Euroclear SA/NV

Consolidated financial statements
at 31 December 2016

Contents

Directors' report

The directors of Euroclear SA/NV are pleased to present their report, together with the audited consolidated financial statements of the company and its subsidiaries (the 'group') for the year ended 31 December 2016.

Group overview and principal activities

The Euroclear group is the world's leading provider of post-trade services. The group provides settlement, safekeeping and servicing of domestic and cross-border securities, with asset classes covered including bonds, equities and investment funds. The Euroclear group includes the International Central Securities Depositary (ICSD), Euroclear Bank, based in Brussels, as well as the domestic Central Securities Depositaries (CSDs) Euroclear Belgium, Euroclear Finland, Euroclear France, Euroclear Nederland, Euroclear Sweden and Euroclear UK & Ireland. Euroclear Bank is the only credit institution in the Euroclear group. Euroclear SA/NV provides system development and support services to the other companies of the group. Euroclear plc is the holding company which owns, directly or indirectly, the entire issued share capital of these companies.

Euroclear SA/NV is headquartered in Brussels and operates three branches in Amsterdam, London and Paris. The group's domestic CSDs are headquartered in their local markets. Euroclear Bank is headquartered in Brussels and operates two branches in Hong Kong and Krakow.

Euroclear Bank's branch in Krakow, Euroclear Bank SA/NV (Spółka Akcyjna) - Oddział w Polsce, officially opened in January 2013. By the end of 2016, it had grown to over 500 employees who serve our global client base. The Krakow branch provides a dual-office arrangement with Euroclear Bank's existing operations in Belgium.

With more than 100 employees, Euroclear Bank SA/NV (Hong Kong Branch) is an important contributor to client servicing in Asia. Through the Hong Kong office, we are able to provide clients with a global service offering, despite the time zone difference with our headquarters in Europe.

DTCC-Euroclear Global Collateral Ltd is a joint venture shared equally between Euroclear SA/NV and The Depository Trust & Clearing Corporation (DTCC), founded in September 2014. Through DTCC-Euroclear Global Collateral Ltd, we will enable the automatic transfer and segregation of collateral based on agreed margin calls relating to over-the-counter (OTC) derivatives and other collateralised contracts.

In November 2016, Euroclear SA/NV purchased Euroclear Investments' equity participations in Taskize Limited and Euroclear Market Solutions Limited.

Euroclear Market Solutions Limited, an English company incorporated in December 2014, will initially provide a central infrastructure to enable banks and their counterparties to agree on and manage operations payables and receivables claims. The service has been developed in cooperation with Merit Software, a provider of claims management systems, and combines our expertise as operator of financial infrastructure and our relationships with leading global banks, with Merit's expertise and application.

Taskize Limited is a start-up company founded to develop and bring to market Taskize Connect, a collaboration software designed to resolve issues in global banking operations within and between firms. The solution will provide an uniform way of navigating counterparty organizations with a role-based directory.

In December 2016, in the context of the Bank's recovery and resolution plan, Euroclear Bank and Euroclear plc, with Euroclear SA/NV consent, have mutually agreed to terminate the license agreement with immediate effect as of 31 December 2016 against a one off compensation payment. Following this event, Euroclear Bank became owner of the intellectual property of the Euroclear System and will no longer pay royalty fees to Euroclear plc.

Euroclear SA/NV also purchased the Euroclear Trademarks from Euroclear plc.

In addition, in order to strengthen its recovery profile, Euroclear Bank borrowed early December 2016 from Euroclear Investments SA €200 million under the form of an internal convertible senior loan with a 10 year maturity.

Business review

Our strategy for evolving capital markets

Euroclear's strategic vision is to remain a leading partner for the global capital markets, by connecting our traditional European core to the world's financial markets and by providing services that improve efficiency and meet specific client needs.

In an evolving financial market context, shaped by an uncertain economic and political environment, market participants seek to work with a trusted market infrastructure. In this capacity, we offer our clients operating stability and resilience, greater collateral mobility and access to liquidity, and higher levels of process automation.

The Euroclear group is committed to helping its clients navigate the rapidly changing operating environment and continues to invest in initiatives that ensure compliance with regulatory frameworks.

In addition, we are also investing in new opportunities to develop innovative, value-add solutions that ensure our long-term relevance to clients. Such innovations may be enabled by new technologies – for example, distributed ledger technology – and are developed either in-house or in collaboration with specialised partners.

Investing to strengthen our European core

Europe has been moving towards a single regulated marketplace covering every facet of its financial markets. In line with the European Commission's plans for a Capital Markets Union (CMU), the new CSD Regulation (CSDR) brings a single, pan-European rulebook to the post-trade sector, while the European Central Bank's TARGET2-Securities (T2S) platform is gearing up to provide a single settlement environment for the Eurozone.

Meanwhile, the outlook for Europe is clouded by political uncertainty, combined with the potential ramifications of ongoing corporate initiatives by some of the region's financial market infrastructures.

Euroclear has a long-standing commitment to Europe, holding 60% of Eurobonds (principally through Euroclear Bank, the group's ICSD) and over 50% of European capital market securities across the group's seven (I)CSDs across the region.

As the operating environment continues to evolve, we continue to intensify investment that supports clients in navigating these changes, while enhancing the safety and efficiency of Europe's capital markets.

- *TARGET2-Securities*

In September 2016, Euroclear's ESES CSDs (Euroclear Belgium, Euroclear France and Euroclear Nederland) reached a significant milestone by successfully connecting to the T2S platform.

T2S is designed to increase cross-border settlement efficiency in Europe and presents new opportunities for firms to access liquidity and finance their activity more effectively. The group has completed a number of investments to increase interoperability between Euroclear Bank and the ESES CSDs. For our clients, this means access to global commercial and European central bank liquidity to meet short-term liquidity needs.

We continue our efforts to support our clients as we strengthen our range of harmonised services for both issuers and investors across all T2S markets.

- *CSD regulation (CSDR)*

CSDR is another important step in harmonising European financial markets, by providing a single, pan-European rulebook for CSDs. It involves a complete review and standardisation of rules applicable to (I)CSDs in the European Union, and also standardises settlement cycles and settlement discipline procedures across Europe.

CSDR will also require changes by our clients to comply with record keeping requirements, in particular. The introduction of standardised settlement discipline and buy-in regimes across Europe is scheduled for 2019.

Getting ready for the provisions of CSDR has been a major focus for the group throughout 2016. The Euroclear (I)CSDs are preparing their applications for authorisation under the new regulation and expect to submit our filings to obtain their licenses in accordance with the official timelines, currently anticipated for the end of September 2017.

- *Safe and stable domestic CSDs*

We continue to invest in our domestic CSDs to provide robust market infrastructures for the markets we service.

In Finland, the group has been working to replace Euroclear Finland's entire securities processing infrastructure with a new settlement system, known as Infinity, with phase one implemented in 2015. The group is working with clients on the implementation schedules of its remaining releases in order to ensure the delivery of a safe and stable platform, as well as connection to T2S.

We are also committed to upgrading Sweden's financial market infrastructure, while meeting its regulatory imperatives. In 2017, Euroclear Sweden will extend the functionality of its existing IT platform to meet the demands of CSDR, before completing development work on its new IT platform, known as EuroclearSafe.

The benefits of having robust market infrastructures was demonstrated by the performance of Euroclear UK and Ireland's CREST settlement system throughout the post-Brexit market volatility, a system that celebrated its 20th anniversary in 2016. While there are no immediate operational impacts resulting from Brexit, we are working closely with Irish market participants to minimise the impact of any potential changes that may be required in the way the group settles Irish securities markets via TARGET2.

- *Enhanced cyber resilience*

Security, including effective controls to counter cyber-crime, is an area that Euroclear has always taken very seriously, and the group has continuously invested in controls that maintain the resilience of our systems.

The financial industry has awakened to the evolving risks posed by cyber threats, which have demonstrated increased levels of complexity, sophistication and propensity to target the sector over recent times.

Given our role as financial market infrastructure, we have been at the forefront of collaborative efforts to increase cyber resilience in the industry. In addition, we have taken steps to strengthen our own cyber security capability, through the roll-out of a new multi-year programme that started in 2016. We have already made progress in further interlinking our cyber security defences with business systems, with plans in place to develop our cyber intelligence, analytics and reporting, and to embed further our security-conscious culture throughout Euroclear.

Growing relevance in collateral management, funds and international markets

As an open financial market infrastructure, Euroclear supports the evolving requirements of our clients as they look to benefit from the opportunities created by an increasingly interconnected global economy.

- *Global collateral management*

Financial market participants are increasingly demanding collateral that can be mobilised across borders and time zones. With new global regulations in the un-cleared, over-the-counter (OTC) derivatives market taking effect in 2016, the demand for collateral is poised to accelerate in the years ahead.

A key tenet of our strategy has been to support the financial market's requirement for a neutral, interoperable utility to source, mobilise and segregate such collateral. This led us to launch the Euroclear Collateral Highway in 2012, the world's first open architecture global infrastructure for collateral management.

The Collateral Highway provides a comprehensive solution for managing collateral, offering clients a complete view of exposures across the full spectrum of their asset classes. In addition to more traditional collateral management functions (typically repos, securities lending, derivatives and access to central bank liquidity), our range of collateral management solutions includes dedicated services for corporate treasurers, and a specialised equity financing service. By the end of 2016, the average daily collateralised outstanding on the Collateral Highway reached €1,072 billion.

Our joint venture with the Depository Trust & Clearing Corporation (DTCC), DTCC-Euroclear GlobalCollateral Ltd (DEGCL), is connecting two of the most important pools of collateral to provide a truly global, end-to-end collateral management solution.

In 2016, we began to rollout DEGCL's Collateral Margin Utility (CMU) as a step to support clients in complying with new OTC derivatives regulations, enabling unprecedented operating efficiencies to market participants and improving the stability and soundness of financial markets.

- *Servicing funds*

Funds are increasingly the means by which investors are choosing to participate in international markets, and a way for issuers to efficiently access a global investor base. Through its expanding funds network, Euroclear is establishing itself as the place for funds, providing a single entry point for the effective distribution of cross-border, offshore and domestic funds.

In early 2016, we launched Euroclear FundsPlace, a new umbrella brand for the group's fund solutions. Our range of trade and post-trade services for funds is fully automated, to drive out the cost, risks and complexity associated with the manual processing of fund trades. These services include account opening, order routing, settlement and asset servicing, providing access to a network of over 900 fund administrators. As an important provider of fund processing services across Europe, we routed over 11 million orders through our FundsPlace platforms in 2016.

Meanwhile, the international Exchange-Traded Fund (ETF) structure continues to gain popularity amongst issuers and investors alike, bringing with it a simplified issuance structure and access to a global investor base.

BlackRock, the world's largest provider of ETFs, was the inaugural issuer of international ETFs in 2013. Early in 2016, BlackRock completed the migration of its entire suite of domestic ETFs to the international issuance structure, the largest ever corporate action in the ETF industry that transferred assets valued at over $200bn.

Meanwhile, State Street moved 29 ETFs to the international structure, as part of its decision to transfer settlement for 40 of its SPDR ETFs to Euroclear's FundSettle platform.

We also collaborated with a number of issuers who sought to use the international ETF structure to provide a global investor base with access to Asian markets.

Hong Kong based fund manager, Fullgoal Asset Management issued an RMB-denominated ETF in the international structure, while ICBC Credit Suisse Asset Management International chose Euroclear Bank for clearing and settlement of its first internationally-listed China equity ETF.

In early 2017, GF International Asset Management announced the launch of an international ETF, which would be the first fund product launched by a Europe-based Chinese asset manager that gives investors access to large and mid-cap equities on the Shanghai and Shenzhen stock exchanges in China via the Renminbi Qualified Foreign Institutional Investor (RQFII) scheme.

- *International markets*

Across the globe, growth economies are seeking to attract foreign investors to help fund long-term development needs. At the same time, international investors are seeking opportunities to diversify and increase the profitability of their investments around the world, particularly during a period of historically low yields in Europe and North America.

To this end, we made further progress in bringing benefits to domestic capital markets that might otherwise have more limited access to global participants, with the aim of bringing more efficient capital flows and providing stability to these financial markets.

Following the inclusion of the Chinese Renminbi in the International Monetary Fund's SDR currency basket, Euroclear has sought to meet the needs of its central bank and supranational clients by facilitating access to Chinese government bonds. Euroclear continues to work closely with the Chinese authorities to support their ambition of increasing international investment into China's onshore fixed income market.

In January 2017, the Chilean government announced a series of reforms to open access to the country's domestic financial markets to international investors. This was a result of close cooperation between the Chilean Ministry of Finance and Euroclear to align post-trade processes with international standards and to set up a link with Euroclear Bank to make Chile 'Euroclearable'.

We remain in close dialogue with financial markets elsewhere in Latin America as well as other growth economies in the Middle East and Asia as we seek to support their ambitions. This has led us to support two notable sovereign debt issuances in the course of 2016. Firstly as Argentina returned to the global debt markets with the successful launch of a $16.5 billion bond, and then as the Kingdom of Saudi Arabia launched its first ever issuance totalling $17.5 billion.

- *Exploring innovative value-add solutions*

Our strategy extends beyond our strong core and growth initiatives to explore new opportunities to support our clients' evolving needs. Frequently, we are using a collaborative approach by partnering with specialised providers, particularly in financial technology, to develop solutions efficiently.

For example, we have participated in working groups to explore how distributed ledger technology (DLT) might bring post-trade efficiencies to sub-optimised areas, such as London's gold bullion market.

As one of the leading providers of post-trade services, we bring a different perspective to the application of DLT. In the course of 2016, we published two studies on DLT, the first looking 'beyond the hype', while the second, published jointly with Slaughter and May, examines the regulatory frameworks that might be needed for broader adoption in the post-trade space.

We have also explored ways to make the post-trade sector work more smoothly. Launched during 2016, the group's partnership with Taskize, an innovative solution that helps people across financial operations to work together, has already attracted strong levels of customer interest.

Key business parameters

Net fee and commission income stems mainly from the provision of settlement, asset servicing and other services.

- Settlement related fee and commission income is a function of the number of international and domestic transactions settled in the Euroclear group and is thus impacted by trading activities and investor confidence in the financial markets.
- Asset servicing related fee and commission income is mainly a function of the value of securities held for Euroclear clients in our (I)CSDs. The value of bonds is based on nominal value, whilst for equities, their market value is taken into consideration.
- Other services include global Collateral Highway services. The global Collateral Highway services generate income in relation to the daily value of collateral provision outstanding, which is impacted by the activity in the repo market as well as by other factors such as the ECB's liquidity programmes, including long-term refinancing operations.

Interest income stems principally from Euroclear Bank's clients' cash balances invested partially in short term deposits and in money market short term securities and from the investment of Euroclear Bank's capital, together with retained earnings. Interest income is dependent on the evolution of short-term interest rates.

Administrative expenses include staff costs, depreciation and amortisation as well as other operating expenses. Administrative expenses are impacted to a certain level by business volume levels as well as by inflation.

Operating highlights

The Euroclear group delivered robust business performance in 2016 driven by increased activity levels and continued discipline to manage core operating costs, despite regulatory-driven cost pressures.

The value of securities held for Euroclear clients at the end of 2016 reached an all-time high of €27.7 trillion, a 1% increase compared to €27.5 trillion in 2015.

Turnover, or the value of securities transactions settled, decreased by 2% to €655.4 trillion in 2016. The number of netted transactions settled in the Euroclear group achieved 195.9 million in 2016, a 3% increase compared to 190.7 million in 2015.

Euroclear's global Collateral Highway was a record of average daily outstandings at the end of 2016 of €1,072 billion, up by 0.4 % compared to last year. The sustained volumes in the Euroclear's global collateral management infrastructure reflect strong needs from market participants to reduce settlement risk and maximise their asset protection, in line with regulatory requirements.

Average overnight cash deposits decreased by 29% in 2016 to €18.1 billion compared to €25.3 billion in 2015.

Financial performance highlights

The consolidated results for the year are set out on page 13 of the financial statements.

Net fee and commission income reached €984.7 million in 2016, an increase of 0.2% compared with last year.

Net interest income reached €123.1 million, compared to €99 million last year, due to higher interest rate margins despite lower average client's balances.

Operating income is composed of net fee and commission income, net interest income and other income and reached €1,164 million, an increase of 3% compared with 2015.

Administrative expenses increased by 24% to €926.3 million in 2016 resulting from a one-off compensation payment linked to the license agreement termination and to provisions for early retirement.

Operating profit before impairment and taxation was €230.6 million, a decrease of 39% compared with €379.4 million in 2015. After exclusion of the one-off expenses the operating profit before impairment and taxation increased by 3% compared to last year.

Taxation: The effective tax rate is stable at 26%, compared to 27% in 2015.

Profit for the year: The profit after tax for the year ended 31 December 2016 reached €167.9 million, compared with a profit of €275.7 million for the year ended 31 December 2015.

Balance sheet: Total assets amounted to €22,262 million on 31 December 2016, up €380 million on the previous year. Loans and deposits are almost flat at €17.8 billion and €17.9 billion, respectively. Total shareholders' equity is stable at €3,354 million in 2016 compared to €3,374 million in 2015.

Share capital: The total number of issued shares of Euroclear SA/NV remained flat, amounting to 12,014,560 at the end of 2016.

Employee evolution

The average number of persons employed by Euroclear SA/NV during the year was 3,940 compared to 3,857 in 2015.

Post balance sheet events

There are no important post-balance events to report for the company and its subsidiaries.

Information on circumstances that might materially influence the development of the consolidated perimeter

No circumstances occurred that might materially influence the development of the company.

Research and development

The Euroclear group has continued investing in research and development. These investments are linked to the performance and resilience of our systems as well as business developments, which are described in more detail in the 'Business review' section of this report. The group also continued investing in market research in line with its mission to provide increasingly commoditised market infrastructure services.

Euroclear is a founding member of TransConstellation, a non-profit organisation promoting Belgium as a centre of excellence in financial transaction processing. During 2015, a number of Euroclear group employees attended the training modules offered by TransConstellation Academy, a training centre run in collaboration with the Solvay Brussels School of Economics & Management.

Risk management in Euroclear

Enterprise Risk management framework and governance

Euroclear operates under a strong market infrastructure regulatory framework, and is a user owned organisation with strong client participation at Board-level.

Euroclear intends to maintain its strong reputation in the financial industry for its safety and resilience and for the quality of its products and post-trade services, In this context, the Board considers that a strong and effective risk governance framework, underpinned by a sound risk culture, is critical to the overall effectiveness of Euroclear's risk management arrangements. To ensure the organisation's risk arrangements meet Board, market and regulatory expectations, the Euroclear group has initiated a group-wide risk transformation programme across the three lines of defence. The programme aims to reinforce Euroclear's risk management framework in line with the increasing regulatory requirements including further clarification of the roles and responsibilities of the Board and its Committees, Senior Management, Line Management, and the Control Functions. Focus has been put also on the continuous integration of the regulatory evolution in the overall risk framework.

