabilities	324.2
Total	359.9

As from 1 January 2019, the type of expenses associated with such leases changed as well. Since that date, Deutsche Börse Group has recognised a right-of-use asset less any accumulated depreciation/ amortisation and impairment amounts as well as interest expenses from lease liabilities, instead of rental and lease expenses recognised in other operating expenses. These changes led to an improvement of earnings before interest, tax, depreciation and amortisation (EBITDA).

3. Group structure

Effective 1 February 2019, European Energy Exchange AG (EEX), Leipzig, Germany (a 75 per cent subsidiary of Deutsche Börse AG), acquired 100 per cent of the shares in Grexel Systems Oy, Helsinki, Finland, (Grexel Systems). Grexel Systems is the leading provider of registries for guarantees of origin and energy certificates in Europe. The purchase price was €9.4 million, including goodwill of €2.9 million, which was allocated to the EEX (Commodities) segment, representing mainly expected cost synergies.

On 9 April 2019, Deutsche Börse AG and Axioma, Inc. New York, USA, (Axioma) announced that Axioma had agreed to be acquired by Deutsche Börse, debt free, for US\$850 million cash. Axioma will be combined with Deutsche Börse's index businesses to form a new company. The merger will create a fully-integrated leading information provider for institutional investors, which will serve the growing demand on the market for products and analyses. As part of the transaction, Deutsche Börse has entered into a strategic partnership with General Atlantic Service Company L.P., New York, USA, (General Atlantic), a leading global growth equity investor. General Atlantic will invest around US\$715 million into the new company, which will be used to finance the acquisition of Axioma. Axioma will be included in Deutsche Börse Group's basis of consolidation after completion of the transaction, which is expected in the third quarter of 2019.

Effective 17 May 2019, Deutsche Börse AG concluded an agreement with National Australia Bank Limited, Melbourne, Australia, to acquire the specialist managed funds services business Ausmaq Limited, Sydney, Australia. With this acquisition, Deutsche Börse Group is further expanding its offering in the investment funds space, and enters the Australian market. The transaction is expected to close in the third quarter of 2019. Subsequently, Ausmaq Limited will be included in Deutsche Börse Group's basis of consolidation.

Consolidated income statement disclosures

4. Other operating expenses

Composition of other operating expenses

	30 Jun 2019	Quarter ended 30 Jun 2018	30 Jun 2019	Six months ended 30 Jun 2018
	€m	€m	€m	€m
Costs for IT service providers and other consulting services	42.1	35.2	78.0	63.8
IT costs	28.5	29.5	57.5	56.8
Premises expenses	7.5	22.1	14.1	39.7
Non-recoverable input tax	9.4	8.5	17.0	17.2
Travel, entertainment and corporate hospitality expenses	5.9	6.1	10.2	10.5
Advertising and marketing costs	4.5	4.5	9.0	8.6
Non-wage labour costs and voluntary social benefits	1.3	1.9	2.4	3.1
Insurance premiums, contributions and fees	2.9	4.1	5.8	7.5
Cost of agency agreements	0	0	0.1	0.2
Supervisory Board remuneration	1.1	1.0	1.9	2.0
Expense due to exchange rate differences	0.1	0.5	0.5	0.5
Miscellaneous	2.1	3.9	5.0	8.3
Total	105.4	117.3	201.5	218.2

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.

Consolidated balance sheet disclosures

5. Intangible assets and property, plant and equipment

As at 30 June 2019, intangible assets amounted to €4,190.1 million (31 December 2018: €4,191.6 million).

This item primarily consists of goodwill in the amount of €2,868.6 million (31 December 2018: €2,865.6 million), other intangible assets (licences, trade names and customer relationships) in the amount of €940.6 million (31 December 2018: €952.7 million), as well as internally developed software in the amount of €256.5 million (31 December 2018: €285.2 million).

The decrease in internally developed software in the amount of €28.7 million was essentially due to amortisation.

As at 30 June 2019, property, plant and equipment amounted to €471.9 million (31 December 2018: €130.9 million). The increase was mainly due to the first-time application of IFRS 16 and a net addition to “land and buildings” in the amount of €340.5 million.