The Board oversees that effectiveness and independence of the control functions are in place. In particular, it ensures that the Risk Management function provides robust, independent oversight of risk-taking activities to help Euroclear achieve its goals and deliver its strategy within the Board's risk appetite. The Risk Management function does this by: aiming to deliver and maintain an appropriate Enterprise Risk Management (ERM) framework; providing the Board and Senior Management with high quality, independent risk advice and guidance; and helping foster a healthy risk culture throughout the organisation. As part of the risk transformation programme, the Risk Management function is reinforcing its regulatory monitoring capability and risk management capabilities.

The ERM framework structures the way Euroclear manages its risks, within the Board's risk appetite, whilst pursuing its strategy and corporate objectives. It also details the roles and responsibilities of the three lines of defence, in line with the Board's expectations and the governance arrangements.

The first line of defence is the primary source of (non-independent) assurance on the adequacy and effectiveness of the control environment to Senior Management and the Board. The first line of defence provides this assurance through amongst others regular risk and control self-assessments, 'positive assurance reports', 'assurance maps' and an annual internal control system report. The assurance maps are complemented by independent Risk Management (second line of defence) and Internal Audit (third line of defence) opinions. This regular reporting by the three lines of defence allows frequent, effective and comprehensive monitoring of the control environment. Moreover, it contributes to the effective operation of Euroclear's three lines of defence model whereby the Risk Management function plays its role as an independent challenger to the first line of defence and where Internal Audit provides comprehensive assurance based on the highest level of independence and objectivity.

Risks affecting the group

All of our entities face *operational* risk (the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events). Effective identification, monitoring, management and appropriate reporting are at the centre of our approach. Being a market infrastructure, the integrity, confidentiality and availability of our and our clients' data, and the continuous availability of our services, is very important.

Members of Euroclear group are designated as critical national infrastructure in seven countries. Therefore as security and resilience is a key aspect of our approach to operational risk we have developed and tested comprehensive processes in all entities to ensure the security and continuous availability of business-critical services, including effective management response to incidents and crises. Therefore security remains high on our agenda. All locations have appropriate security and contingency arrangements for recovery from workplace disruptions; supplemented by three geographically separate data centres to sustain operations in the event of a local and regional- scale disaster. Disaster recovery response capability is proven through regular switches of activity between the primary data centres. We also regularly exercise and test our operational and management response and provide adequate training at all levels of the organisation.

Financial risks are borne mainly by the ICSD, Euroclear Bank, in its role as single-purpose settlement bank. The CSDs of the group have a very low risk appetite. They offer only securities settlement services in central bank money and do not provide credit to clients. They do not engage in operations with counterparties, except for the investment of their own funds.

As a settlement bank, Euroclear Bank mainly faces collateralised intra-day *credit* exposures on its clients. In addition, it runs credit risk resulting from the intra-day use of a high-quality correspondent network and from short-term placements, mainly by using reverse repos, of clients' end-of-day cash positions in the market with high-quality counterparties.

Because *liquidity* is key for the efficient functioning of Euroclear Bank, it has built a sound framework to ensure smooth day-to-day operations and have a high level preparedness to cope with unexpected and important liquidity shocks.

A very low level of market risk (interest rate and foreign exchange rate risks only) arises as a by-product of the investment of Euroclear Bank's capital (interest rate risk) and future earnings (interest rate and foreign exchange rate risks). There is no trading book. A hedging strategy was put in place to mitigate interest rate risk and foreign exchange risk.

Compliance

The group-wide ethical and compliance risk management framework allows Euroclear to adequately identify, monitor and manage the full spectrum of legal and compliance risks (including conduct risk). These include, amongst others, fraud, market abuse and money laundering. In addition, a specific focus is devoted to controls linked to economic sanctions taken by authorities. This framework is supported by a major communication effort (e-learning, case-based compliance tests, etc.) that helps maintain the staff's high levels of awareness.

Supervision and regulation

The National Bank of Belgium and the Financial Services and Markets Authority are the supervisors of Euroclear Bank. The National Bank of Belgium is the lead regulator of Euroclear SA/NV. In addition, individual CSDs are supervised by their respective local regulator and central bank, which set and monitor, among others, their capital adequacy, liquidity requirements, governance and internal control systems.

Recovery plan

In line with regulatory rules and guidelines, we prepared recovery plans for each of the group entities as well as a plan for the group. These plans are approved by the Board of Directors, upon recommendation of the Risk and Audit Committees on a yearly basis. These recovery plans are designed to allow Euroclear entities to recover their financial health in the face of extreme stress scenarios and thereby avoid going into resolution. To that aim, they identify and analyse a number of recovery options that the entity could take in order to restore its capital base, liquidity position or profitability, over a short- to- medium timeframe.

Detailed information on the risks faced by Euroclear, as well as its risk management strategies, policies and processes can be found in Euroclear's yearly Pillar 3 report on www.euroclear.com as well as in Note III to the Consolidated financial statements.

Non-statutory audit services

The amount of fees charged to Euroclear SA/NV and its subsidiaries for non-audit services amounted to €1,040,000 the largest part of it relating to the ISAE 3402 report. Further details of fees for audit and non-audit services are provided in Note X of the financial statements.

Publicity of external mandates

Details of the reportable directorship mandates and managerial functions exercised in companies outside the Euroclear group by the members of the Board and the management of Euroclear SA/NV are available on Euroclear's public website (www.euroclear.com).

Individual and collective Committee member skills

All members of the Audit Committee, the Risk Committee, the Nominations and Governance Committee and the Remuneration Committee are non-executive directors of the Company and at least one member of the Audit Committee, the Risk Committee, the Nominations and Governance Committee and the Remuneration Committee is independent within the meaning of Article 526ter of the Belgian Companies Code. The committees have the correct knowledge base and skills among their members and each member has the adequate personal attributes in order for the committee to fulfil its role efficiently.

Board advisory committees

Audit Committee (AC)

The AC is comprised of seven non-executive directors of the Company. All members of the AC collectively have in-depth knowledge of the financial markets and services and they have an understanding of the company's business, accounting and audit matters. At least one member is competent in accounting and/or audit matters.

Risk Committee (RC)

The RC is comprised of seven non-executive directors of the Company, supported by an advisor. The RC is composed in such a way to assist and advise the Board of Directors in its oversight of the Group's risk management governance structure, risk tolerance, appetite and strategy and key risks as well as the processes for monitoring and mitigating such risks. The members have the skills and experience to be able to understand and oversee such risk strategy, risk appetite and risk tolerance of the Company and the Group.

Nominations and Governance Committee (NGC)

The NGC is comprised of seven non-executive directors of the Company. The NGC is composed in such a way to be able to properly and independently assist and advise the Board of Directors on all matters in relation to the composition and functioning of the Board and Board Committees of the Company, in particular, on the fit and proper character of their members, on the management succession planning as well as on corporate governance matters.

Remuneration Committee (RemCom)

The RemCom is comprised of seven non-executive directors of the Company. The RemCom is composed in such a way so as to properly and independently assist and advise the Board of Directors on remuneration policies and practices as a whole taking into account the risks and liquidity needs of the Company.

By order of the Board

Marc Antoine Autheman
Chairman of the Board
23 February 2017

Board and Commitees - composition

as at 31 December 2016

	NAME	Euroclear SA Board	Audit Committee	Risk Committee	Remuneration Committee	Nominations & Governance Committee	Management Committee
1	**Marc Antoine Autheman (President)** Independent	•			• (chair)	•	
2	**Eddy Wymeersch (Vice-Président)** Independent	•			•	•	
3	**Michel Berthezène**	•			•	•	
4	**Ingeborg Boets** Independent	•	• (chair)				
5	**Cian Burke** HSBC	•	•				
6	**Anthony Carey** State Street International Ireland Ltd. (appointed 12 July 2016)	•		•			
7	**Patrick Colle** BNP Paribas Securities Services	•	•				
8	**Stephen Davies** Bank of America Merrill Lynch (resigned 19 October 2016)	•	•				
9	**John Devine** Independent	•	•				
10	**Xiaomei Fan** Kuri Atyak Investment Ltd. (appointed 8 December 2016)	•	•				
11	**Mark S. Garvin** JP Morgan plc	•			•	• (chair)	
12	**Isabelle Hennebelle** Goldman Sachs	•		•			
13	**Toru Horie** Mizuho Trust & Banking S.A. (resigned 10 May 2016)	•	•				
14	**Thomas Isaac** Citigroup	•		•			
15	**Masashi Kurabe** Mitsubishi UFJ Investor Services &	•			•	•	
16	**Francis La Salla** Bank of New York Mellon	•			•	•	
17	**Xiaochi Liu** Kuri Atyak Investment Ltd. (resigned 8 December 2016)	•			•	•	
18	**Francois Marion** CACEIS	•	•				
19	**Neil Martin** Credit Suisse (resigned 23 February 2016)	•		•			
20	**Nils-Fredrik Nyblaeus** SEB AB	•		• (chair)			
21	**Franco Passacantando** Independent	•		•			
22	**Bruno Prigent** Société Générale	•		•			
23	**Satvinder Singh** Deutsche Bank	•		•			
24	**Tsutomu Suzuki** Mizuho Trust & Banking S.A. (appointed 22 November 2016)	•	•				
25	**Clare Woodman** Morgan Stanley EMEA	•			•	•	
26	**Timothy Howell** Executive Director CEO Euroclear SA (resigned 31 December 2016)	•					• (chair)
27	**Frédéric Hannequart** Executive Director	•					•
28	**Godelieve Mostrey** Executive Director CEO Euroclear SA (as from 1 January 2017)	•					• (chair)
	Bernard Frenay						•
	Yves Poullet						•
	Peter Sneyers (appointed as of 20 May 2016)						•
	Valérie Urbain						•
	Jo Van de Velde						•
	Luc Vantomme (resigned as of 20 May 2016)						•
	ADVISOR						
	Andrew France			•			

Market Advisory Commitees - composition
as at 31 December 2016

Surname	Name	Representing	Belgium	The Netherlands	France	ESES	Finland	Ireland	Sweden	United Kingdom	X-MAC
Addenbrooke	**Chris**	Capita Financial Group								•	
Ahola	**Maarit**	Svenska Handelsbanken AB Finland					•				
Attia	**Anthony**	Euronext			•						
Assouan	**Emmanuelle**	Banque de France			•	•					
Barber	**Richard**	Citibank International plc		•		•				•	
Barrett	**Richard**	International Financial Data Services (UK) Ltd								•	
Berndsen	**Ron**	De Nederlandsche Bank NV		•		•					
Bongers	**Pieter**	Rabobank Nederland		•		•					
Börjesson	**Björn**	Directeur Independent du Conseil d'Administration d'Euroclear Finland/Sweden							**Obs.**		
Brånfelt	**Sofia**	Swedbank AB							•		
Brink	**Henk**	KAS Bank N.V.		•		•					
Bruggeman	**Henk**	DACSI		**Obs.**							
Castelanelli	**Philippe**	HSBC			•	•				•	
Cattelin	**Marc**	Natixis			•						
Chatterton	**Simon**	Barclays								•	
Cronin	**Daragh**	Central Bank of Ireland						•			
Daniel	**David**	UBS								•	
Davies	**Toby**	Bank of England								•	
de Fournoux	**Emmanuel**	AMAFI			•						
de Leusse	**Guy**	Entreprises d'Investissement			•						
de Nexon	**Eric**	Société Générale			•	•					
De Nul	**Kris**	KBC NV	•			•					
De Wit	**Dominique**	Groupe Crédit Agricole SA			•	•					
Decker	**Adrien**	Crédit Mutuel/CIC			•	•					
Dijmarescu	**Diana**	JPMorgan Chase & Co									•
Doyle	**Eamonn**	Davy Stockbrokers						•			
Dwyer	**Stephen**	Goodbody						•			
Edwards	**Paul**	Bank of New York Mellon								•	
Fageräng	**Magnus**	Handelsbanken Capital Markets							•		
Farrell	**Albert**	Bastow Charlton						•			
Farrell	**Mary**	Central Bank and Financial Services Authority of Ireland						•			
Fleming	**Peter**	Skandia								•	
Fors	**Göran**	Skandinaviska Enskilda Banken AB							• (C)		•
Fromont	**Guillaume**	CACEIS			•	•					
Guillaumin	**Valérie**	ICMA			**Obs.**						
Halligan	**Donald**	Capita Registrars (Ireland) Limited						•			
Healy	**Brian**	Irish Stock Exchange						• (C)			•
Hellstöm	**Eva**	Sveriges Riksbank							•		
Hemelaar	**Bas**	ABN AMRO Clearing Bank NV		•		•					
Hemon	**Christophe**	LCH.Clearnet SA			•						
Hermansson	**Kerstin**	Swedish Securities Dealers Association							•		
Humphery	**Marye**	Upper Woolwich								• (C)	•
Jousimies	**Panu**	Evli Bank plc					•				
Kukko	**Heikki**	Nordnet AB					•				
Mairesse	**Anne**	LCH Clearnet SA	•								
Majuri	**Tuomas**	Finnish Federation of Financial Services					•				
McPolin	**Michael**	JP Morgan								•	
Miekk-Ola	**Susanna**	Directeur Independent du Conseil d'Administration d'Euroclear Finland/Sweden					**Obs.**				
Mjörud	**Ola**	Citibank International plc							•		
Meganck	**Kristof**	BNP Paribas Fortis	•			•					
Molony	**Joe**	Computershare						•			
Morecroft	**Mike**	Henderson Global								•	
Morleghem	**Yves**	Belfius Bank	•								
Murray	**Darren**	Investec						•			
Nyman	**Hannu**	Affecto Oyj					•				
Nyrhilä	**Päivi**	Danske Bank					•				
Ozinga	**Richard**	Deutsche Bank		•		•					
Petiot	**Laurence**	Financière d'Uzès			•						
Philips	**Jason**	UK Debt Management Office								•	
Pochet	**Alain**	BNP Paribas			• (C)	• (RC)					• (C)
Price	**Judy**	Investec Wealth								•	
Quinn	**Liam**	National Treasury Management Agency						•			
Råstedt	**Mats**	Nordea Pankki Oy					• (C)				•
Ripatti	**Kirsi**	Bank of Finland					•				
Roegiers	**Damien**	Euronext	•								
Rousseau	**Jean-Paul**	Febelfin - Representative MEC	• (C)			• (RC)					•
Sairio	**Jopi**	Skandinaviska Enskilda Banken AB					•				
Sakki	**Kirsi**	Pohjola Bank plc					•				•
Schricke	**Christian**	ANSA			•						
Sharp	**Neil**	The Royal Bank of Scotland								•	
Smith	**Richard**	TD Direct Investing								•	
Timmermans	**Yvan**	National Bank of Belgium	•			•					
Tricou	**Jean**	Fédération Bancaire Française			•						
Trost	**David**	Northern Trust Limited						•			
van Knorring	**Anna**	State Treasury					•				
Verhoven	**Els**	ING Belgium	•								
Vonk	**Antoine**	Representative ING securities services		• (C)		• (RC)					•
Waesterberg	**Fredrik**	Nordea AB							•		
Wernhall	**Karin**	Swedish National Debt Office							•		
Whelan	**John**	Merrill Lynch								•	

(C) : Chairman (RC) : Rotating Chairman

Consolidated income statement

For the year ended 31 December 2016

(€'000)	Notes	2016	2015
Interest income	VI	164,040	128,961
Interest expense	VI	(40,981)	(30,001)
Net interest income		**123,059**	**98,960**
Fee and commission income	VII	1,393,148	1,367,816
Fee and commission expense	VII	(408,483)	(385,054)
Net fee and commission income		**984,665**	**982,762**
Net interest and fee income		**1,107,724**	**1,081,722**
Dividend income		6,944	4,743
Realised gains/(losses) on investment securities	VIII	2,516	20
Net gains/(losses) on financial assets and liabilities held for trading	IX	27,947	25,871
Net gains/(losses) on foreign exchange		5,343	6,305
Other operating income		13,448	15,346
Operating income		**1,163,922**	**1,134,007**
Administrative expenses	X	(926,300)	(748,058)
Share of the profit/(loss) of investments accounted for using equity method	I	(7,069)	(6,520)
Operating profit/(loss) before impairment and taxation		**230,553**	**379,429**
Impairment	XI	(2,997)	(757)
Operating profit/(loss) before taxation		**227,556**	**378,672**
Taxation	XII, XIII	(59,646)	(103,018)
Profit/(loss) for the year		**167,910**	**275,654**

For the list of companies in the group, see Note I.

The accompanying Notes form an integral part of these financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December 2016

		2016			2015		
(€'000)	Notes	Gross	Tax	Net	Gross	Tax	Net
Changes in other comprehensive income							
Available-for-sale financial assets	XIV, XXII	(45,642)	(65)	(45,707)	115,199	(560)	114,639
Cash flow hedges	XVI, XXII	(1,997)	678	(1,319)	1,963	(667)	1,296
Foreign currency translation reserve	XXII	(28,792)	-	(28,792)	11,025	-	11,025
Recyclable subsequently to profit/(loss)		(76,431)	613	(75,818)	128,187	(1,227)	126,960
Defined benefit plans	XX	(29,894)	9,572	(20,322)	34,229	(10,617)	23,612
Drop down of subsidiaries	I	(1,492)	-	(1,492)	-	-	-
Not recyclable to profit/(loss)		(31,386)	9,572	(21,814)	34,229	(10,617)	23,612
Other comprehensive income for the year		**(107,817)**	**10,185**	**(97,632)**	**162,416**	**(11,844)**	**150,572**
Profit/(loss) for the year		**227,556**	**(59,646)**	**167,910**	**378,672**	**(103,018)**	**275,654**
Total comprehensive income for the year		**119,739**	**(49,461)**	**70,278**	**541,088**	**(114,862)**	**426,226**

The accompanying Notes form an integral part of these financial statements.

Consolidated statement of changes in equity

For the year ended 31 December 2016

(€'000)	Notes	Called up share capital	Share premium account	Other reserves	Retained earnings	Total equity
At 1 January 2016		839,601	1,623,628	291,013	620,055	3,374,297
Changes in other comprehensive income						
- Available-for-sale financial assets	XXII	-	-	(45,707)	-	(45,707)
- Cash flow hedges	XXII	-	-	(1,319)	-	(1,319)
- Foreign currency translation reserve	XXII	-	-	(28,792)	-	(28,792)
- Defined benefit plans		-	-	-	(20,322)	(20,322)
- Drop down of subsidiaries	I	-	-	-	(1,492)	(1,492)
Transfer to legal reserve	XXII	-	-	9,856	(9,856)	-
Profit/(loss) for the year		-	-	-	167,910	167,910
Dividends paid	XXIII	-	-	-	(90,110)	(90,110)
At 31 December 2016		**839,601**	**1,623,628**	**225,051**	**666,185**	**3,354,465**

		Called up share capital	Share premium account	Other reserves	Retained earnings	Total equity
At 1 January 2015		839,601	1,623,628	152,221	544,802	3,160,252
- Available-for-sale financial assets	XXII	-	-	114,639	-	114,639
- Cash flow hedges	XXII	-	-	1,296	-	1,296
- Foreign currency translation reserve	XXII	-	-	11,025	-	11,025
- Defined benefit plans		-	-	-	23,612	23,612
Transfer to legal reserve	XXII	-	-	11,832	(11,832)	-
Profit/(loss) for the year		-	-	-	275,654	275,654
Dividends paid	XXIII	-	-	-	(212,180)	(212,180)
Liquidation of minority interest		-	-	-	(1)	(1)
At 31 December 2015		**839,601**	**1,623,628**	**291,013**	**620,055**	**3,374,297**

The accompanying Notes form an integral part of these financial statements.