6. Financial instruments

6.1 Financial assets

Financial assets (except financial instruments of central counterparties) totalled €807.9 million as at 30 June 2019 (31 December 2018: €1,183.2 million). The decline was due to debt instruments measured at amortised cost (€345.6 million). Instruments with a total amount of €365.5 million will be due next year, and were thus classified as short-term items.

6.2 Financial liabilities measured at amortised cost

The euro-denominated bonds issued by Deutsche Börse AG have a carrying amount of €2,284.7 million (31 December 2018: €2,283.2 million) and are disclosed under “other financial liabilities measured at amortised cost”.

6.3 Recognised fair value measurements

The financial assets and liabilities that are measured at fair value are required to be 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. 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 fair value is determined on the basis of unobservable inputs.

As at 30 June 2019, the financial assets and liabilities measured at fair value were allocated to levels 1 to 3 of the fair value hierarchy:

Fair value hierarchy

	Fair value as at 30 Jun 2019 €m	thereof attributable to:		
		Level 1 €m	Level 2 €m	Level 3 €m
ASSETS				
Financial assets measured at fair value through other comprehensive income				
Equity investments measured at fair value through OCI	70.2	19.9	0	50.3
Financial assets measured at fair value through profit or loss (FVPL)				
Non-current financial instruments held by central counterparties	6,635.4	0	6,635.4	0
Non-current financial assets measured at fair value through profit or loss	26.1	10.1	0	16.0
Current financial instruments held by central counterparties	95,298.7	0	95,298.7	0
Current derivatives	0.1	0	0.1	0
Other current financial assets measured at FVPL	0.4	0	0	0.4
Total	101,960.7	10.1	101,934.2	16.4
Total assets	102,030.9	30.0	101,934.2	66.7
LIABILITIES				
Financial liabilities measured at fair value through profit or loss (FVPL)				
Non-current financial instruments held by central counterparties	6,635.4	0	6,635.4	0
Non-current financial liabilities at fair value through profit or loss (FVPL)	0.7	0	0	0.7
Current financial instruments held by central counterparties	94,578.4	0	94,578.4	0
Current derivatives	19.0	0	19.0	0
Total liabilities	101,233.5	0	101,232.8	0.7

As at 30 June 2018, the financial assets and liabilities measured at fair value were allocated to levels 1 to 3 of the fair value hierarchy:

Fair value hierarchy

	Fair value as at 30 Jun 2018 €m	thereof attributable to:		
		Level 1 €m	Level 2 €m	Level 3 €m
ASSETS				
Financial assets measured at fair value through other comprehensive income				
Equity investments measured at fair value through OCI	109.9	26.9	0	83.0
Financial assets measured at fair value through profit or loss (FVPL)				
Non-current financial assets held by central counterparties	17.7	9.8	0	7.9
Non-current financial assets measured at fair value through profit or loss	6,283.8	0	6,283.8	0
Current financial instruments held by 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 instruments held by central counterparties	-6,283.8	0	-6,283.8	0
Non-current financial liabilities at fair value through profit or loss (FVPL)	-0.9	0	0	-0.9
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

The derivatives listed in level 2 comprise forward foreign-exchange transactions. The fair value of the forward foreign-exchange transactions is determined on the basis of the forward exchange rates for the remaining period to maturity as at the reporting 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 reporting date, the items allocated to level 3 and their measurements were as follows:

Development of financial instruments in level 3

	Assets			Total €m
	Equity investments €m	Financial assets measured at FVPL €m	Financial liabilities measured at FVPL €m	
Balance as at 1 Jan 2019	89.7	9.1	-0.2	98.6
Acquisition through business combinations	0	0	0	0
Changes in the basis of consolidation	0	0	0	0
Additions	0	4.7	-0.5	4.2
Diposals	-42.7	0	0	-42.7
Reclassification	0	0	0	0
Transfer into level 3	0	0	0	0
Realised gains/(losses)	0	0	0	0
Financial result	0	0	0	0
Other operating income	0	0	0	0
Unrealised capital gains/(losses) recognised in profit or loss	0	2.6	0	2.6
Net income from strategic investments	0	2.6	0	2.6
Changes recognised in the revaluation surplus	3.2	0	0	3.2
Unrealised foreign-exchange gains/(losses) recognised in other comprehensive income	0.1	0	0	0.1
Balance as at 30 Jun 2019	50.3	16.4	-0.7	66.0

The value of level 3 equity investments is reviewed on a quarterly basis using internal valuation models. During the first half of 2019, fair value measurement resulted in positive effects of €4.4 million and negative effects of €1.2 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 €2.8 million, and negative effects of €0.3 million, recognised through profit or loss. This item also comprises two convertible bonds and a convertible loan, whose market values are determined using internal valuation models. As at 30 June 2019, the fair value of these financial instruments stood at €3.5 million.

Furthermore, the item “financial assets measured at fair value through profit or loss” comprises financial instruments related to an incentive programme of Eurex Frankfurt AG. The financial instruments were regularly measured at fair value through profit or loss using an internal model at the quarterly reporting dates. As at 30 June 2019, the carrying amount of these financial instruments was unchanged, at €0.4 million. Since these are internal models, the parameters can differ from those at the settlement date. However, the derivatives will not exceed an amount of €0.8 million. These amounts arise if all beneficiaries of the incentive programme fulfil the conditions and a repayment of the contribution is not taken into consideration.

The fair value measurements of the purchase price components reported under the position “non-current financial liabilities measured at fair value through profit or loss” rose to €0.7 million as at 30 June 2019. The reason for this is the addition of a further purchase price component in the amount of €0.5 million. The 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.

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

The bonds issued have a fair value of €2,477.7 million (31 December 2018: €2,422.9 million) and are disclosed under “other financial liabilities measured at amortised cost”. The fair value of such instruments is based on the debt instruments’ quoted prices. Hence, debt instruments were allocated to level 2.

The fixed-income securities held have a fair value of €1,464.2 million (31 December 2018: €1,627.0 million). They are recognised as part of debt instruments measured at amortised cost. The fair value of the securities was determined by reference to published price quotations in an active market. The securities were allocated to level 1.

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

- Other financial assets reported under (non-)current debt financial instruments measured at amortised cost
- Restricted bank balances
- Cash and other bank balances
- Cash deposits by market participants
- Trade receivables
- Trade payables
- Other financial liabilities reported under current financial liabilities measured at amortised cost

7. 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 2019, the discount rate for pension plans and other employee benefits was 1.15 per cent in Germany and Luxembourg (31 December 2018: 1.75 per cent; 30 June 2018: 1.80 per cent); in Switzerland, the discount rate used was unchanged as against year-end 2018, at 1.0 per cent (30 June 2018: 0.70 per cent).

Other disclosures

8. Reconciliation to cash and cash equivalents

Reconciliation to cash and cash equivalents

	30 Jun 2019 €m	1 Jan 2019 €m
Restricted bank balances	31,363.8	29,833.6
Other cash and bank balances	943.5	1,322.3
Net position of financial instruments held by central counterparties	720.3	212.0
Current financial instruments measured at amortised cost	21,637.2	19,722.6
less financial instruments with an original maturity exceeding 3 months	-1,091.7	-2,666.6
Current financial liabilities measured at amortised cost	-20,960.7	-19,024.7
less financial instruments with an original maturity exceeding 3 months	108.5	1,999.0
Current liabilities from cash deposits by market participants	-31,000.4	-29,559.2
Cash and cash equivalents	1,720.5	1,839.0

9. 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 2019:

Calculation of the number of potentially dilutive ordinary shares

Tranche	Exercise price €	Adjustment of the exercise price according to IAS 33 €	Average number of outstanding options 30 Jun 2019	Average price for the period ¹⁾ €	Number of potentially dilutive ordinary shares 30 Jun 2019
2014 ²⁾	0	0	3,869	116.75	3,868
2019 ³⁾	0	0	13,607	116.75	13,607

1) Volume-weighted average price of Deutsche Börse AG shares on Xetra for the period 1 January to 30 June 2019

2) This relates to rights to shares under the Long-term Sustainable Instrument (LSI) for senior executives.

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

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 2019.