Consolidated statement of financial position

As at 31 December 2016

(€'000)	Notes	2016	2015
Assets			
Cash and balances with central banks	IV	5,639,674	3,399,246
Loans and advances	IV	12,145,763	14,545,568
Available-for-sale financial assets	XIV	2,840,759	2,440,860
Financial assets held for trading	XV	40,063	6,897
Derivatives used for hedging	XVI	568	1,538
Current income tax assets		11,785	13,679
Deferred income tax assets	XIII	153,772	131,793
Other assets		164,427	125,542
Pre-payments and accrued income		147,089	129,568
Pension asset	XX	540	533
Property, plant and equipment	XVII	90,492	101,609
Goodwill and intangible assets	XVIII	1,010,045	976,264
Investments in subsidiaries and joint ventures	I	17,274	8,857
Total assets		**22,262,251**	**21,881,954**
Liabilities			
Deposits from central banks	IV	1,165,106	1,193,267
Deposits from banks and customers	IV	16,919,785	16,635,106
Financial liabilities held for trading	XV	32,292	4,533
Derivatives used for hedging	XVI	1,026	-
Other liabilities		285,092	290,696
Accruals and deferred income		228,884	214,873
Current income tax liabilities		101,020	72,650
Deferred income tax liabilities	XIII	2,938	3,760
Provisions for liabilities and charges	XIX	46,451	13,183
Pension deficit	XX	125,192	79,589
Total liabilities		**18,907,786**	**18,507,657**
Shareholders' equity			
Called up share capital	XXI	839,601	839,601
Share premium account		1,623,628	1,623,628
Other reserves	XXII	225,051	291,013
Retained earnings		666,185	620,055
Total shareholders' equity		**3,354,465**	**3,374,297**
Total liabilities and shareholders' equity		**22,262,251**	**21,881,954**

The accompanying Notes form an integral part of these financial statements.

These financial statements were authorised for issue by the Board of Directors on 23 February 2017 and signed on its behalf by

Marc Antoine Autheman, Chairman of the Board

Consolidated statement of cash flows

For the year ended 31 December 2016

(€'000)	Notes	2016	2015
Profit/(loss) before taxation		**227,556**	**378,672**
Adjustments for:			
- Depreciation and amortisation	XVII, XVIII	32,479	27,987
- Impairment	XI	2,997	757
- Interest on cash and balances with central banks and loans and advances	VI	(164,028)	(128,952)
- Interest on deposits from central banks and banks and customers	VI	31,003	21,971
- Interest on subordinated loan added back	VI	-	1,878
- Dividends received		(6,944)	(4,743)
- Realised gains on available-for-sale financial assets	VIII	(2,516)	-
- (Gains)/losses on disposal of property, plant and equipment		-	(159)
- Provisions for liabilities and charges	X	36,748	(1,396)
- Share of the (profit)/loss of investments accounted for using equity method	I	7,069	6,520
- Acquisition of Euroclear Intellectual Property	XXVI	121,200	-
Other non-cash movements		53,156	120,487
of which effect of exchange rate changes		28,968	81,119
- Interest received on cash and balances with central banks and loans and advances		163,199	126,317
- Interest paid on deposits from central banks and banks and customers		(30,557)	(21,964)
Cash flows from operating profit/loss before changes in operating assets/liabilities		**471,362**	**527,375**
Net increase/(decrease) in deposits from banks and customers		(88,473)	(5,489,185)
Net (increase)/decrease in monetary reserve	IV	25	308
Net (increase)/decrease in loans and advances	IV	1,405,636	(305,509)
Net (increase)/decrease in other assets		(39,079)	24,911
Net increase/(decrease) in other liabilities		(5,977)	39,111
Net cash inflow/(outflow) from operating activities		**1,743,494**	**(5,202,989)**
Tax paid		(40,035)	(93,097)
Net cash from operating activities		**1,703,459**	**(5,296,086)**
Cash flows from investing activities			
Liquidation of minority interest		-	(1)
Investments in subsidiaries and joint ventures	I	(16,879)	-
Purchase of available-for-sale financial assets	XIV	(6,263,183)	(11,465,752)
Redemption and disposals of available-for-sale financial assets	XIV	5,798,640	12,860,132
Purchase of property, plant and equipment	XVII	(13,876)	(22,676)
Purchase of intangible assets, including trademarks	XVIII	(55,124)	(42,201)
Acquisition of Euroclear intellectual property	XXVI	(121,200)	-
Sale of property, plant and equipment		2	160
Dividends received		6,944	4,743
Reimbursement of loans to related party	XXVI	2,000	2,000
Net cash from/(used in) investing activities		**(662,676)**	**1,336,405**
Cash flows from financing activities			
Interest paid on subordinated liabilities		-	(4,155)
Internal convertible loan from related party	XXVI	200,000	-
Redemption of subordinated liabilities		-	(98,100)
Equity dividends paid	XXIII	(90,110)	(212,180)
Net cash from/(used in) financing activities		**109,890**	**(314,435)**
Net increase/(decrease) in cash and cash equivalents		**1,150,673**	**(4,274,116)**
Cash and cash equivalents at beginning of year		15,079,417	18,222,232
Effects of exchange rate changes on cash and cash equivalents		88,252	1,131,301
Cash and cash equivalents at end of year		**16,318,342**	**15,079,417**
Cash and cash equivalents at end of year comprise:			
Cash and balances with central banks	IV	5,639,674	3,399,246
Excluding monetary reserve		-	(25)
Loans and advances	IV	12,145,763	14,545,568
Excluding loans and advances with intitial maturity above three months		(1,467,095)	(2,865,372)
Cash and cash equivalents at end of year		**16,318,342**	**15,079,417**

Notes to the consolidated financial statements

I. Interests in other entities

I.1. General information

Euroclear SA/NV (the Company) and its subsidiaries (together, the group) arrange for the provision of settlement and related services, including banking services in the case of Euroclear Bank, for domestic and international securities transactions, covering bonds, equities, investment funds and derivatives. Euroclear SA/NV also provides software development and a variety of administrative and non-operational support services to the (I)CSDs in the Euroclear group.

Euroclear SA/NV is a limited liability company and is incorporated and domiciled in Belgium. The address of its registered office is:

Euroclear SA/NV
1 Boulevard du Roi Albert II
1210 Brussels
Belgium

I.2. Subsidiaries

Euroclear SA/NV does not have any non-controlling interests in its subsidiaries other than in Taskize. Judgements and estimates are thus not taken in assessing the subsidiaries' ownership interest. The company does not face any significant restriction on its ability to access or use assets, and settle liabilities, of the group.

In April 2015, Euroclear Investments, the parent company of Euroclear SA/NV, took over a 70% stake in Taskize Limited. Taskize Limted is a start-up company founded to develop and bring to market Taskize Connect, a collaboration software designed to resolve issues in global banking operations within and between firms. In November 2016, the participation was dropped down to Euroclear SA/NV at its acquisition value.

Euroclear Market Solutions Limited an English company, was incorporated on 19 December 2014 as a subsidiary of Euroclear Investments. As a first step, this new company will provide a central infrastructure to enable banks and their counterparties to agree on and manage operations payables and receivables claims. The service has been developed in cooperation with Merit Software, a provider of claims management systems and combines our expertise as operator of financial infrastructure and our relationships with leading global banks, with Merit's expertise and application. In November 2016, the participation was dropped down to Euroclear SA/NV at its acquisition value.

At December 31, 2016, the Company's subsidiaries are as follows:

	Country of incorporation	Nature of business	Proportions of voting rights and ordinary shares held
Consolidated subsidiaries			
Caisse interprofessionelle de dépôts et de virements de titres SA[1]	Belgium	Central Securities Depository for Belgium	100%
Calar Belgium SA/NV[2]	Belgium	Property Investment	100%
EMX Company Limited[1]	United Kingdom	Dormant	100%
Euroclear Bank SA/NV[1]	Belgium	Banking, securities settlement and custody services	100%
Euroclear Finland Oy[1]	Finland	Central Securities Depository for Finland	100%
Euroclear France SA[1]	France	Central Securities Depository for France	100%
Euroclear International Services Limited[1]	United Kingdom	Dormant	100%
Euroclear Market Solutions	United Kingdom	Proprietary services	100%
Euroclear Sweden AB[1]	Sweden	Central Securities Depository for Sweden	100%
Euroclear UK & Ireland Limited[1]	United Kingdom	Central Securities Depository for the United Kingdom and Ireland, and Investment-fund order routing	100%
Nederlands Centraal Instituut voor Giraal Effectenverkeer BV (Necigef)[1]	The Netherlands	Central Securities Depository for the Netherlands	100%
Number of wholly owned subsidiaries			11
Number of non-wholly owned subsidiary			0
Total subsidiaries			11

[1] Held through Euroclear SA/NV
[2] Held through Euroclear Bank SA/NV

Euroclear Finance 2 was liquidated in December 2015 following the redemption in June 2015 of the fixed/floating rate guaranteed non-cumulative perpetual securities.

EMX Company Limited’s investment-fund order routing business was transferred to Euroclear UK & Ireland Limited in September 2010. The company became dormant in the course of 2014.

	Country of incorporation	Nature of business	Proportions of voting rights and ordinary shares held
Non-consolidated subsidiaries			
CIN(Belgium) Limited[1]	United Kingdom	Nominee company	100%
CREST Client Tax Nominee(No.1) Limited[1]	United Kingdom	Nominee company	100%
CREST USD Nominee Limited[1]	United Kingdom	Nominee company	100%
CREST Depository Limited[2]	United Kingdom	Nominee company	100%
CREST International Nominees Limited[1]	United Kingdom	Nominee company	100%
CREST Stamp Nominee(No.1) Limited[2]	United Kingdom	Nominee company	100%
CREST Stamp Nominee(No.2) Limited[2]	United Kingdom	Nominee company	100%
CRESTCo Limited[2]	United Kingdom	Nominee company	100%
EC Nominees Limited[3]	United Kingdom	Nominee company	100%
ENL Nominee Limited[5]	United Kingdom	Nominee company	100%
EOC Equity Limited[3]	United Kingdom	Nominee company	100%
Euroclear Nominees Limited[3]	United Kingdom	Nominee company	100%
Euroclear Treasury Nominee Limited[3]	United Kingdom	Nominee company	100%
Fundsettle EOC Nominees Limited[3]	United Kingdom	Nominee company	100%
Taskize Limited[4]	United Kingdom	Proprietary services	70%
Trinity Nominees Limited[2]	United Kingdom	Nominee company	100%

[1] Held through CREST Depository Limited
[2] Held through Euroclear UK & Ireland Limited
[3] Held through Euroclear Bank SA/NV
[4] Held through Euroclear SA/NV
[5] Held through Nederlands Centraal Instituut voor Giraal Effectenverkeer BV (Necigef)

These companies have not been consolidated since they collectively represent less than 1% of the group consolidated equity, and are therefore not considered as being material.

The aggregate amount of Taskize's 'capital and reserves' and 'net loss' were respectively €3,941,000 and €1,006,000 as at the end of 2016. The participation is recognised at a net book value of €6,294,000 in the statement of financial position.

No transactions have occurred between these companies and the other companies in the group.

I.3. Joint venture

The Depository Trust & Clearing Corporation (DTCC) and Euroclear created a joint venture in September 2014 focusing on collateral processing. The company, DTCC-Euroclear Global Collateral Ltd, is domiciled in the United Kingdom.

The joint venture provides an open industry infrastructure solution for clients as they manage their collateral margin needs, including a Margin Transit Utility (MTU) providing straight through processing to the settlement of margin obligations, and a Collateral Management Utility (CMU) offering optimised collateral mobility and allocation at a global level.

The joint arrangement between DTCC and Euroclear SA/NV qualifies as joint venture. Ownership and governance of the company is shared equally between DTCC and Euroclear with its Board and senior executives drawn from the two firms' management. Under the contractual agreements, unanimous consent is required from the two parties for all relevant activities. The shareholders are jointly responsible for the new company. The joint arrangement is conducted through a separate legal entity, which has been equally funded by the two shareholders. Each party has a 50% interest in the company (covering both MTU and CMU services all together) with equal rights attached to shares, dividends and net assets.

There are neither commitments nor contingent liabilities relating to the group's interest in the joint venture.

DTCC-Euroclear Global Collateral Ltd is not a listed company and there is no quoted market price available for its shares.

	Country of incorporation	Proportions of voting rights and ordinary shares held	Dividends received
DTCC-Euroclear Global Collateral Ltd	United Kingdom	50%	-

(€'000)	2016	2015
Summarised statement of financial position		
Assets		
Cash and cash equivalents	29,082	31,136
Other current assets (excluding cash)	46	22
Non-current assets	13,004	3,609
Total assets	**42,132**	**34,767**
Liabilities		
Other current liabilities (including trade payables)	20,172	17,053
Total liabilities	**20,172**	**17,053**

(€'000)	2016	2015
Summarised statement of comprehensive income		
Operating profit/(loss) before taxation	**(23,714)**	**(17,690)**
Taxation	9,576	3,609
Profit/(loss) for the year	**(14,138)**	**(14,081)**
Total comprehensive income	**(14,138)**	**(14,081)**

50% of the above comprehensive income are recognised in the group's consolidated statement of comprehensive income.

(€'000)	2016	2015
Reconciliation of summarised financial information		
Opening net assets 1 January	17,714	27,784
Capital injection	18,192	-
Profit/(loss) for the year	(14,138)	(14,081)
Loss attributable to 2014	-	1,042
Effect of exchange rate changes	192	2,969
Closing net assets	**21,960**	**17,714**
Interest in joint venture at 50%		
Carrying value	**10,980**	**8,857**

II. Accounting policies

II.1.Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs as adopted by the EU) and IFRIC Interpretations applicable to companies reporting under IFRS.

The consolidated financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial instruments and are prepared on a going concern basis.

The EU has not endorsed IAS 39 Financial Instruments: Recognition and Measurement as issued by the IASB, deciding instead to amend some of the hedge accounting requirements. The group has not applied these hedge accounting requirements and has therefore effectively also complied with IAS 39 in full as issued by the IASB.

The preparation of financial statements in conformity with IFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the company's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in Note III.

II.1.a. Adoption of interpretation and amendments to standards
The following amendments to standards became effective on 1 January 2016:
- Annual improvements to IFRS 2010-2012 cycle
- Amendments to IAS 19 Defined Benefit Plans: Employee contributions
- Annual improvements to IFRS 2012-2014 cycle
- Amendments to IAS 1 Disclosure Initiative
- Amendments to IAS 27 Equity Method in Separate Financial Statements
- Amendments to IAS 16 and IAS 41 Bearer Plants
- Amendments to IAS 16 and IAS 38 Classification of Acceptable Methods of Depreciation and Amortisation
- Amendments to IFRS 11 Accounting of Acquisitions of Interests in Joint Operations
- Amendments to IFRS 10, IFRS 12 and IAS 28 Investment entities - Applying the consolidation exemption

II.1.b. Standards, amended standards and interpretations endorsed by the EU, but not yet effective in 2017
No new standards, interpretations, or amendments to standards became effective on 1 January 2017.

The following new standards will be applied for financial years commencing on 1 January 2018.
- IFRS 9 on Financial Instruments. The group has started its assessment of the classification and measurement of financial assets. Debt and equity instruments are currently classified as available-for-sale financial assets. These assets will satisfy the conditions for classification as at fair value through other comprehensive income (FVOCI) and hence there will be no change to the accounting for these assets. Accordingly, the group does not expect the new guidance to have a significant impact on the classification and measurement of its financial assets.

There will be no impact on the group's accounting for financial liabilities, as the new requirements only affect the accounting for financial liabilities that are designated at fair value through profit or loss and the group does not have any such liabilities.

The new hedge accounting rules will align the accounting for hedging instruments more closely with the group's risk management practices. The group's current hedge relationships will still qualify as continuing hedges upon the adoption of IFRS 9. Accordingly, the group does not expect a significant impact on the accounting for its hedging relationships.

The new impairment model requires the recognition of impairment provisions based on expected credit losses (ECL) rather than only incurred credit losses as is the case under IAS 39. The new model will result in an earlier recognition of credit losses. The group has undertaken a detailed assessment of how its impairment provisions will be affected by the new model. The group does not expect a significant impact on the accounting from the adoption of the ECL, due to the short term nature of the group's financial assets and high level of collateralisation.

The new standard also introduces expanded disclosure requirements and changes in presentation. These are expected to change the nature and extent of the group's disclosures about its financial instruments particularly in the year of the adoption of the new standard.

- IFRS 15 Revenue from Contracts with Customers: The application of this new standard will have no significant impact on the group's financial statements.

II.2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. Unless otherwise stated, these policies have been consistently applied to all the years presented.

II.3. Consolidation

Subsidiaries are all entities over which the group has control. The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date that control ceases.

A group entity controls an investee if and only if the investor has all the following:
- power over the investee;
- exposure, or rights, to variable returns from its involvement with the investee; and
- the ability to use its power over the investee to affect the amount of the investor's returns.

In accordance with IFRS 3, the cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange. Costs directly attributable to the acquisition are expensed. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any minority interest.

The excess of the cost of acquisition over the fair value of the group's share of the identifiable net assets is recognised as goodwill. If the cost of acquisition is less than the fair value of the group's share of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement.

Inter-company transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of impairment of the asset transferred. Where permitted under local legislation, the accounting policies of subsidiaries have been changed to ensure consistency with the policies of the group.

Business combinations involving entities under common control were specifically excluded from the scope of IFRS 3 Business combinations. The group has therefore applied the guidance provided by IAS 8 Accounting policies, changes in accounting estimates and errors, which requires management to consider the requirements and guidance in other international standards and interpretations dealing with similar issues. Management have therefore applied the UK GAAP requirements of Financial Reporting Standard (FRS) 6 Mergers and acquisitions for such business combinations involving entities under common control. This standard allows the assets and liabilities of the parties to the combination to be retained at their book value.

A joint arrangement is an arrangement of which two or more parties have joint control. A joint arrangement has the following characteristics:
- the parties are bound by a contractual arrangement;
- the contractual arrangement gives two or more of those parties joint control of the arrangement.

A joint arrangement is either a joint operation or a joint venture.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost and the carrying amount is subsequently increased or decreased to recognise the group's share of the net result of the joint venture after the acquisition. The group's share of the joint venture's profit or loss is recognised in its income statement. The group's interest in a joint venture or associate is carried in the statement of financial position at its share in the net assets of the joint venture, less any impairment loss. The accounting policies of the joint venture are changed where necessary to ensure consistency with the policies adopted by the group.