Calculation of earnings per share (basic and diluted)

	Quarter ended		Six months ended	
	30 Jun 2019	30 Jun 2018	30 Jun 2019	30 Jun 2018
Number of shares outstanding as at beginning of period	183,346,965	185,075,293	183,347,045	186,610,158
Number of shares outstanding as at end of period	183,346,965	185,013,738	183,346,965	185,013,738
Weighted average number of shares outstanding	183,346,965	185,015,091	183,346,991	185,597,258
Number of potentially dilutive ordinary shares	29,101	37,879	17,476	22,896
Weighted average number of shares used to compute diluted earnings per share	183,376,066	185,052,970	183,364,467	185,620,154
Net income for the period (€m)	266.9	210.3	542.1	459.3
Earnings per share (basic) (€)	1.46	1.13	2.96	2.47
Earnings per share (diluted) (€)	1.46	1.13	2.96	2.47

As at 30 June 2019, there were no subscription rights that were excluded from the calculation of the weighted average number of potentially dilutive shares for having a dilutive effect during the reporting period ending on the reporting date.

10. Segment reporting

Composition of sales revenue by segment

	30 Jun 2019 €m	Quarter ended 30 Jun 2018 €m	30 Jun 2019 €m	Six months ended 30 Jun 2018 €m
Sales revenue from business with third parties				
Eurex (financial derivatives)	246.1	236.1	489.5	476.6
Equity index derivatives	130.1	124.0	262.3	259.1
Interest rate derivatives	54.7	63.5	110.9	123.0
Equity derivatives	16.4	13.8	31.6	26.6
OTC clearing	10.3	5.4	19.9	10.2
Other	34.6	29.4	64.8	57.7
EEX (commodities)	74.8	67.0	152.4	133.2
Power spot	18.4	17.3	35.7	33.9
Power derivative	29.8	22.1	61.7	43.2
Gas	14.5	9.9	29.0	23.1
Other	12.1	17.7	26.0	33.0
360T (foreign exchange)	23.4	18.4	45.9	36.2
Trading	18.2	15.9	36.0	31.0
Other	5.2	2.5	9.9	5.2
Clearstream (post-trading)	195.9	191.2	388.6	384.2
Custody	132.0	130.1	260.0	257.2
Settlement	31.8	27.3	63.2	58.6
Third-party services	5.9	10.2	13.7	19.5
Other	26.2	23.6	51.7	48.9
IFS (investment fund services)	46.7	39.6	91.0	80.7
Custody	18.6	17.3	36.5	33.9
Settlement	14.4	13.0	27.9	27.1
Other	13.7	9.3	26.6	19.7
GSF (collateral management)	28.4	35.4	57.4	68.8
Securities management	11.9	11.0	23.2	21.8
Securities lending	16.5	24.4	34.2	47.0
Xetra (cash equities)	57.8	59.4	119.8	126.5
Trading and clearing	42.7	45.9	85.4	98.8
Listing	4.9	3.8	9.1	7.5
Other	10.2	9.7	25.3	20.2
STOXX (index business)	39.7	38.4	78.2	75.4
ETF licences	10.7	11.6	20.4	23.6
Exchange licences	8.4	8.3	17.4	17.6
Other	20.6	18.5	40.4	34.2
Data	46.7	45.3	97.2	94.3
Cash and derivatives	30.6	29.3	61.4	61.4
Regulatory services	4.8	3.8	10.0	8.6
Other	11.3	12.2	25.8	24.3
Total sales revenue from business with third parties	759.5	730.8	1,520.0	1,475.9
Consolidation of internal sales revenue	- 11.8	- 11.3	- 23.8	- 23.2
Total sales revenue	747.7	719.5	1496.2	1452.7

Net interest income from banking business

	30 Jun 2019	Quarter ended	30 Jun 2019	Six months ended
	€m	30 Jun 2018	€m	30 Jun 2018
		€m		€m
Eurex (financial derivatives)	12.7	13.3	22.2	18.7
EEX (commodities)	2.9	2.0	6.4	3.3
Clearstream (post-trading)	51.1	39.7	100.1	73.9
Total	66.7	55.0	128.7	95.9