II.4. Segment reporting

An operating segment is a component of an entity that engages in business activities from which it may earn revenues and incur expenses.

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Euroclear SA/NV Management Committee.

II.5. Foreign currency translation

II.5.a. Functional and presentation currency

Items included in the financial statements of each of the group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in euro, which is the company's functional and presentation currency.

II.5.b. Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges. Translation differences on non-monetary items measured at fair value through profit or loss are reported as part of the fair value gain or loss. Translation differences on other non-monetary items are included in the foreign currency translation reserve.

II.5.c. Group companies

The results and financial position of all the group's entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each balance sheet presented are translated at the closing exchange rate at the balance sheet date;
- income and expenses for each income statement are translated at average exchange rates for the year; and
- the resulting exchange differences are recognised in the foreign currency translation reserve.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to other comprehensive income, in the foreign currency translation reserve and the hedge of net investments in foreign operations reserve. When a foreign operation is sold, such exchange differences are recognised in the income statement as part of the gain or loss on the sale.

None of the group companies has used the currency of a hyperinflationary economy as its functional currency.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rate.

II.6. Revenue recognition

II.6.a. Interest income and expense

Interest income and expense are recognised in the income statement for all instruments measured at amortised cost using the effective interest rate method. This is a method of calculating the amortised cost of a financial asset or liability and of allocating the interest income or interest expense over the relevant accounting years.

The effective interest rate is the rate that exactly discounts the estimated cash payments or receipts over the expected life of the instrument to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the future expected cash flows are estimated after considering all the contractual terms of the instrument, but not future credit losses.

Group loans to, and deposits from, banks and customers are principally related to Euroclear Bank clients' cash accounts operated in connection with their securities settlement activity, with balances generally changing on a daily basis. Time deposits and the re-deposits of surplus funds rarely have maturities of more than three months.

Interest income and expense on derivative instruments are recorded in profit and loss on an accrual basis.

II.6.b. Fee and commission income and expense

Fee and commission income and expense which respectively represent a return and cost for services rendered (such as safekeeping, settlement and custody) are recognised in the income statement when the related service is performed. Safekeeping fees are based on the monthly average depot value of securities held in custody, while settlement fees are based on the number of settled transactions. Rebates granted are deducted from fee and commission income when declared.

Fee and commission income and expense, which represent a return for credit risk borne or which are in the nature of interest (securities borrowing), are recognised in the income statement over the period of the loan, or on a systematic basis over the expected life of the transaction to which they relate, net of rebates granted.

II.6.c. Dividends

Dividends on available-for-sale equity instruments are recognised in the income statement when the group's right to receive payment is established.

II.6.d. Gains and losses on disposals
Gains and losses on disposals of property, plant and equipment, determined by comparing proceeds with the carrying amount, are included in the income statement in other operating income and administrative expenses respectively.

II.7. Financial instruments

Financial assets are classified into held-to-maturity investments, available-for-sale financial assets, held for trading, or loans and receivables. The group has not designated any financial instrument as at fair value through profit or loss.

II.7.a. Held-to-maturity investments
Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturities that the group's management has the positive intention and ability to hold to maturity. In accordance with IAS 39, the disposal of any more than an insignificant amount of held-to-maturity assets will result in the entire category being tainted and reclassified as available-for-sale for a period of two years (provided no further tainting occurs). Held-to-maturity assets are recognised in the balance sheet on settlement date at fair value plus any directly related transaction costs. They are subsequently measured at amortised cost using the effective interest method less any impairment losses.

II.7.b. Available-for-sale investments
Available-for-sale investments are those financial assets including debt securities and equity shares which are intended to be held for an indefinite period of time, but which may be sold in response to changes in the group's financial environment.

Available-for-sale investments are recognised in the balance sheet on settlement date at fair value. Gains or losses arising from changes in the fair value of such assets are recognised directly in equity, until the asset is either sold, matures or becomes impaired, at which time the cumulative gain or loss previously recognised in equity is released to the income statement. Interest revenues are recognised using the effective yield method.

The fair value of listed debt securities and equity shares reflects the published price at the balance sheet date. In the case of investments with no listed market price, a valuation technique (e.g. recent transactions between willing and knowledgeable parties, discounted cash flows and market multiples) is applied. Where the fair value of unlisted equity investments cannot be reliably measured, they continue to be valued at cost.

II.7.c. Held for trading
A financial asset is classified as held for trading if it is either:
- acquired for the purpose of selling or repurchasing in the near term;
- part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking;
- a derivative that is not a designated and effective hedging instrument.

Assets held for trading are initially recognised and subsequently measured at fair value. The movements in fair value are recognised in the income statement.

II.7.d. Loans and receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially recognised in the balance sheet on settlement date at fair value plus directly related transaction costs, if any, when cash is advanced to the borrowers. They are subsequently measured at amortised cost using the effective interest method.

Long-term loans or receivables that carry no interest are initially recognised at the net present value of all future cash receipts discounted using applicable market interest rates at origination, with the difference between nominal value and net present value recorded in the income statement. The difference between nominal value and net present value is subsequently recognised in the income statement over the life of the investment using the effective interest rate.

II.8. Borrowings

Borrowings are recognised initially at fair value, being the issue proceeds (fair value of consideration received) net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds net of transaction costs and the redemption value is recognised in the income statement over the period of the borrowings using the effective interest rate method.

Preference shares, which carry a mandatory coupon, or which are redeemable on a fixed or determinable future date, are classified as financial liabilities and are presented in other borrowed funds. The coupon on these preference shares is recognised in the income statement as interest expense.

II.9. Derivative financial instruments and hedge accounting

All derivative financial instruments are recognised, and subsequently re-measured, at fair value. Derivative fair values are determined from quoted prices in active markets where available. Where there is no active market for an instrument, fair value is derived from prices for the derivative's components using appropriate pricing or valuation models.

Gains and losses arising from changes in fair value of a derivative are recognised as they arise in profit and loss, unless the derivative is part of a qualifying hedge.

Hedge relationships are formally documented at inception. The documentation includes identification of the hedged item and the hedging instrument, and explains the risk that is being hedged and the way in which effectiveness of the hedge relationship will be assessed at inception and during the period of the hedge. If the hedge is not highly effective in offsetting changes in fair values or cash flows attributable to the hedged risk, consistent with the documented risk management strategy, hedge accounting is discontinued.

The group may enter into three types of hedges: hedges of changes in the fair value of a recognised asset or liability or firm commitment (fair value hedges), hedges of the variability in cash flows from a recognised asset or liability or a forecast transaction (cash flow hedges), and hedges of the net investment in a foreign entity (net investment hedges).

II.9.a. Fair value hedges
Changes in the fair value of derivatives that are designated and which qualify as fair value hedges are recorded in the profit and loss account, together with any changes in the fair value of the hedged asset or liability attributable to the hedged risk. Hedge accounting is discontinued when the hedging instrument does no longer qualify for hedge accounting.

II.9.b. Cash flow hedges
In the case of a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge should be recognised directly in other comprehensive income and released to profit and loss when the hedged item (for instance the forecasted transaction) affects profit and loss. The ineffective portion of the gain or loss on the hedging instrument is recognised immediately in the profit and loss account.

II.9.c. Net investment hedges
A hedge of a net investment in a foreign operation is accounted for similarly to cash flow hedges. The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognised directly in other comprehensive income and released to profit and loss when the foreign operation is partially disposed or sold. The ineffective portion of the gain or loss on the hedging instrument is recognised immediately in the profit and loss account.

II.10. Impairment of financial assets

The group assesses at each balance sheet date whether there is objective evidence that a financial asset or group of financial assets classified as held-to-maturity, available-for-sale or loans and receivables is impaired. A financial asset or portfolio of financial assets is impaired and an impairment loss recognised where there is objective evidence that an event occurring after initial recognition of the asset has adversely affected the amount or timing of future cash flows and this effect can be reliably estimated.

For financial assets carried at amortised cost, the amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the pre¬sent value of estimated future cash flows discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in profit or loss.

Cash flows relating to short-term receivables (less than three months) generally are not discounted. The impairment loss is measured as the difference between the carrying amount of the financial asset and the estimated future cash flows, and is recognised immediately in profit and loss. If, in a subsequent year, the amount of the impairment or bad debt loss decreases and the decrease can be related objectively to an event occurring after the recognition of the original loss, this loss is reversed. The reversal shall not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed.

For financial assets carried at fair value, if there is objective evidence of impairment of an available-for-sale financial asset, the cumulative net loss (difference between amortised acquisition cost and current fair value less any impairment loss previously recognised in profit or loss) that has previously been recognised in equity is removed and recognised in the income statement. If, in a subsequent year, the fair value of an available-for-sale debt instrument increases and the increase can be objectively related to an event occurring after the loss was recognised, the loss may be reversed through profit and loss. Impairments on investments in equity securities cannot be reversed.

II.11. Purchase and resale agreements

Securities purchased under agreements to resell ('reverse repos') are recorded as loans and advances to other banks or customers, as appropriate. The difference between the sale and repurchase price is treated as interest and accrued over the life of the agreements using the effective interest method.

II.12. Goodwill and intangible assets

II.12.a. Goodwill
Goodwill represents the excess of the cost of an acquisition over the fair value of the group's share of the identifiable net tangible and intangible assets of an acquired entity at the date of acquisition. Goodwill is carried at cost less accumulated impairment losses and tested for impairment annually or more frequently where events or changes in circumstances indicate that it might be impaired. For the purpose of impairment testing, goodwill is allocated to cash-generating units, the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. If impairment is identified, the carrying value of goodwill is written down to its net recoverable amount. Impairment losses are immediately recognised in profit and loss and are not subsequently reversed.

II.12.b. Computer software

Computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

Costs associated with the development phase of computer software being developed by, and for use of, the group are capitalised only when the following can be demonstrated:
- technical feasibility;
- intention to complete;
- ability to use or sell the asset;
- generation of probable future economic benefits;
- availability of technical, financial and other resources; and
- reliable measurement of attributable expenditure.

Borrowing costs that are directly attributable to the acquisition or development of software are considered as part of the cost of the software.

The cost of computer software is amortised using the straight-line method over its estimated useful life, normally estimated to be between three and five years.

Impairment tests are performed annually or more frequently if events or circumstances indicate that the asset might be impaired.

Costs associated with maintaining or upgrading computer software programmes are recognised as an expense as incurred.

II.12.c. Other intangible assets

At the time of a business combination, part of the cost might be attributed to one or more intangible assets when these are separable or arise from contractual or other legal rights (such as contractual customer relationships), provided a fair value can be measured reliably.

For each asset, the expected useful life is also assessed. Where this is a finite period, the cost of the asset will be amortised using the straight-line method over that period. The estimated useful life is assessed to be indefinite when, following an analysis of all the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows. In such circumstances, the cost will not be amortised.

The amortisation period and amortisation method for assets with a finite life are reviewed at least at each financial year-end, and changed when necessary.

For assets with an indefinite life, impairment tests are performed annually or more frequently if events or circumstances indicate that the asset might be impaired.

II.13. Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation. Where an item of property, plant and equipment comprises major components having different useful lives, these components are accounted for separately.

Borrowing costs that are directly attributable to the acquisition of an asset are considered as part of the cost of the asset.

Subsequent costs are included in the asset's carrying amount or are recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the group and the cost can be measured reliably. All other costs are charged to the income statement during the financial year in which they are incurred.

Depreciation on property, plant and equipment is determined using the straight-line method to allocate the depreciable amount (difference between the cost and the residual value) over its estimated useful life.

The estimated useful life of property, plant and equipment is as follows:
- buildings (including enhancements): 20 to 40 years;
- leasehold improvements: shorter of economic life and period of lease;
- furniture and fixtures: seven years; and
- IT equipment (data processing and communications): between two and five years.

Land is not depreciated.

II.14. Leases

Contracts to lease assets are classified as finance leases where they transfer substantially all the risks and rewards of ownership of the asset to the customer. Contracts not deemed to be finance leases are treated as operating leases.

Assets acquired under finance leases are included within fixed assets at the fair value of the leased asset or, if lower, the present value of the minimum lease payments, and depreciated over their economic useful lives taking into account anticipated residual values.

Operating lease income and charges are adjusted where relevant by lease incentives and are recognised on a straight-line basis over the life of the lease.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor, or received from the lessee by way of penalty, is recognised as an expense or income in the period in which termination takes place.

II.15. Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents comprise balances with an original maturity of not more than three months, including cash and non-restricted balances with central banks, and loans and advances to banks and other customers.

II.16. Provisions

Provisions are recognised where:
- there is a present obligation arising from a past event;
- there is a probable outflow of resources; and
- the outflow can be estimated reliably.

Provisions are recognised in respect of onerous contracts where the unavoidable costs of the future obligations under the contract exceed the economic benefits expected to be received.

Contingent liabilities are possible obligations whose existence depends on the outcome of one or more uncertain future events not wholly under the control of the group. For those present obligations where the outflows of resources are uncertain, or in the rare cases where these outflows cannot be measured reliably, this will give rise to a contingent liability. Contingent liabilities are not recognised in the financial statements but are disclosed, unless they are remote.

II.17. Employee benefits

II.17.a. Pension obligations

The group operates a number of post-retirement benefit schemes for its employees, including both defined contribution and defined benefit pension plans.

A defined contribution plan is a pension plan under which the group pays fixed contributions into a separate entity and has no legal or constructive obligation to pay further contributions.

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan.

The liability recognised in the balance sheet in respect of defined benefit plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised in equity in the period in which they occur.

Past service costs are recognised immediately in the profit and loss account.

The costs of defined contribution plans are charged to the income statement in the year in which they fall due.

II.17.b. Other post-retirement benefits

Some group companies provide post-retirement healthcare benefits to their retirees. The expected costs of these benefits are accrued over the period of employment using an accounting methodology similar to that for defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity. These obligations are valued annually by independent qualified actuaries.

II.18. Current and deferred income taxes

Current tax payable on profits, based on the applicable tax law in each jurisdiction, is recognised as an expense in the year in which profits arise.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted in each relevant country by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

The principal temporary differences arise from:
- depreciation of tangible fixed assets and amortisation of intangible assets;

- revaluation of certain financial assets and liabilities, including derivative contracts;
- provisions for pensions and other post-retirement benefits;
- tax losses carried forward; and
- in relation to acquisitions, the difference between the fair values of the net assets acquired and their tax base.

Temporary differences on the initial recognition of assets and liabilities other than those acquired in a business combination are not recognised unless the transaction affects accounting or taxable profit.

Deferred tax assets, including those related to income tax losses available for carry forward, are recognised when it is probable that future taxable profit will be available against which the temporary differences can be used.

Deferred income tax is provided on temporary differences arising from investments in subsidiaries and associates, except where:
- the timing of the reversal of the temporary difference is controlled by the group; and
- it is probable that the difference will not reverse in the foreseeable future.

Current tax assets and liabilities are offset when they arise in the same entity and where there is both a legal right of offset and the intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

Deferred tax related to a transaction or event which is charged or credited directly to equity (e.g. fair value re-measurement of available-for-sale investments and cash flow hedges) is also credited or charged directly to equity and is subsequently recognised in the income statement together with the deferred gain or loss.

Deferred tax assets and liabilities are not discounted.

II.19. Dividends

Dividends on ordinary shares are recognised in equity and as a liability in the year in which they are approved by the Company's shareholders.

Dividends for the year that are declared after the balance sheet date are not recognised as a liability and are instead disclosed as subsequent events.

III. Critical accounting estimates and judgements

The Euroclear group makes estimates and assumptions that affect the reported amounts of assets and liabilities. These estimates are considered to be important to understand the group’s financial condition, since they require management to make complex and subjective judgements, some of which may relate to matters that are inherently uncertain. Estimates and judgements are continually evaluated and based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

III.1. Impairment of goodwill and contractual customers’ relationships with an indefinite useful life

The group tests goodwill and contractual customers’ relationships for impairment annually (during the fourth quarter), irrespective of whether there is an indication of impairment. Furthermore, the group remains alert for indicators of impairment throughout the year and conducts a high-level impairment review at each quarter end.

Such impairment reviews are deemed to detect:
- overpayment;
- under-performance compared with expectations; and
- significant changes with an adverse effect on the acquired business. Such changes can stem from, for example, new business parameters (e.g. volatility of stock markets, changes in the volume of securities safekept on behalf of customers, ...) or from changes in market data used to determine the cost of capital of the acquired businesses.

An impairment loss is recognised whenever the recoverable amount of the goodwill is less than its carrying amount (book value). The recoverable amount of an asset is the higher of its net selling price and its value in use, both based on present value calculations.
- Net selling price is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable willing parties, less the cost of disposal.
- Value in use is the amount obtainable from the use of an asset until the end of its useful life and from its subsequent disposal. Value in use is calculated as the present value of estimated future cash flows. The value in use calculation may take into account not only the post-acquisition performance of the acquired entity itself, but also the changes in cash flows in other entities in the group that are positively or negatively affected by the acquisition.

No impairment charge was deemed necessary at the end of 2015 and 2016. See Note XVIII.

Contractual customers' relationships with an indefinite useful life relate to the acquisition of Euroclear Belgium.

III.2. Provisions

A provision is a liability of uncertain timing or amount. At each reporting year, the necessity to record or adjust provisions is considered based on the latest information available.

Onerous lease provisions are recognised when a decision has been taken to vacate premises leased by the Company and when the space is expected to remain empty or to be sub-let at terms and conditions below those in the Euroclear lease. The provision represents the lower of the cost to breach the contract and the cost of fulfilling it, taking into account the expected benefits that might be received under a sub-lease, providing the entity is actively seeking to sub-let the property.

Provisions for onerous contracts are recognised when the Company has a contract that is onerous. The provision represents the best estimate of the unavoidable costs of the obligations under the contract over the economic benefits expected to be received under it.

Human resources-related provisions are recognised when a decision has been made, a formal plan exists and the main features are known by those affected. The provision represents the best estimate of the full cost to be incurred to implement the plan.

Provisions for dilapidation, or end-of-lease obligations, are recorded when Euroclear is contractually bound to incur such costs and a reliable estimate can be made.

Provisions for litigation are recorded when there are strong indications that costs will be incurred to settle the legal cases concerned and a reliable estimate can be made.

III.3. Defined benefit plans

The present value of the defined benefit plan obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of the obligations.

The assumptions used in determining the net cost/(income) for the plans include the discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the plan obligations. In determining the appropriate discount rate, the group considers the interest rates of high-quality corporate bonds (or mortgage backed bonds in Sweden) that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related plan liability.

Other key assumptions for plan obligations are based in part on current market conditions.

The major assumptions used are shown in Note XX.