Net revenue

	30 Jun 2019	Quarter ended	30 Jun 2019	Six months ended
	€m	30 Jun 2018	€m	30 Jun 2018
		€m		€m
Eurex (financial derivatives)	242.6	239.6	480.2	476.6
EEX (commodities)	71.3	61.1	144.9	122.9
360T (foreign exchange)	21.8	18.5	43.2	36.1
Xetra (cash equities)	54.7	55.5	113.3	117.2
Clearstream (post-trading)	195.5	180.9	384.8	359.6
IFS (investment fund services)	43.6	37.5	85.3	76.8
GSF (collateral management)	19.3	21.0	38.7	40.1
STOXX (index business)	35.4	34.8	70.2	68.6
Data	40.6	38.1	85.0	80.7
Total	724.8	687.0	1,445.6	1,378.6

Operating costs

	30 Jun 2019	Quarter ended	30 Jun 2019	Six months ended
	€m	30 Jun 2018	€m	30 Jun 2018
		€m		€m
Eurex (financial derivatives)	69.9	84.5	139.7	165.3
EEX (commodities)	39.0	35.2	77.7	68.5
360T (foreign exchange)	16.9	14.0	29.8	25.3
Xetra (cash equities)	24.0	28.9	47.5	54.3
Clearstream (post-trading)	72.8	84.8	139.1	149.3
IFS (investment fund services)	26.6	26.5	50.3	47.3
GSF (collateral management)	10.0	12.2	18.8	21.5
STOXX (index business)	16.7	14.5	30.5	27.2
Data	15.6	16.6	31.3	33.5
Total	291.5	317.2	564.7	592.2

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

	30 Jun 2019	Quarter ended	30 Jun 2019	Six months ended
	€m	30 Jun 2018	€m	30 Jun 2018
		€m		€m
Eurex (financial derivatives)	173.0	154.9	343.3	310.8
EEX (commodities)	32.2	25.9	67.0	54.4
360T (foreign exchange)	4.9	4.5	13.4	10.8
Xetra (cash equities)	32.0	28.1	67.8	65.9
Clearstream (post-trading)	122.7	96.2	245.6	210.4
IFS (investment fund services)	17.0	11.0	35.0	29.5
GSF (collateral management)	8.5	8.8	19.5	18.6
STOXX (index business)	18.7	20.3	39.7	41.4
Data	25.0	21.5	53.6	47.0
Total	434.0	371.2	884.9	788.8

Investment in intangible assets and property, plant and equipment

	30 Jun 2019	Six months ended
	€m	30 Jun 2018
	€m	€m
Eurex (financial derivatives)	16.6	15.6
EEX (commodities)	9.0	7.1
360T (foreign exchange)	3.2	1.4
Xetra (cash equities)	4.0	2.9
Clearstream (post-trading)	23.5	27.3
IFS (investment fund services)	10.7	3.2
GSF (collateral management)	2.8	0.4
STOXX (index business)	1.0	3.8
Data	2.9	4.9
Total	73.7	66.6

11. 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 provided information about Peterson vs Clearstream Banking S.A., the first Peterson proceeding. This class action lawsuit was initiated by various plaintiffs seeking to have certain customer positions held in Clearstream Banking S.A.’s securities omnibus account with its US depository bank, Citibank NA, turned over and asserting direct claims against Clearstream Banking S.A. for damages of US\$250 million. The 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 the 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 later by the US Supreme Court on 20 April 2016. Once distribution of the funds to the plaintiffs is complete, a related case, Heiser vs Clearstream Banking S.A., also seeking turnover of the same assets, should also be completed.

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 U.S. 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. The proceedings have been suspended due to the pending complaint to the US Supreme Court in the second Peterson case.

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 had 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 from Bank Markazi on 17 January 2018 naming Banca UBAE S.P.A. and Clearstream 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 currently subject to US and Luxembourg litigation brought by US plaintiffs, addressing 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.

Levin vs Clearstream Banking S.A.

On 26 December 2018, two US plaintiffs filed a complaint naming Clearstream Banking S.A. and other entities as defendants. The plaintiffs hold claims against Iran and Iranian authorities and persons amounting to approximately US\$28.8 million. The complaint in this case (Levin vs Clearstream Banking S.A.) is based on similar assets and allegations as in the second Peterson case and the Havlish case. 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\$28.8 million plus punitive damages and interest. The proceedings have been suspended due to the pending complaint to the US Supreme Court in the second Peterson case.