III.4. Deferred tax assets

Deferred tax assets are recognised to reflect the future tax benefit from unused tax losses or tax credits and other temporary differences. If there is a concern about the relevant entities' capacity to utilise the tax assets within a reasonable (10-year) period, the assets are impaired, even when there remains a possibility to benefit longer term if sufficient taxable profits arise. The 10-year period is considered reasonable in view of the activities of the Euroclear group entities and the sector in which they operate.

III.5.Impairment of available-for-sale equity investments

The group determines that available-for-sale equity investments are impaired when there has been a significant or prolonged decline in the fair value below its cost. This determination of what is significant or prolonged requires judgement. In making this judgement, the group evaluates among other factors, the normal volatility in share price. In addition, impairment may be appropriate when there is evidence of a deterioration in the financial health of the investee, industry and sector performance, changes in technology, and operational and financing cash flows. The group determines that available-for-sale equity investments are impaired when there is a constant decrease of fair value of more than 50% compared with the fair value at inception for a period greater than one year.

Where appropriate, the group has recourse to adequate valuation techniques (e.g. discounted cash flows, market multiples) to estimate the value of non-quoted available-for-sale equity investments, as explained in section IV.

As far as such investments are concerned, no indicator of impairment has been detected. The group, therefore, estimates that their respective values in the accounts of the relevant acquiring company are still justified.

IV. Risk management and the financial risk management environment

This section is unaudited unless specifically stated as audited.

IV.1. Managing business in a risk-controlled environment

IV.1.a. The Enterprise Risk Management Framework

The Risk Management function has developed a comprehensive Enterprise Risk Management (ERM) framework, taking into account relevant market and regulatory standards, to help Euroclear achieve its strategic objectives. Euroclear's (ERM) framework sets the way Euroclear manages its risks:

- Effective risk governance is critical to the overall effectiveness of Euroclear's risk management;
- Underpinning the effectiveness of our risk governance framework is the need for open and transparent identification, analysis, sharing of risk information and management of those risks – including root causes, potential impacts and incidents – from across the organisation;
- In achieving our strategic objectives, the risk vs reward balance is crucial. Risk appetite is used as a guide to help senior management teams understand how much risk the Board of Euroclear are willing to accept in the pursuit of Euroclear's objectives. In contrast, risk capacity is the total risk burden each Euroclear company can bear without entering in recovery or resolution. Euroclear's risk appetite framework facilitates these decisions;
- Euroclear's risk culture refers to, amongst other things, our attitude towards risk and opportunity, our level of risk awareness, how we take decisions and how responsibility and accountability are defined. Risk culture is thus the embedding of risk management in our day-to-day activities;
- Euroclear's ERM framework is the methodology designed by the Risk Management function, approved by the Boards of Euroclear and implemented and operated by Senior Management, that helps the company manage risks in a structured way;
- The three lines of defence model we operate within Euroclear facilitates the effective operation of our ERM framework. Each line plays a distinct role providing senior management teams and the Boards with confidence about Euroclear's likelihood to achieve its key goals through the effective management of risks.

IV.1.b. The three lines of defence

First line of defence: management is responsible for taking acceptable risks, within the Board's risk appetite, to meet Euroclear's strategic objectives. Management uses the ERM framework as support to identify, assess, control and mitigate the risks that it takes and that might impact the achievement of these objectives. Management provides the Boards with:

- information on Euroclear's risk profile and key developing risks;
- assurance and evidence that risk controls are both adequate and effective; and
- opinion on the likelihood that strategic objectives will be achieved.

Second line of defence: the Risk Management function and the Compliance & Ethics division provide robust independent oversight of management's risk taking activities. To achieve this mission, the Risk Management function:

- delivers and maintains a leading ERM framework;
- helps foster a healthy risk culture throughout the organisation; and
- provides the Boards and senior management with high quality, independent risk advice and guidance.

More specifically, the Risk Management function provides robust, independent oversight of management's risk-taking activities through:

- establishing, maintaining, facilitating and assessing the effective operation of Euroclear's ERM framework;
- providing risk and compliance education and training (at all levels) where helpful or necessary;
- constructively challenging management and advising the Boards on the identification, assessment, mitigation and reporting of risks, including compliance risks;
- independently assessing the adequacy and operating effectiveness of key compliance controls;
- providing the Boards with an independent view of Euroclear's
  - risk capacity, appetite (including risk appetite framework) and risk profile;
  - key individuals, aggregate and emerging risks, both at the Group and entity level; and
  - likely achievement of key goals.
- acting as an independent risk and compliance 'sounding Board' (providing advice) for senior management and the Boards; and
- leading and sharing risk thinking within the organisation and wider financial market infrastructure sector.

Compliance defines the framework, monitors, tests, reports and escalates to management on controls relating to laws and regulations and advice on remedial actions. Compliance also provides regular trainings across the organisation to increase awareness of compliance risks and ethical issues.

Other support functions like Finance or HR monitor specific controls and escalate to management in case of control defects.

Third line of defence: Internal Audit provides comprehensive assurance based on the highest level of independence and objectivity within the organisation, in order to support the Boards and Senior Management in reaching their objectives. Internal Audit's scope is unrestricted, and provides assurance on the adequacy and effectiveness of Euroclear's governance, risk management and internal controls.

Management establishes High Level Control Objectives (HLCOs) to mitigate the risks. These HLCOs set the expectation of the level of internal control in each entity and division of the group. Each of the HLCOs has a senior business management owner who is accountable for ensuring that risks are appropriately mitigated.

IV.1.c. Risk appetite framework & control environment

The risks that Euroclear faces in the pursuit of its strategic objectives are reflected in the Risk Universe in line with the risk register (which categorises the principal areas of risk Euroclear faces). Euroclear faces six key risk types: operational risk, credit risk, liquidity risk, market risk, business risk, and strategic risk.

For the management of these risks, the Boards and Senior Management have set limits to the amount of risk they are prepared to accept (Risk Appetite) to achieve Euroclear's strategic objectives.

Based on the business strategy and the defined Risk Appetite, management defines Key Business Objectives. The key risks relating to these business objectives are assessed regularly, hand-in-hand with the related HLCOs and key control objectives – underpinned by control activities and their evidences.

Risk and control monitoring

Management provides its regular self-assessment regarding the likely achievement of their business objectives and the relating risk and control environment via the Positive Assurance Report (PAR). The PAR is a management tool providing view on the likely achievement of the business objectives, and demonstrates the robustness of the risk and control environment of the area. As such, the PAR monitors the risk and control environment and is at the center of the Internal Control Systems (ICS) monitoring.

The first line of defence performs an annual Risk & Control Self-Assessments (RCSAs) facilitated by the Risk Management function. The RCSA is not a stand-alone exercise; it does build on the PAR assessments and feeds into that. These self-assessments and the complementary Horizontal Self-Assessments (HSAs) are key components of the ERM framework. The RCSAs and HSAs aim to achieve the following objectives:

- build an accurate and consistent assessment of ICS, i.e. to have an appropriate understanding of the risk profile of the business comparative to our risk appetite;
- increase risk awareness and promote an ongoing assessment of risks and controls by business managers;
- identify evolving and new risks by bringing together experts and less experienced people;
- obtain quantification of the risks faced by Euroclear at 'risk event level', service level and entity level;
- ensure that individual risks in the ICS are identified proactively and that they are addressed adequately; and
- are a key input in assessing the ICS overall adequacy and effectiveness.

Risk Management is reviewing and challenging where needed and gives its independent view on the effectiveness of the controls to manage current and emerging risks.

The third line (Internal Audit) provides the highest level of independent assurance to senior management teams and Euroclear entity boards on the adequacy and effectiveness of governance, risk management and internal controls.

All (I)CSDs of the Euroclear group have annual ISAE 3402 report audited by external audit firm which provides assurance on the controls in place in the Euroclear entities.

In addition, our (I)CSDs update annually the Disclosure Framework for Securities Settlement Systems, which is one of the requirements for compliance with CPMI-IOSCO's Principles for Financial Market Infrastructures.

Risk reporting

Risk Management in its independent risk oversight role of management's risk taking activity:

- Risk Management regularly consults several tools, such as the Risk Universe, the Risk Tracking Database and the outcome of Risk Assessments to form its independent opinion on the risk profile of the company. Outcome of the risk assessments are reported as relevant to the appropriate governance body of Euroclear (Group Risk Committee, Management Committee, Credit and Asset Liability Committee or Board Risk Committee).
- Risk Management regularly (at least quarterly) reports formally to senior management and the board risk committees on the risk profile of the entity in relation to the risk appetite. In addition, the Chief Risk Officer (CRO) reports his view on the Group Risk Profile, summarising the key risks at Group level, to the Euroclear SA/NV Management Committee and the Euroclear SA/NV Board Risk Committee.
- Risk Management escalates to the appropriate level material risk issues when, in its opinion, either a new risk emerges or mitigating actions for an existing risk have been insufficient in scope and/or time.

IV.2. Operational risk management

All Euroclear entities face operational risks in their daily activities, caused by either inadequate or failed internal processes, human errors, system failures or external events.

In line with Basel recommendations, Euroclear categorises its operational risks and loss events in seven risk event types:

- employment practices and workplace safety;
- clients, products & business practices;
- execution, delivery & process management;
- internal fraud;
- external fraud and cyber;
- business disruption & systems failure;
- damage to or loss of physical (or other) assets.

Euroclear uses Key Risk Indicators (KRIs), Key Performance Indicators (KPIs) and regular self-assessment to effectively monitor operational risk. Risk management also ensures that the first line consistently logs and reports all incidents, with or without financial impact, and escalates them at the appropriate management level as necessary.

Euroclear (anonymously) shares its internal loss data with the Operational Riskdata Exchange Association (ORX) in order to access their database of high quality operational risk loss data. Euroclear uses this data for its capital modelling and to understand and manage operational risk adequately.

Information Security & Business Continuity
A major component of our operational risk management is Information Security (IS) and Business Continuity Management, which are fully integrated in our ERM framework and aligned with recognised international standards.

Euroclear's business continuity arrangements include identification of all critical functions to ensure continuity of required services. To this end, appropriate business continuity plans are prepared. In addition, Euroclear's business continuity programme includes a testing strategy to enable each entity to respond to unforeseen events. Euroclear performs departmental/divisional as well as entity and group wide business continuity plan tests to ensure continued readiness to respond to crisis situation. Euroclear also participates in market wide business continuity tests. For example:

- IT disaster recovery testing: switch between data centres;
- crisis management exercises;
- office recovery testing: switch to a recovery office and dual sites testing;
- testing of agreed arrangements with critical suppliers and external parties covering for example:
  - crisis communication
  - reciprocal plans with other Financial Market Infrastructures (e.g. National Central Banks, other (I)CSDs, Central Counterparts)
- Participation to market wide exercises where and when they are organised;
- Evacuation exercises of the buildings.

In addition, each division/department is responsible for producing, maintaining and implemented its "site-switch" procedure to ensure the continuity of Euroclear Bank's critical functions.

IV.3. Euroclear group financial risk management

The framework put in place at Euroclear ensures that financial risks (i.e. credit, liquidity and market risks) are tightly controlled. The core of this framework is formed by the Corporate Risk Management Board Policy and underlying policy handbooks.

IV.3.1. Credit risk

Credit risk is defined as the risk of loss arising from the default or failure of a participant or counterparty to meet its financial obligations to Euroclear.

Euroclear Bank
Euroclear Bank has not experienced any credit losses in its history, not even during periods of market turmoil. This is largely due to the very short duration of credit exposures. In addition, Euroclear Bank applies very strict collateralisation rules. More than 99% of its credit exposures are collateralised, mostly with very high-quality collateral.

In addition, Euroclear Bank also has treasury exposures resulting from clients' end-of-day cash positions. These balances are usually placed in the market with high-quality counterparties, preferably by using reverse repurchase agreements (reverse repos) or in very high quality securities with short-term maturities. The risks are limited by their short duration, as well as policy limits.

Euroclear CSDs
As their transactions settle in central bank money, the Euroclear CSDs have no direct cash relationship with their clients. Consequently, they cannot extend loans or credit facilities to their customers. The Euroclear CSDs can potentially face a certain level of credit risk arising from the

non-payment of fees by their clients, albeit for limited amounts considering both the frequency of the billing and their relatively broad customer base. Therefore, each CSD of the group is required by its home regulator to hold enough liquidity to cover such risks.

Finally, the Euroclear CSDs are also exposed to the credit risk related to the reinvestment of their cash surplus with their bank counterparties. The credit risk is mitigated through a strict investment policy limiting the allowed counterparties and type of instruments.

IV.3.1.a. Maximum credit exposure

The table below (audited) summarises the maximum exposure to credit risk (net of any impairment losses recognised in accordance with IAS 39), which for the purpose of this annex is defined as the net carrying amount as reported in the financial statements (therefore measured on an end-of-day basis), without taking into account any collateral held or other credit enhancement attached.

(€'000)	Notes	2016	2015
At 31 December			
Financial assets			
- Cash and balances with central banks		5,639,674	3,399,246
- Loans and advances		12,145,763	14,545,568
- Available-for-sale financial assets	XIV	2,840,759	2,440,860
- Financial assets held for trading	XV	40,063	6,897
- Derivatives used for hedging	XVI	568	1,538
Total financial assets		**20,666,827**	**20,394,109**
Securities lending indemnifications	XXIV	**28,298,635**	**18,576,063**
Total		**48,965,462**	**38,970,172**

At 31 December 2016, the secured exposure amounted to €39,288,600,000 (2015: €33,451,118,000), while the unsecured exposure amounted to €9,676,862,000 (2015: €5,502,932,000). Secured exposure includes €10,179,992,000 of reverse repo transactions (2015: €13,913,443,000).

The credit quality of balances with central banks and the portfolio of loans and advances can be assessed by reference to the internal rating system adopted by the group (audited table).

Rating (in %)	2016	2015
At 31 December		
Eaaa	32%	19%
Eaa	28%	25%
Ea	32%	45%
Ebbb+ and Ebbb	7%	10%
Ebbb- and below	1%	1%
Total	**100%**	**100%**

The internal rating 'Eaa' shown above sums up the ratings 'Eaa-', 'Eaa' and 'Eaa+' of Euroclear Bank's internal ratings scale. Accordingly, the internal rating 'Ea' sums up the ratings 'Ea-', 'Ea' and 'Ea+' of the internal ratings scale.

The table below (audited) presents an analysis of the available-for-sale financial assets (excluding equity shares) by rating agency designation based on Standard & Poor's ratings or their equivalent (Moody's P1 includes Standard & Poor's A1+ and A1 for short term investments):

Rating (in %)	2016	2015
At 31 December		
AAA	8%	7%
P1	57%	62%
AA+	4%	10%
AA	19%	21%
AA-	12%	-
Total	**100%**	**100%**

IV.3.1.b. Credit risk mitigation

Euroclear Bank aims at mitigating most of the short-term credit exposure on its clients, preferably by relying on securities or cash collateral held and pledged within the clients' accounts in Euroclear Bank. Frequent monitoring shows that more than 99% of the collateral pledged in the Euroclear System has investment grade quality. As clients' credit facilities are multi-purpose and multi-currency, clients can use the collateral pledged to Euroclear Bank to guarantee all the obligations they have with Euroclear Bank, irrespective of the nature of the exposure and the original currency.

In order to accurately determine the value of the collateral it takes, Euroclear Bank has developed a dynamic internal collateral valuation model taking into account market, credit, country and liquidity risks. Haircuts are computed at least once a day for each security, reflecting the latest market risk factors and conditions. The collateral valuation model is back-tested and stress tested regularly. The results show that the collateral valuation model has provided continually adequate valuations, even during periods of high volatility for the markets.

Euroclear Bank's secured exposure relates to overdrafts or fixed-term advances granted to clients, guarantees issued to securities lenders in the context of the securities lending and borrowing and GC access programmes, and reverse repos.

IV.3.1.c. Concentration risk

Concentration limits are set to ensure that the group does not take too large an exposure on too few clients or counterparties. Under EU and Belgian banking regulations, large individual exposures have to remain below 25% of their own funds (Tier 1 + Tier 2 less deductions).

Geographical concentration of financial assets and liabilities (audited)

(€'000)	Europe	Americas	Rest of the world	Total
At 31 December 2016				
Total financial assets	**18,615,360**	**939,385**	**1,112,081**	**20,666,827**
Total financial liabilities	**8,135,864**	**3,409,518**	**6,572,827**	**18,118,209**
At 31 December 2015				
Total financial assets	**18,794,603**	**246,541**	**1,352,965**	**20,394,109**
Total financial liabilities	**7,103,484**	**3,642,205**	**7,087,217**	**17,832,906**

IV.3.2. Liquidity risk

Liquidity risk is the risk of loss arising from Euroclear being unable to settle a cash or securities obligation when due. Liquidity risks does not imply that Euroclear is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter.

IV.3.2.a. Liquidity risk at Euroclear Bank

Euroclear Bank provides liquidity to offer efficient settlement and custody services. It ensures timely cross-border settlement with domestic markets, supports new issues and custody activities, and enables clients to transfer sales and income proceeds in a timely manner. Euroclear Bank's liquidity risk is largely intra-day and transactional.

Euroclear Bank's overnight settlement process, enabling clients to settle transactions in a wide range of currencies within a single timeframe, efficiently recycles and minimises liquidity needs, as clients only have to fund the resulting net debit position.

Euroclear Bank may end up with residual cash positions at the end of the day. On a daily basis, Euroclear Bank is typically long cash, which it invests mostly on a very short term basis to match the volatility of clients' settlement and money transfer activities.

IV.3.2.b. Liquidity risk appetite

Euroclear Bank's liquidity risk appetite is very low, given the criticality of intra-day liquidity for the efficient delivery of its settlement and custody services. Euroclear Bank has, therefore, adopted a strong risk management framework to anticipate, monitor and manage the intra-day liquidity flows to ensure the quality of its services. Liquidity risk is further mitigated by Euroclear Bank's strict client admission policy and the continuous monitoring of its clients, and by the fact that credit is secured and short-term.

IV.3.2.c. Funding

Euroclear Bank's settlement system allows for an efficient recycling of liquidity. Although Euroclear Bank settles transactions amounting to over €1,700 billion each day (2016 average), it only extends less than 5% of the settled transactions in secured intra-day credit to its clients (thanks to netted back-to-back transactions and to an efficient securities lending and borrowing programme). Since Euroclear Bank's daily payment receipts typically match its payment obligations, additional liquidity is only needed to smoothen or accelerate the payment process and to ensure the timely execution of time critical payments throughout the day.

To support its daily payment activity, Euroclear Bank relies on a large network of highly rated cash correspondents and has a direct access to TARGET2 system for euro payments. In order to raise liquidity, Euroclear Bank can also use its investment book, funded by equity and retained earnings. The investment book must be invested with the objective of capital and liquidity preservation, meaning in euro-denominated sovereign, supranational or agency debt instruments rated AA- or above and ESCB-eligible. Furthermore, Euroclear Bank has a broad access to the inter-bank market and has contingency liquidity sources in place for the major currencies.

The adequacy of Euroclear Bank's liquidity capacity is assessed and approved quarterly by the Credit and Assets and Liabilities Committee (CALCO). It also monitors, on a monthly basis, the trend of liquidity risks that Euroclear Bank faces through liquidity key risk indicators, allowing for instance to identify changes in clients' cash management behaviour that may affect Euroclear Bank's liquidity.

IV.3.2.d. Liquidity stress testing

Euroclear Bank regularly performs idiosyncratic and market-wide liquidity stress tests to assess potential liquidity strains and to ensure adequate access to enough liquidity sources to fund any shortfalls. For the group CSDs and Euroclear SA/NV, liquidity stress testing is also performed to ensure, where applicable, compliance with local regulatory liquidity obligations as well as adequate funding.
Example of liquidity stress tests are:

- default of the top two clients (at family level);

- operational failure of a key cash correspondent;
- a sudden drop of participant balances;
- cut of cash correspondent lines;
- default of participants and knock on effects.

In addition, Euroclear Bank has to comply with regulatory liquidity stress tests such as the Liquidity Coverage Ratio (LCR). The aim of the LCR is that credit institutions hold sufficient liquid assets to withstand the excess of liquidity outflows over inflows that are expected to accumulate over a 30-day stressed period.. The National Bank of Belgium is requiring full LCR compliance (100%) as from 1 October 2015. Euroclear complies with this requirement.

IV.3.2.e. Liquidity contingency plan

Euroclear Bank maintains an appropriate liquidity contingency plan to ensure the business continuity of its core settlement and custody services. The plan documents the relevant operational procedures and ensures access to (contingency) liquidity in the event of an operational or financial crisis. On top of its own capital and access to regular market funding, Euroclear Bank has negotiated committed liquidity lines and can call upon a €1,150 million syndicated back-stop facility and a €180 million bilateral standby facility. The contingency plan and the availability of contingency liquidity are regularly tested and subject to stress testing. Finally, to cover its short-term liquidity needs resulting from the default of a client, Euroclear Bank has agreements in place allowing Euroclear Bank to appropriate the client pledged collateral (immediate transfer of ownership). In order to generate liquidity, this appropriated collateral is then re-used with liquidity providers or pledged with the NBB, pending full liquidation.

IV.3.2.f. Liquidity risks in Euroclear SA/NV and the CSDs

Investments of cash belonging to Euroclear SA/NV and the CSDs aim at minimising liquidity risk for these entities:
- stable cash positions linked to regulatory liquidity requirements, for entities where such requirements apply, should be invested on a rollover basis; and
- surplus cash investments, which includes the working cash needs of these entities, should always be cash flow driven, which means that the amount and period of the investments should take into account the evolution of working cash needs and capital expenditure.

The type of instrument to be used is limited to overnight or term deposits, the duration of which should not exceed three years.

The table below (audited) shows the consolidated financial liabilities analysed by remaining contractual maturity at the balance sheet date. The amounts disclosed in the table are the contractual undiscounted cash flows at spot rate and the book value of the derivatives.

(€'000)	Notes	Repayable on demand or within one week	Other amounts maturing within 3 months	Maturity between 3 and 6 months	Maturity between 6 months and 1 year	Maturity within 1 to 5 years	Maturity after 5 years	Undiscounted contractual cash flows - Total	Book value
At 31 December 2016									
Financial liabilities									
- Deposits from central banks		1,165,106	-	-	-	-	-	**1,165,106**	**1,165,106**
- Deposits from banks and customers		16,433,431	275,851	10,479	9,480	37,946	246,932	**17,014,119**	**16,919,785**
- Financial liabilities held for trading	XV	24,765	7,527	-	-	-	-	**32,292**	**32,292**
- Derivatives used for hedging	XVI	-	248	258	521	-	-	**1,026**	**1,026**
Total financial liabilities		**17,623,301**	**283,626**	**10,736**	**10,001**	**37,946**	**246,932**	**18,212,543**	**18,118,209**

(€'000)	Repayable on demand or within one week	Other amounts maturing within 3 months	Maturity between 3 and 6 months	Maturity between 6 months and 1 year	Maturity between 1 and 5 years	Maturity after 5 years	Undiscounted contractual cash flows - Total	Book value
At 31 December 2015								
Financial liabilities								
- Deposits from central banks	1,193,267	-	-	-	-	-	**1,193,267**	**1,193,267**
- Deposits from banks and customers	15,863,898	745,877	5,967	19,420	-	-	**16,635,162**	**16,635,106**
- Financial liabilities held for trading XV	4,533	-	-	-	-	-	**4,533**	**4,533**
Total financial liabilities	**17,061,698**	**745,877**	**5,967**	**19,420**	**-**	**-**	**17,832,962**	**17,832,906**

In the table above, the deposits from banks and customers include an amount of 4,203,193,000 €-equivalent at 31 December 2016 (2015: 3,726,977,000 €-equivalent) of deposits blocked following applicable international sanctions measures.

IV.3.2.g. Fair value of financial instruments

Financial instruments traded in active markets
A market is regarded as active if quoted prices are readily and regularly available (exchange, dealer, broker, pricing service or regulatory agency) and if these prices represent actual and regularly occurring market transactions on an arm's length basis. These instruments are included in level 1.

The fair value of such instruments is based on quoted market prices at the balance sheet date.

ICE equity shares which were reclassified into level 1 have been disposed of during the year (see Note VIII)..

Financial instruments not traded in active markets
The fair value of these instruments is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available. If all significant inputs that are required to fair value an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

Specific valuation techniques used to value financial instruments include:
- quoted market prices or dealer quotes for similar instruments;
- the present value of the estimated future cash flows based on observable yield curves, for the fair value of interest rate swaps;
- the forward exchange rates at the balance sheet date, with the resulting value discounted back to present value, for the fair value of forward foreign exchange contracts;
- other techniques, such as discounted cash flow analysis, used to determine the fair value of remaining financial instruments.

The table below (audited) shows the three-level hierarchy of the financial instruments measured at fair value:

Level 1. Quoted prices in active markets for the same instruments;
Level 2. Quoted prices in active markets for similar assets or liabilities, or other valuation techniques for which all significant inputs are based on observable market data; and
Level 3. Valuation techniques for which significant input is not based on observable market data.

(€'000)	Notes	Level 1	Level 2	Level 3	Total
At 31 December 2016					
Financial assets					
Available-for-sale financial assets	XIV				
- Equity shares		220,864	-	14,568	**235,432**
- Debt instruments		2,605,327	-	-	**2,605,327**
Financial assets held for trading	XV				
- Forward foreign exchange		-	40,063	-	**40,063**
Derivatives used for hedging	XVI				
- Forward foreign exchange		-	568	-	**568**
Total financial assets		**2,826,191**	**40,631**	**14,568**	**2,881,390**
Financial liabilities					
Financial liabilities held for trading	XV				
- Forward foreign exchange		-	32,292	-	**32,292**
Derivatives used for hedging	XVI				
- Forward foreign exchange		-	1,026	-	**1,026**
Total financial liabilities		**-**	**33,318**	**-**	**33,318**

(€'000)	Notes	Level 1	Level 2	Level 3	Total
At 31 December 2015					
Financial assets					
Available-for-sale financial assets	XIV				
- Equity shares		267,487	-	14,435	**281,922**
- Debt instruments		2,158,938	-	-	**2,158,938**
Financial assets held for trading	XV				
- Forward foreign exchange		-	6,897	-	**6,897**
Derivatives used for hedging	XVI				
- Forward foreign exchange		-	1,538	-	**1,538**
Total financial assets		**2,426,425**	**8,435**	**14,435**	**2,449,295**
Financial liabilities					
Financial liabilities held for trading	XV				
- Forward foreign exchange		-	4,533	-	**4,533**
Total financial liabilities		**-**	**4,533**	**-**	**4,533**

Financial instruments classified in level 3 relate solely to minority long-term participating interests of Euroclear Bank:

- SWIFT equity shares are re-measured each time there is a re-balancing exercise according to SWIFT's Articles of Association (i.e. every three years), at that time an indication about equity share value is provided.
- Monte Titoli equity shares have no quotation nor price indication. The valuation is based on market multiples. More specifically, the multiple used is the median P/E of a peer group (companies in the same industry enjoying strong ratings) for a three-year period, to smoothen somewhat market volatility in our assessment.
- Acadiasoft equity shares bought in 2015 have no quotation nor price indication. The actual valuation is the acquisition cost.

The table below (audited) shows the reconciliation of the level 3 fair value measurements:

(€'000)	Notes	At 31 December 2015	Transfer in/(out) of level 3	Fair value adjustment released in profit or loss	Fair value adjustment recognised in equity	(Disposals)/ acquisitions	At 31 December 2016
Financial assets							
Available-for-sale financial assets	XIV						
- Equity shares		14,435	-	-	133	-	**14,568**
Total financial assets		**14,435**	**-**	**-**	**133**	**-**	**14,568**

(€'000)	Notes	At 31 décembre 2014	Transfer in/(out) of level 3	Fair value adjustment released in profit or loss	Fair value adjustment recognised in equity	(Disposals)/ acquisitions	At 31 December 2015
Financial assets							
Available-for-sale financial assets	XIV						
- Equity shares		9,782	-	(21)	110	4,564	**14,435**
Total financial assets		**9,782**	**-**	**(21)**	**110**	**4,564**	**14,435**

IV.3.3. Market risk

Market risk is the risk of losses in (on or off balance-sheet) positions arising from adverse movements in market prices. Market risk arises from possible changes in foreign exchange rates, interest rates, equity or commodity prices.

IV.3.3.a. Market risk in Euroclear

Euroclear Bank

The majority of market risk in the group is concentrated at Euroclear Bank. As part of the Market Risk Policy Handbook, an adequate risk framework has been put in place to measure, monitor and control the interest rate and foreign exchange risk supported by Euroclear Bank. Value-at-Risk (VaR) methodologies are used to measure interest rate and currency risk. The Management Committee of Euroclear Bank sets VaR limits for all currencies combined, which are monitored daily.

By policy, Euroclear Bank's core equity (shareholders' equity plus retained earnings) is invested in debt instruments rated AA- or higher. The duration of these assets is limited to five years and is currently around one year.

Euroclear SA/NV and the Euroclear CSDs

Interest rate risk exists only to a limited extent in the CSDs and in Euroclear SA/NV. Indeed, the CSDs do not operate commercial cash accounts but invest their cash positions in accordance with regulatory liquidity requirements. The duration of the investments cannot exceed three years, and the types of instruments to be used are limited to straight overnight or term deposits.

Foreign exchange risk is also very limited in the CSDs and in Euroclear SA/NV. To avoid the potential foreign exchange risk that could arise from the investment of their surplus cash, these investments can only be made in their local currency, meaning in EUR for entities whose functional currency is EUR, in GBP for the entities located in the United Kingdom, and in SEK for the Swedish entities. The most significant source of foreign exchange risk stems from the potential change in net asset values of Euroclear SA/NV's non-euro shareholdings (for example Euroclear UK & Ireland and Euroclear Sweden).

<u>IV.3.3.a.1. Interest rate risk</u>

Euroclear typically has net long cash positions and its earnings therefore are sensitive to future changes in interest rates.

The table below shows the interest rate sensitivity of Euroclear's Banking Book positions. The figures relate to Euroclear SA/NV consolidated, as communicated to the National Bank of Belgium in the framework of standardised reporting under Pillar 2 of Basel. The figures for Euroclear plc are not expected to diverge materially from the content of this table. Assets and liabilities held in the Banking Book are predominantly denominated in euro, and they are expressed at market value for the purpose of this disclosure. The economic value of the Banking Book is computed by discounting the future cash flows for assets and liabilities present in this book.

The sensitivity of the economic value of the Banking Book to interest rate shocks is presented in the first column of the table below. The 10-year contingent convertible loan amounting to €200,000,000 granted by Euroclear Investments SA to Euroclear Bank to reinforce its capital base in a recoverable situation, in the context of the Recovery and Resolution plan, is included in the interest rate risk of the Banking Book 2016 economic value calculation. There is currently a maturity mismatch between the 10-year loan and the cash investment.

The remainder of the table illustrates to which extent the net interest income of Euroclear Bank is sensitive to interest rate movements, compared to the amount earned in 2016. For the purpose of this disclosure, we aggregate the future earnings in euro, however, for the interest rate sensitivity we distinguish between sterling, US dollars and euros (all other currencies are converted and included in euros). The 2015 table is however limited to Euroclear material currencies (sterling, US dollars, euros, Australian dollars and Russian rubles), this difference results from a change in methodology requirement from the National Bank of Belgium applicable as from 2016.

(€'000)	Economic value of banking book	Interest result Effective 2016	Income sensitivity Interest result Expected 2017
increase/(decrease) of interest rate, in basis points			
300	1,775,220		451,605
200	1,772,062		337,037
100	1,767,231		221,061
-	1,760,522	123,059	103,638
(100)	1,751,705		50,571
(200)	1,740,523		12,979
(300)	1,726,686		3,860

(€'000)	Economic value of banking book	Interest result Effective 2015	Income sensitivity Interest result Expected 2016
increase/(decrease) of interest rate, in basis points			
300	1,718,238		379,653
200	1,735,908		282,707
100	1,753,823		184,554
-	1,771,990	71,023	98,866
(100)	1,790,416		49,577
(200)	1,809,108		34,346
(300)	1,828,075		32,165

The table below (audited) reflects the interest rate risk profile of assets and liabilities at 31 December, based on the earlier of maturity date and interest rate resetting date.

(€'000)	Repayable on demand or within one week	Other amounts maturing within 3 months	Maturity between 3 and 6 months	Maturity between 6 months and 1 year	Maturity between 1 and 5 years	Maturity after 5 years	Non-interest bearing	Total
At 31 December 2016								
Assets								
- Cash and balances with central banks	5,639,464	-	-	-	-	-	210	5,639,674
- Loans and advances	9,659,438	1,017,342	1,424,021	7,840	26,310	-	10,813	12,145,764
- Available-for-sale financial assets	-	1,429,198	453,444	267,292	449,664	-	241,161	2,840,759
- Financial assets held for trading	1,931	37,370	762	-	-	-	-	40,063
- Derivatives used for hedging	-	136	141	290	-	-	-	568
- Other assets	-	-	-	-	-	-	1,595,424	1,595,424
Total assets	**15,300,833**	**2,484,046**	**1,878,368**	**275,422**	**475,974**	**-**	**1,847,608**	**22,262,251**
Liabilities								
- Deposits from central banks	1,165,106	-	-	-	-	-	-	1,165,106
- Deposits from banks and customers	16,433,089	276,466	10,500	-	-	198,752	978	16,919,785
- Financial liabilities held for trading	24,765	7,527	-	-	-	-	-	32,292
- Derivatives used for hedging	-	248	258	521	-	-	-	1,026
- Other liabilities	-	-	-	-	-	-	789,576	789,577
Shareholders' equity	-	-	-	-	-	-	3,354,465	3,354,465
Total liabilities and shareholders' equity	**17,622,960**	**284,241**	**10,758**	**521**	**-**	**198,752**	**4,145,019**	**22,262,251**
Total interest sensitivity gap	(2,322,127)	2,199,806	1,867,611	274,901	475,974	(198,752)	(2,297,411)	-
Cumulative gap	**(2,322,127)**	**(122,322)**	**1,745,289**	**2,020,190**	**2,496,164**	**2,297,412**	**-**	**-**

(€'000)	Repayable on demand or within one week	Other amounts maturing within 3 months	Maturity between 3 and 6 months	Maturity between 6 months and 1 year	Maturity between 1 and 5 years	Maturity after 5 years	Non-interest bearing	Total
At 31 December 2015								
Assets								
- Cash and balances with central banks	3,398,943	-	-	-	-	-	303	3,399,246
- Loans and advances	10,333,972	1,535,902	2,489,458	88,500	76,837	10,000	10,899	14,545,568
- Available-for-sale financial assets	395,017	625,147	414,174	212,991	505,009	-	288,522	2,440,860
- Financial assets held for trading	6,864	33	-	-	-	-	-	6,897
- Derivatives used for hedging	-	399	389	750	-	-	-	1,538
- Other assets	-	-	-	-	-	-	1,487,845	1,487,845
Total assets	**14,134,796**	**2,161,481**	**2,904,021**	**302,241**	**581,846**	**10,000**	**1,787,569**	**21,881,954**
Liabilities								
- Deposits from central banks	1,193,265	-	-	-	-	-	2	1,193,267
- Deposits from banks and customers	16,404,782	214,294	15,500	-	-	-	530	16,635,106
- Financial liabilities held for trading	4,533	-	-	-	-	-	-	4,533
- Other liabilities	-	-	-	-	-	-	674,751	674,751
Shareholders' equity	-	-	-	-	-	-	3,374,297	3,374,297
Total liabilities and shareholders' equity	**17,602,580**	**214,294**	**15,500**	**-**	**-**	**-**	**4,049,580**	**21,881,954**
Total interest sensitivity gap	(3,467,784)	1,947,187	2,888,521	302,241	581,846	10,000	(2,262,011)	-
Cumulative gap	**(3,467,784)**	**(1,520,597)**	**1,367,924**	**1,670,165**	**2,252,011**	**2,262,011**	**-**	**-**

Interest sensitivity gap

A negative interest rate sensitivity gap exists when more liabilities than assets re-price or mature during a given period. A negative gap position tends to benefit net interest income in a declining interest rate environment and vice versa.

Key components

The following table (audited) analyses the nature of cash and balances with central banks:

(€'000)	2016	2015
At 31 December		
Cash in hand	27	34
Loans and advances	5,639,647	3,399,187
Monetary reserve	-	25
Total cash and balances with central banks	**5,639,674**	**3,399,246**

Euroclear Bank and other group entities had deposited €5,639,278,000 (2015: €3,398,842,000) of surplus funds with central banks. Amongst other reasons Euroclear Bank, like other banks, is required to comply with average monetary reserve requirements determined by the European Central Bank (ECB). Throughout each period set by the ECB, Euroclear Bank deposits varying amounts in its monetary reserve account at the National Bank of Belgium in order to meet the average requirement for that period.

The following table (audited) analyses the nature of loans and advances:

(€'000)	2016	2015
Surplus funds	11,337,638	13,577,700
Loans and advances	808,125	967,868
Total	**12,145,763**	**14,545,568**

The fair value of the loans and advances with an initial maturity greater than one year at 31 December 2016 was €58,642,000 (2015: €241,471,000)

The following table (audited) analyses the nature of deposits from banks and clients:

(€'000)	2016	2015
Deposits	15,861,820	15,776,019
Borrowings	1,057,965	859,087
of which long term funding	199,090	-
Total	**16,919,785**	**16,635,106**

On 16 December 2016, a 10-year contingent convertible loan amounting to €200,000,000 (corresponding to one third of the proceeds of the senior unsecured debt instrument issued by Euroclear Investments SA) was granted by Euroclear Investments SA to Euroclear Bank. This loan (principal amount of €198,755,000, net of €1,245,000 of issue costs) bears interest from and including 16 December 2016 to (but excluding) the interest payment date falling on 16 December 2026 at the rate of 4.74% per annum. This internal convertible senior loan is intended to strengthen its recovery profile of the Bank.