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 of 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

Legal 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 legal 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 March 2019, a buyer of an MBB Clean Energy AG (MBB) bond, which is held in custody by Clearstream Banking AG and was listed on Frankfurter Wertpapierbörse (FWB[®], the Frankfurt Stock Exchange), filed a lawsuit at a Dutch court concerning claims for damages against Clearstream Banking AG, Deutsche Börse AG and other partners.

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 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.

Lawsuit against Deutsche Börse AG

In November 2018, a customer of a trading participant of the Frankfurt Stock Exchange filed a case against Deutsche Börse AG with the District Court of Frankfurt/Main. The plaintiff is claiming damages of approximately €2.6 million from Deutsche Börse AG. The alleged damages are said to have arisen (i) on 7 July 2016, from Deutsche Börse AG's publication of an inaccurate ex-dividend date relating to a financial instrument via the Xetra system and (ii) due to the fact that a client of the plaintiff relied on this inaccurate information to conclude transactions.

Administrative offence proceedings of BaFin

On 19 December 2018, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) sent Deutsche Börse AG a formal hearing notification in a penalty proceeding, which refers to the allegation of a supposed lack of self-liberation or, alternatively, an allegedly omitted ad hoc announcement. Specifically, in the search for a successor for Carsten Kengeter, Deutsche Börse AG had omitted to qualify as a price-relevant intermediate step the fact that a few days before the appointment of Theodor Weimer in November 2017, two suitable and interested CEO candidates had been identified, and a decision about the appointment was planned. Even after consulting with external experts, Deutsche Börse AG believes this allegation is unfounded.

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.

12. 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 2019. All transactions were concluded at prevailing market terms.

Transactions with related parties

	Amount of the transactions								Outstanding balances			
	Revenues as at quarter ended 30 Jun		Expenses as at quarter ended 30 Jun		Revenues as at six months ended 30 Jun		Expenses as at six months ended 30 Jun		Receivables 30 Jun		Liabilities 30 Jun	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m
Associates	3.2	2.3	-4.7	-4.7	6.1	5.1	-9.7	-9.7	1.3	1.4	-0.4	-1.0
Joint ventures	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	3.2	2.3	-4.7	-4.7	6.1	5.1	-9.7	-9.7	1.3	1.4	-0.4	-1.0

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. Accordingly, the members of the Executive Board and the Supervisory Board are defined as key management personnel.

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 2019, ECC Luxembourg paid approximately €7.0 thousand for these management services.

On the board of directors of Powernext SAS, 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 S.à r.l., Tarascon, France, and EDEV S.A., Courbevoie, France. During the first six months of 2018, Powernext SAS 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 €245.9 thousand in revenue with these services during the first half of 2019. As at 30 June 2019, there were receivables amounting to €82.4 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, Clearstream Banking AG, Frankfurt/Main, Germany, and Deutsche Börse AG, Frankfurt/Main, Germany. Within the scope of these transactions there have been expenses in the amount of €595.8 thousand and revenue in the amount of €471.9 thousand during the first six months of 2019.

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 2019, Deutsche Börse Group generated approximately €2,683.4 thousand in revenue as well as €7,952.0 thousand in expenses with Deutsche Börse Commodities GmbH.

Two members of the management 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 2019, Deutsche Börse Group generated €106.4 thousand in revenue and €18.6 thousand in expenses with CEINEX.

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.

13. Employees

Employees

	30 Jun 2019	Quarter ended 30 Jun 2018	30 Jun 2019	Six months ended 30 Jun 2018
Average number of employees during the period	6,093	5,742	6,041	5,707
Employed as at the balance sheet date	6,145	5,789	6,145	5,789

Taking into account part-time employees, there was an average of 5,650 full-time equivalent (FTE) employees during the second quarter of 2019 (Q2/2018: 5,350).

14. 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 half-yearly financial reporting, the condensed interim consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group interim management report 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, 24 July 2019

Deutsche Börse AG
The Executive Board

Theodor Weimer

Christoph Böhm

Thomas Book

Stephan Leithner

Gregor Pottmeyer

Hauke Stars

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 am Main, for the period from 1 January to 30 June 2019, 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 respects, 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 respects, 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, 24 July 2019

KPMG AG

Wirtschaftsprüfungsgesellschaft

[Original German version signed by:]

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Wirtschaftsprüfer

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