The fair value of the long term debt at 31 December 2016 was €280,329,000.

There are no deposits with an initial maturity greater than one year at 31 December 2016.

The following table (audited) analyses the nature of deposits from central banks:

(€'000)	2016	2015
Deposits	1,165,106	1,185,378
Borrowings	-	7,889
Total	**1,165,106**	**1,193,267**

IV.3.3.a.2. Foreign exchange risk

The group's entities have the euro as their functional currency, with the exception of subsidiaries and joint venture located in the United Kingdom or Sweden.

The group's structural currency exposures (audited) were as follows:

(€'000)	Net investments in non-euro operations	Currency hedges other than borrowings	Remaining structural currency exposures
Functional currency of the operation involved			
At 31 December 2016			
- US dollar	10,886	-	10,886
- Pound sterling	133,335	-	133,335
- Swedish krona	51,648	-	51,648
At 31 December 2015			
- US dollar	8,857	-	8,857
- Pound sterling	117,135	-	117,135
- Swedish krona	55,637	-	55,637

The table below (audited) summarises the group's exposure to foreign currency exchange rate risk. Included in the table are the group's assets and liabilities at carrying amounts, categorised by currency.

Concentration of assets and liabilities per currency (€'000)	Euro	US dollar	Japanese yen	Pound sterling	Other	Total
At 31 December 2016						
Assets						
- Cash and balances with central banks	5,637,102	62	8	11	2,491	5,639,674
- Loans and advances	2,469,729	7,079,335	398,196	870,113	1,328,390	12,145,763
- Available-for-sale financial assets	2,840,757	2	-	-	-	2,840,759
- Financial assets held for trading	40,063	-	-	-	-	40,063
- Derivatives used for hedging	568	-	-	-	-	568
- Current income tax assets	11,515	-	-	270	-	11,785
- Deferred income tax assets	151,485	-	-	726	1,561	153,772
- Other assets	62,432	25,579	620	26,161	49,636	164,428
- Pre-payments and accrued income	125,769	5,532	2	14,698	1,088	147,089
- Pension asset	540	-	-	-	-	540
- Investments in associates and joint venture	17,273	-	-	-	-	17,273
- Property, plant and equipment	83,991	-	-	4,288	2,213	90,492
- Goodwill and intangible assets	815,530	-	-	16,365	178,150	1,010,045
Total assets	**12,256,754**	**7,110,510**	**398,826**	**932,632**	**1,563,529**	**22,262,251**
Liabilities						
- Deposits from central banks	322,929	608,853	4,325	40,135	188,864	1,165,106
- Deposits from banks and customers	5,127,951	8,052,709	601,216	1,112,949	2,024,960	16,919,785
- Financial liabilities held for trading	32,292	-	-	-	-	32,292
- Derivatives used for hedging	1,026	-	-	-	-	1,026
- Other liabilities	52,734	79,205	12,366	74,327	66,460	285,092
- Accruals and deferred income	195,120	5,943	116	16,341	11,364	228,884
- Current income tax liabilities	92,614	-	-	5,728	2,678	101,020
- Deferred income tax liabilities	-	-	-	-	2,938	2,938
- Provisions for liabilities and charges	157,427	-	-	2,166	12,050	171,643
Shareholders' equity	3,247,703	8	-	80,428	26,327	3,354,465
Total liabilities and shareholders' equity	**9,229,796**	**8,746,718**	**618,023**	**1,332,074**	**2,335,641**	**22,262,251**
Net balance sheet position	**3,026,958**	**(1,636,208)**	**(219,197)**	**(399,442)**	**(772,112)**	**-**

The net non-euro balance sheet positions mainly reflect a combination of outstanding currency swaps and the net assets of subsidiaries and branches located in the United Kingdom and Sweden.

Concentration of assets and liabilities per currency

(€'000)	Euro	US dollar	Japanese yen	Pound sterling	Other	Total
At 31 December 2015						
Assets						
- Cash and balances with central banks	3,388,259	27	-	17	10,943	3,399,246
- Loans and advances	2,738,500	8,267,749	436,041	1,485,781	1,617,497	14,545,568
- Available-for-sale financial assets	2,440,857	2	-	-	1	2,440,860
- Financial assets held for trading	6,898	-	-	-	-	6,898
- Derivatives used for hedging	1,538	-	-	-	-	1,538
- Current income tax assets	12,950	-	-	306	423	13,679
- Deferred income tax assets	130,284	-	-	319	1,190	131,793
- Other assets	66,017	42,312	1,365	4,443	11,405	125,542
- Pre-payments and accrued income	107,146	7,600	27	13,832	962	129,567
- Pension asset	533	-	-	-	-	533
- Investments in associates and joint venture	-	8,857	-	-	-	8,857
- Property, plant and equipment	93,610	-	-	5,782	2,217	101,609
- Goodwill and intangible assets	778,395	-	-	19,051	178,818	976,264
Total assets	**9,764,987**	**8,326,547**	**437,433**	**1,529,531**	**1,823,456**	**21,881,954**
Liabilities						
- Deposits from central banks	687,659	129,582	90,512	38,387	247,127	1,193,267
- Deposits from banks and customers	4,860,896	8,179,174	738,535	1,425,217	1,431,284	16,635,106
- Financial liabilities held for trading	4,533	-	-	-	-	4,533
- Other liabilities	99,855	143,948	1,660	9,076	36,157	290,696
- Accruals and deferred income	184,431	5,311	95	14,156	10,880	214,873
- Current income tax liabilities	64,382	-	-	5,725	2,543	72,650
- Deferred income tax liabilities	-	-	-	-	3,760	3,760
- Provisions for liabilities and charges	8,039	-	-	1,925	3,219	13,183
- Pension deficit	75,904	-	-	-	3,685	79,589
Shareholders' equity	3,284,353	13	-	68,312	21,619	3,374,297
Total liabilities and shareholders' equity	**9,270,052**	**8,458,028**	**830,802**	**1,562,798**	**1,760,274**	**21,881,954**
Net balance sheet position	**494,935**	**(131,481)**	**(393,369)**	**(33,267)**	**63,182**	**-**

IV.3.3.b. Market risk appetite for Euroclear Bank

Market transactions are carried out at the discretion of Euroclear Bank, which accepts market risk only within its low risk appetite. Euroclear Bank complies with internal market limits, such as Value-at-Risk (VaR).

Euroclear Bank adheres to the following principles relating to the management of market risk. Euroclear Bank does not engage in any activity that is not considered as part of its normal business or a consequence of its clients' activity, and as such will not engage in trading (even if, under IFRS, certain transactions in derivatives do not qualify as hedges and are therefore recognised under trading activities). The activities and instruments in which Euroclear Bank can engage must be in line with its low-risk profile. Euroclear Bank is not significantly exposed to equity risk or commodity risk. A prudent investment strategy is applied in order to preserve the core equity of Euroclear Bank. In particular, the assets of the investment book can only be invested in highly rated and liquid debt instruments (with the exception of intra-company loans) and an appropriate hedging strategy may be applied so as to protect future earnings against adverse market conditions.

IV.3.3.c. Market risk mitigation (hedging)

Euroclear Bank has engaged in a series of market derivatives in order to hedge the forex risk exposure resulting from future income streams, with the aim of ensuring that the financial results are not adversely affected by market evolutions ('predictability of future revenues'). Such transactions are classified as cash flow hedges.

It is compliant with market expectations that Euroclear Bank conducts its business prudently, as a single purpose bank.

IV.3.3.d. Market risk measurement

The market risk relative to the management of the available for sale portfolio is measured using a VaR methodology. The VaR for a portfolio is the maximum loss over a determined time horizon at a given confidence level (99%). The VaR model assumes a holding period, until positions can be closed, of one day. The market parameters are derived from the volatility and correlation observed from historical daily changes. Euroclear Bank has to comply with a global VaR limit, as well as VaR limits by book. The market risk exposure that Euroclear Bank takes is segregated in the following books: Investment Book (all securities purchased by Euroclear Bank with the proceeds of its own equity); Treasury Book (assets, liabilities and commitments resulting from the activity of Euroclear Bank Clients); and Hedging Book (market transactions that are conducted to manage the risk exposure resulting from future income streams).
The VaR model is back tested on a regular basis.

Given its low market risk appetite and the fact that Euroclear Bank does not engage in trading activities, the VaR figures are low.

(€'000)	2016 average	2016 min	2016 max	2015 average	2015 min	2015 max
Investment book IR risk	476	203	2,529	372	105	1,183
Treasury book IR risk	26	5	118	26	5	125
Hedging book	445	48	1,786	678	117	1,588
Aggregate VaR (Hedging & Investment) book	662	225	2,537	796	181	1,575

IV.4. Capital management

IV.4.a. Capital measurement and allocation

The internal view on Euroclear Bank's capital needs is based on economic capital models, which estimate the amount of capital that Euroclear needs to have in order to protect itself from unexpected losses resulting from the risks it faces in its various activities. This view is complemented by what-if loss scenarios. These models and stress scenarios are continuously kept up-to-date and regularly validated by an independent party. Euroclear Bank is therefore confident that the resulting capital requirements are adequate to support the risks that it faces. The capital requirement model covers operational and credit risks. In addition, Euroclear Bank maintains models that estimate the uncertainty on the profit and loss over a one year horizon due to movements in market risk and business risk factors. This conservative approach to capital, combined with Euroclear's strong risk management and effective controls, has helped Euroclear Bank retain high credit ratings in times of market stress. Euroclear Bank is assigned a AA+ credit rating by Fitch Ratings and a AA credit rating by Standard & Poor's (S&P).

The National Bank of Belgium (NBB) is the main supervisor of Euroclear Bank, the lead regulator for Euroclear SA/NV and, for consolidated capital adequacy purposes only, Euroclear Plc. In addition, individual Euroclear CSDs are regulated by their own local supervisors, which set and monitor compliance with their capital adequacy and liquidity requirements. All Euroclear CSDs and Euroclear Bank will be subject as of 2017 to the capital requirements stipulated under CSDR.

The Capital Requirement Regulation (CRR) requires Euroclear Bank, Euroclear Bank consolidated, Euroclear SA consolidated and Euroclear plc consolidated entities, to maintain at all times:
- a ratio of total capital to risk-weighted assets that cannot fall under a threshold of 8%;
- a ratio of Tier 1 capital to risk-weighted assets that must exceed a threshold of 6%;
- a ratio of common equity Tier1 capital exceeding 4.5%; and
- a capital conservation buffer of 2.5% in common equity (not applicable to Euroclear Plc consolidated).

Euroclear Bank and Euroclear SA/NV have, together with seven other banks or banking groups in Belgium, been identified in 2015 by the NBB as domestically systemically important institutions (D-SII) under Belgian banking law and CRD IV. The NBB applies therefore as of 2016, a common equity Tier 1 capital ratio surcharge of 0.75% to Euroclear Bank standalone, Euroclear Bank and Euroclear SA consolidated, in three tranches of 0.25%.

Euroclear determines risk-weighted assets for credit, operational risk and market risk.

For credit risk, Euroclear uses the Foundation Internal Ratings Based Approach (FIRBA). Risk-weighted assets take into consideration balance sheet assets and off-balance-sheet exposures that may give rise to credit risk, as calculated for both Euroclear Bank and the group on a consolidated basis. Collateral and other eligible guarantees are taken into account appropriately.

With respect to operational risk, Euroclear has received approval to use the Advanced Measurement Approach (AMA) for the calculation of Pillar 1 capital requirements since Q1 2008. Euroclear uses a hybrid approach at all consolidated levels above Euroclear Bank, by combining the AMA for Euroclear Bank with a Standardised or Basic Indicator Approach for the other group's entities.

As Euroclear Bank is a limited purpose bank and does not have a trading book, the market risk that Euroclear Bank incurs is very limited. For market risk, Euroclear uses the Standardised Approach to cover the Foreign Exchange risk.

In addition to the capital ratios, Euroclear Bank will have to comply with the leverage ratio as of 2018. Current requirement is 3%. Euroclear's current levels of the leverage ratio are already well above this regulatory requirement and are disclosed in the pillar3 publication.

The table below sets out the group's Tier 1 and total capital, which both comfortably exceed the regulatory requirements.
.

IV.4.b. Regulatory capital position (audited)

(€'000)	2016	2015
Risk-weighted assets [1]	**6,534,231**	**5,764,448**
Capital requirement	**522,738**	**461,156**
- Credit risk	163,198	143,136
- Market risk	28,126	26,103
- Operational risk	331,414	291,917
Capital base [2]	**2,335,606**	**2,259,947**
- Tier 1	2,335,606	2,259,947
- Tier 2	-	-
Solvency ratio		
- Tier 1	35.7%	39.2%
- Total	35.7%	39.2%

1 Risk-weighted assets (unaudites) represent the total capital requirement multiplied by a factor of 12.5. This means that the risk-weighted assets do not only relate to credit and market risk, but also comprise the gross-up of the capital requirements related to operational risks. For Euroclear, the latter are the main source of capital consumption.
2 Capital base is highly comparable to the shareholders' equity presented in the Statement of financial positions. Differences are due to deductions required by CRD IV regulation, mainly goodwill and intangible assets, current year proposed dividend, limits on investments in financial sector entities, cash-flow hedging reserve and provision shortfall for expected losses.

V. Segment analysis

The Euroclear SA/NV Management Committee receives internal reports for Euroclear Bank, Euroclear SA/NV, Euroclear UK & Ireland, the ESES CSDs and the Nordics.

The reportable business segments are as follows:
- Euroclear Bank (including its Hong Kong branch and its Polish branch) is an International Central Securities Depository (ICSD);
- Euroclear SA/NV (including its branches in Amsterdam, London and Paris) is the provider of software development and non-operational support services to the (I)CSDs;
- Euroclear UK & Ireland is the Central Securities Depository (CSD) subsidiary located in the United Kingdom. This entity also runs an investment fund order routing business;
- the ESES segment includes the group's CSD subsidiaries located in Belgium, France and the Netherlands; and
- the Nordics segment includes two companies: Euroclear Sweden (CSD in Sweden) and Euroclear Finland (CSD in Finland).

Information reported within 'Other' relates to Euroclear Market Solutions Limited (acquired from Euroclear Investments SA in November 2016), to a Special Purpose Vehicle (SPV) established in connection with the issuance of subordinated debt qualifying as capital for Euroclear Bank (liquidated in December 2015), and to a property development company whose property is leased almost entirely to Euroclear SA/NV. None of these qualified as a reportable segment in 2016 or 2015.

The risks and returns associated with Euroclear Bank's ICSD services do not vary geographically and, accordingly, is considered as one geographical segment. The activities of all other segments are within Europe.

No single customer generated 10% or more of the group's revenues.

Transactions between the companies are on normal commercial terms and conditions. Recharges of software development costs and support services are based on formal agreements between the entities concerned.

Segment assets and liabilities comprise all third-party assets and liabilities.

(€'000)	Notes	2016 Euroclear Bank	Euroclear SA/NV	Euroclear UK & Ireland	ESES CSDs	Nordics	Other	Eliminations	Group
Net interest income	VI	122,614	341	431	412	(458)	(281)	-	123,059
Net fee and commission income	VII	590,599	(10)	129,208	170,618	94,284	(5)	(29)	984,665
Intra-group recharges		1,010	505,856	15	391	475	79	(505,302)	2,524
Other income		42,400	87,351	134	3,607	235	7,450	(87,503)	53,674
Operating income		756,623	593,538	129,788	175,028	94,536	7,243	(592,834)	1,163,922
Staff costs	X	(124,312)	(254,894)	(9,007)	(19,139)	(18,208)	(68)	-	(425,628)
Other direct costs	X	(159,971)	(250,951)	(5,575)	(10,054)	(20,717)	(3,446)	10,130	(440,584)
Depreciation and amortisation	XVII, XVIII	(1,953)	(25,334)	(49)	(803)	(2,809)	(1,531)	-	(32,479)
Royalty fees		(27,275)	-	(492)	(621)	(333)	-	1,446	(27,275)
Group non-operational and Administrative support services		(307,674)	(1,447)	(54,601)	(124,169)	(17,642)	(104)	505,303	(334)
Share of result in joint venture		-	(7,069)	-	-	-	-	-	(7,069)
Operating profit/(loss) before impairment and taxation		135,438	53,843	60,064	20,242	34,827	2,094	(75,955)	230,553
Impairment	XI	322	(2,572)	(198)	(209)	(340)	-	-	(2,997)
Operating profit/(loss) before taxation		135,760	51,271	59,866	20,033	34,487	2,094	(75,955)	227,556
Taxation	XII	(39,902)	6,144	(11,883)	(5,935)	(7,345)	(725)	-	(59,646)
Profit/(loss) for the year		**95,858**	**57,415**	**47,983**	**14,098**	**27,142**	**1,369**	**(75,955)**	**167,910**
External revenues		1,203,649	16,078	137,695	163,619	91,884	461	-	1,613,386
Revenues from other segments		17,650	578,500	963	27,242	4,654	7,071	(636,080)	-
Total revenues		**1,221,299**	**594,578**	**138,658**	**190,861**	**96,538**	**7,532**	**(636,080)**	**1,613,386**
Segment assets		20,122,125	1,382,004	146,150	207,912	374,269	29,791	-	22,262,251
Segment liabilities		18,568,340	221,780	12,171	45,490	58,423	1,582	-	18,907,786

(€'000)	Notes	2015 Euroclear Bank	Euroclear SA/NV	Euroclear UK & Ireland	ESES CSDs	Nordics	Other	Eliminations	Group
Net interest income	VI	96,936	680	984	796	(195)	(241)	-	98,960
Net fee and commission income	VII	569,125	(8)	136,419	187,650	89,613	(5)	(32)	982,762
Intra-group recharges		512	488,264	122	437	745	-	(485,499)	4,581
Other income		33,852	260,933	(7)	3,504	9	6,186	(256,773)	47,704
Operating income		700,425	749,869	137,518	192,387	90,172	5,940	(742,304)	1,134,007
Staff costs	X	(124,965)	(258,044)	(8,537)	(19,125)	(17,179)	-	-	(427,850)
Other direct costs	X	(28,653)	(209,529)	(4,839)	(7,193)	(22,107)	(3,078)	10,029	(265,370)
Depreciation and amortisation	XVII, XVIII	(1,632)	(21,057)	(45)	(872)	(2,856)	(1,525)	-	(27,987)
Royalty fees		(25,678)	-	(510)	(575)	(294)	-	1,379	(25,678)
Group non-operational and Administrative support services		(290,940)	(1,774)	(68,575)	(110,855)	(14,509)	(19)	485,499	(1,173)
Share of result in joint venture		-	(6,520)	-	-	-	-	-	(6,520)
Operating profit/(loss) before impairment and taxation		228,557	252,945	55,012	53,767	33,227	1,318	(245,397)	379,429
Impairment	XI	(288)	(162)	(18)	(103)	(186)	-	-	(757)
Operating profit/(loss) before taxation		228,269	252,783	54,994	53,664	33,041	1,318	(245,397)	378,672
Taxation	XII	(68,796)	2,360	(11,268)	(17,849)	(7,072)	(393)	-	(103,018)
Profit/(loss) for the year		**159,473**	**255,143**	**43,726**	**35,815**	**25,969**	**925**	**(245,397)**	**275,654**
External revenues		1,125,595	21,476	143,134	171,198	87,952	(293)	-	1,549,062
Revenues from other segments		11,153	729,482	1,133	26,116	4,039	8,510	(780,433)	-
Total revenues		**1,136,748**	**750,958**	**144,267**	**197,314**	**91,991**	**8,217**	**(780,433)**	**1,549,062**
Segment assets		19,747,105	1,424,175	133,051	199,408	349,869	28,346	-	21,881,954
Segment liabilities		18,237,908	177,734	9,839	44,950	36,648	578	-	18,507,657

The €75,955,000 remaining in the Eliminations column relates to dividends received from companies within the group (2015: €245,397,000).

VI. Net interest income

(€'000)	Notes	2016	2015
Interest income on financial instruments			
- Cash and balances with central banks		4,065	1,792
- Loans and advances		159,963	127,160
Interest income on defined benefit plans	XX	12	9
Total interest income		**164,040**	**128,961**
Interest expense on financial instruments			
- Deposits from central banks		(10,161)	(4,081)
- Deposits from banks and customers		(20,842)	(17,890)
- Available-for-sale financial assets		(8,234)	(4,203)
- Subordinated liabilities		-	(1,878)
Interest expense on defined benefit plans	XX	(1,744)	(1,949)
Total interest expense		**(40,981)**	**(30,001)**
Net interest income		**123,059**	**98,960**

Euroclear Bank has exercised in June 2015 its optional redemption rights on all of its Upper Tier 2 note with Euroclear Finance 2.

VII. Net fee and commission income

(€'000)	2016	2015
Fee and commission income		
Clearing and settlement	405,714	396,319
Safekeeping	643,551	624,276
Other	343,883	347,221
Total fee and commission income	**1,393,148**	**1,367,816**
Fee and commission expense		
Clearing and settlement	(80,444)	(72,906)
Safekeeping	(184,352)	(178,364)
Other	(143,687)	(133,784)
Total fee and commission expense	**(408,483)**	**(385,054)**
Net fee and commission income	**984,665**	**982,762**

Other fee and commission income mainly relates to communication fees and the recovery of out-of-pocket expenses incurred on behalf of clients, issuer services fees earned by Euroclear Finland and Euroclear Sweden, and revenue earned by Euroclear UK & Ireland for collecting

Stamp Duty Reserve Tax on behalf of HM Revenue & Customs in the United Kingdom and Stamp Duty on behalf of the Irish Revenue Commissioners.

Other fee and commission expense mainly relates to fees incurred on behalf of clients as well as other fees for collateral leasing and back-stop facilities.

VIII. Realised gains/(losses) on investment securities

(€'000)	Notes	2016	2015
Available-for-sale financial assets - fair value adjustment recognised in equity and released in profit or loss during the period - equity shares		2,516	20
Total		**2,516**	**20**

Realised gains relate to the sale of the ICE equity shares during the year.

IX. Net gains/(losses) on financial assets and liabilities held for trading

(€'000)	2016	2015
Foreign exchange trading	27,947	25,871
Total	**27,947**	**25,871**

The net gains on foreign exchange trading mainly relate to treasury swaps initiated by Euroclear Bank in order to convert balances in non-core currencies into euro or US dollars for re-investment purposes. Under IFRS, these results may not be included within net interest income.

X. Administrative expenses

(€'000)	Notes	2016	2015
Staff costs			
- Wages and salaries		308,707	306,001
- Social security costs		70,671	74,014
- Defined benefit plans	XX	18,536	19,537
- Defined contribution plans		6,027	6,579
- Other staff costs		21,687	22,207
Royalty fees	XXVI	27,275	25,678
Auditors' remuneration		2,307	2,123
Consultants fees		168,036	150,086
Occupancy		40,684	42,206
Maintenance and repairs		40,346	37,070
Travel and training		17,451	21,681
Communications		8,016	6,923
Other rent and non capitalised expenses		13,253	13,565
Other taxes		5,880	4,785
Depreciation and amortisation	XVII, XVIII	32,479	27,987
Other administrative expenses		27,112	26,729
Provisions for liabilities and charges	XIX	36,748	(1,396)
Capitalised expenses		(40,115)	(37,717)
Intellectual property repurchase		121,200	-
Total		**926,300**	**748,058**

The average number of persons employed by the group during the year was 3,940 (2015: 3,857).

The auditors' remuneration for Euroclear SA/NV and its subsidiary undertakings was as follows:

(€'000)	2016	2015
Fees payable to the Company's auditor for the audit of the Company's annual accounts	421	511
Fees payable to the Company's auditor and its associates for other services:		
- The audit of the Company's subsidiaries, pursuant to legislation	846	888
- Other attest and assurance services	912	697
- Tax services	-	9
- Other services	128	18
Fees included in the consolidated financial statements	2,307	2,123
Fees in respect of audit of pension plan	46	56
Total	**2,353**	**2,179**

Euroclear ensures that the independence of the external auditor is preserved through a specific policy adopted by the Board and agreed by PwC. This policy adheres to the highest standards of independence. The engagement of the external auditor for non-core services is subject to specific controls, monitored by the Board's Audit Committee.

XI. Impairment

(€'000)	Notes	2016	2015
Impairment charges			
Goodwill and intangible assets	XVIII	2,713	-
Other assets		284	757
Total		**2,997**	**757**

(€'000)	2016	2015
Other assets impaired		
At 1 January	2,316	1,568
Charge to the income statement	284	757
Amounts used	(481)	(31)
Exchange differences	(53)	22
At 31 December	**2,066**	**2,316**

The decision was taken in 2016 to impair the capitalised costs spent on the Domestic Funds Platform project, in light of the uncertainties as to the level of future business.

Other assets are principally made of amounts invoiced to and receivable from third party clients, Euroclear Bank's coupons and redemption proceeds, advances paid to suppliers, recoverable VAT and guarantee deposits.

For other assets, impairment mainly relates to fees receivable from clients in several of the group's (I)CSD subsidiaries, and to miscellaneous other receivables, the recovery of which is at least partially in doubt.

XII.Taxation

(€'000)	2016	2015
Current income tax expense	72,272	109,518
Adjustments to tax charge in respect of previous years	(398)	(1,305)
	71,874	**108,213**
Deferred tax charge/(income) relating to the origination and reversal of temporary differences	(12,249)	(5,195)
Deferred tax charge/(income) resulting from change in tax rate	21	-
Tax expense for the year	**59,646**	**103,018**

Further information on deferred tax is presented in Note XIII.

The tax on the group's profit before tax differs from the theoretical amount that would arise from using the standard rate as follows:

(€'000)	2016	2015
Operating profit/(loss) before tax	**227,556**	**378,672**
At standard rate of tax[(1)]	59,642	103,037
Effects of:		
- Notional interest on capital	(5,821)	(8,029)
- Expenses not deductible for tax purposes	4,191	8,636
- Elimination of intercompany dividends	(514)	(322)
- Share of net tax (profit)/loss of investments accounted for using equity method	2,403	2,216
- Income not subject to tax	(844)	(273)
- Disposal of subsidiaries	-	174
- Different rates in the companies in the group	966	9,766
- Change of tax rate on deferred taxation	21	-
- Utilisation/reversals of past derecognised deferred tax assets	-	(10,882)
- Adjustments to tax charge in respect of previous years	(398)	(1,305)
Tax expense for the year	**59,646**	**103,018**

[(1)] A rate of 26.21% (2015: 27.21%), representing the effective tax rate (before reversal of impairment), for the group, has been used as the standard rate.

Since 1 January 2006, the group entities in Belgium benefit from a tax reduction linked to a notional interest on capital.

The current income tax asset of €11,785,000 at 31 December 2016 (2015: €13,679,000) represents the total of amounts recoverable from the tax authorities relating to over-payments of income tax pre-payments, prior year adjustments and R&D tax credit.

The net tax effect linked to the intercompany dividends eliminated for consolidation purposes have been considered separately in order to adequately reflect the impact of this item of reconciliation on the tax expense. The expenses not deductible for tax purposes include the other tax effects of consolidation adjustments not subject to deferred tax.

The year-to-year variation of the effect of the different rates applicable to the companies within the group is explained by a combination of factors: decrease of the above group's effective tax rate and changes in the taxable basis of certain sizeable entities.

XIII. Deferred taxation

The details of deferred taxation are as follows:

(€'000)	Total	Maturity on or before 31 December 2017	Maturity after 31 December 2017
At 31 December 2016			
Assets			
Defined benefit plans	39,227	-	39,227
Available-for-sale securities	(417)	50	(467)
Cash flow hedging reserve	156	156	-
Financial assets/(liabilities) held for trading	196	-	196
Software development	96	17	79
Property, plant and equipment	666	21	645
Tax loss carried forward	96,120	3,533	92,587
Other temporary differences	17,728	16,806	922
Total	**153,772**	**20,583**	**133,189**
Liabilities			
Defined benefit plans	(2,682)	-	(2,682)
Other temporary differences	5,620	1,082	4,538
Total	**2,938**	**1,082**	**1,856**

(€'000)	Total	Maturity on or before 31 December 2016	Maturity after 31 December 2016
At 31 December 2015			
Assets			
Defined benefit plans	25,045	-	25,045
Available-for-sale securities	(352)	296	(648)
Cash flow hedging reserve	(523)	(523)	-
Financial assets/(liabilities) held for trading	196	-	196
Software development	148	27	121
Property, plant and equipment	717	68	649
Tax loss carried forward	101,711	3,458	98,253
Other temporary differences	4,851	940	3,911
Total	**131,793**	**4,266**	**127,527**
Liabilities			
Defined benefit plans	(2,073)	-	(2,073)
Other temporary differences	5,833	1,205	4,628
Total	**3,760**	**1,205**	**2,555**

Deferred taxes are classified as assets or liabilities depending on the total net deferred tax asset or liability across all types of deferred tax at year-end for each entity. At 31 December 2016 and 31 December 2015, Euroclear Sweden had a net deferred tax liability.

Deferred taxation for tax losses carried forward mainly relates to Euroclear SA/NV.

Analysis of the movements of the net deferred tax asset and liability balances is as follows:

(€'000)	Notes	2016	2015
At 1 January		128,033	134,676
Impact of change in accounting policy			
Acquisition of subsidiaries		350	-
Income statement		12,228	5,195
Deferred tax relating to items (charged) or credited to equity			
- Defined benefit plans	XX	9,572	(10,617)
- Revaluation reserve on available-for-sale financial assets	XXII	(65)	(560)
- Cash flow hedging reserve	XXII	678	(667)
Exchange differences		38	6
At 31 December		**150,834**	**128,033**

The deferred tax income/(charge) in the income statement comprises the following temporary differences:

(€'000)	Notes	2016	2015
Defined benefit plans	XX	5,310	5,403
Financial assets/(liabilities) held for trading		-	(27)
Software development		(32)	(45)
Property, plant and equipment		(24)	(159)
Tax losses carried forward		(5,941)	(7,558)
Reversal of impaired tax losses carried forward		-	10,882
Other temporary differences		12,915	(3,301)
Total		**12,228**	**5,195**

XIV. Available-for-sale financial assets

(€'000)	2016	2015
At 31 December		
Equity shares		
- Listed	220,864	267,487
- Unlisted but fair value determinable	14,568	14,435
Equity instruments at cost		
Listed debt instruments	2,605,327	2,158,938
Total	**2,840,759**	**2,440,860**

All debt securities have fixed coupons.

For unlisted securities, the valuation is based on the prices at which the securities could probably be sold to willing and knowledgeable parties. These prices are determined using generally accepted valuation techniques, including discounted cash flow models and relevant market multiples.

The realised results on the available-for-sale financial assets can be found in Note VIII.

The maturity profile of the available-for-sale financial assets can be found in Note IV.

The movement in available-for-sale financial assets can be summarised as follows:

(€'000)	Equity shares	Debt securities	Total
At 1 January 2016	281,922	2,158,938	2,440,860
Additions	-	6,263,183	6,263,183
Redemptions and disposals	(123)	(5,796,001)	(5,796,124)
Gains/losses from changes in fair value			
- (Gains)/losses on redeemed or sold securities	(2,516)	205	(2,311)
- Gains/(losses) on held securities	(43,851)	520	(43,331)
Amortisation of discounts and (premiums)	-	(20,650)	(20,650)
Net change in accrued interest	-	(868)	(868)
At 31 December 2016	**235,432**	**2,605,327**	**2,840,759**

(€'000)	Equity shares	Debt securities	Total
At 1 January 2015	161,923	3,589,003	3,750,926
Additions	4,552	11,461,200	11,465,752
Redemptions and disposals	(9)	(12,860,124)	(12,860,133)
Gains/losses from changes in fair value			
- (Gains)/losses on redeemed or sold securities	(21)	606	585
- Gains/(losses) on held securities	115,478	(864)	114,614
Amortisation of discounts and (premiums)	-	(18,283)	(18,283)
Net change in accrued interest	-	(12,601)	(12,601)
At 31 December 2015	**281,923**	**2,158,937**	**2,440,860**

XV. Financial instruments held for trading

XV.1. Fair value and notional amounts

The fair value and notional amounts of the group's trading derivatives were as follows:

	Fair value		Notional amount	
(€'000)	Assets	Liabilities	Assets	Liabilities
At 31 December 2016				
Foreign exchange derivatives				
- Forward foreign exchange	40,063	32,292	3,949,805	1,647,929
Total	**40,063**	**32,292**	**3,949,805**	**1,647,929**
At 31 December 2015				
Foreign exchange derivatives				
- Forward foreign exchange	6,897	4,533	1,079,786	1,361,603
Total	**6,897**	**4,533**	**1,079,786**	**1,361,603**

The notional amount related to forward foreign exchange contracts at 31 December 2016 and 31 December 2015 principally reflect to outstanding currency swaps.

In certain circumstances, currency forward exchange contracts are used by certain companies of the Euroclear group to hedge the fair value of some specific liabilities expressed in foreign currencies. These transactions do, however, not qualify for hedge accounting.

XVI. Derivatives used for hedging

Some of Euroclear Bank's fee income is sensitive to changes in foreign exchange rates. To protect this revenue stream from adverse movements in such rates, Euroclear Bank enters into currency forward foreign exchange contracts whereby it sells the relevant currencies on a future date at a predetermined price.

Such transactions are classified as cash flow hedges.

The positions taken on the hedging book are managed according to the following key principles:
- an exposure once hedged will not be re-opened; and

- unwinding of positions will be done only in exceptional circumstances, for instance in case of an over-hedged position.

XVI.1. Cash flow hedges

The fair value and notional amounts of the group's derivatives used for cash flow hedges were as follows:

(€'000)	Fair value Assets	Fair value Liabilities	Notional amount Assets	Notional amount Liabilities
At 31 December 2016				
Foreign exchange derivatives				
- Forward foreign exchange	568	1,026	107,043	75,740
Total	**568**	**1,026**	**107,043**	**75,740**
At 31 December 2015				
Foreign exchange derivatives				
- Forward foreign exchange	1,538	-	72,543	-
Total	**1,538**	**-**	**72,543**	**-**

The group applies hedge accounting for expected revenue streams influenced by changes in foreign exchange rates for certain currencies.

The amounts recognised in the cash flow hedging reserve at year-end will be gradually released to the income statement (net gains/losses on foreign exchange) in the following year, when the related cash flows materialise.

There was no *ineffectiveness* arising from cash flow hedging to be recognised in profit or loss as at 31 December 2016 and 31 December 2015.

There were no transactions for which cash flow hedge accounting had to be ceased in 2016 or 2015 as a result of the highly probable cash flows no longer expected to occur.

The movements in the cash flow hedging reserve can be detailed as follows:

(€'000)	Gross amount	Deferred tax	Net amount
At 1 January 2016	1,538	(522)	1,016
Amount released from other comprehensive income to profit or loss during the period	3,366	(1,144)	2,222
Change of fair value directly recognised in other comprehensive income during the year	(5,363)	1,822	(3,541)
Change to cash flow hedging reserve during the year	(1,997)	678	(1,319)
At 31 December 2016	**(459)**	**156**	**(303)**
At 1 January 2015	(425)	145	(280)
Amount released from other comprehensive income to profit or loss during the period	1,281	(435)	846
Change of fair value directly recognised in other comprehensive income during the year	682	(232)	450
Change to cash flow hedging reserve during the year	1,963	(667)	1,296
At 31 December 2015	**1,538**	**(522)**	**1,016**

XVI.2. Hedges of net investments in foreign operations

The group has hedged, until July 2011, part of the currency translation risk of net investments in foreign operations (EMXCo, Euroclear UK & Ireland, the UK branch of Euroclear SA/NV and Euroclear Sweden).

The balance of the hedge of net investments in foreign operations reserve can be detailed as follows:

(€'000)	Notes	2016	2015
At 1 January and 31 December		18,238	18,238

XVII. Property, plant and equipment

(€'000)	Notes	Land and buildings	Leasehold improvements	Furniture and fixtures	IT equipment	Other equipment	Total
Cost							
At 1 January 2016		91,891	56,463	13,843	138,959	576	301,732
Additions		552	1,082	518	11,640	31	13,823
Capitalisation of dilapidation provision	XIX	-	53	-	-	-	53
Transfer and disposals		-	(444)	453	(29,729)	-	(29,720)
Exchange differences		-	(988)	(240)	(501)	(2)	(1,731)
At 31 December 2016		**92,443**	**56,166**	**14,574**	**120,369**	**605**	**284,157**
Accumulated depreciation							
At 1 January 2016		(58,841)	(34,905)	(8,165)	(98,127)	(85)	(200,123)
Depreciation charge		(2,545)	(4,399)	(1,333)	(15,845)	(29)	(24,151)
Transfer and disposals		3	1	-	29,692	-	29,696
Exchange differences		-	306	157	451	(1)	913
At 31 December 2016		**(61,383)**	**(38,997)**	**(9,341)**	**(83,829)**	**(115)**	**(193,665)**
Net book value at 31 December 2016		**31,060**	**17,169**	**5,233**	**36,540**	**490**	**90,492**

(€'000)		Land and buildings	Leasehold improvements	Furniture and fixtures	IT equipment	Other equipment	Total
Cost							
At 1 January 2015		88,183	53,218	13,097	129,100	730	284,328
Additions		1,367	5,737	587	14,979	6	22,676
Capitalisation of dilapidation provision	XIX	-	470	-	-	-	470
Transfer and disposals		2,341	(3,442)	43	(5,402)	(163)	(6,623)
Exchange differences		-	480	116	282	3	881
At 31 December 2015		**91,891**	**56,463**	**13,843**	**138,959**	**576**	**301,732**
Accumulated depreciation							
At 1 January 2015		(55,443)	(31,600)	(7,515)	(88,489)	(216)	(183,263)
Depreciation charge		(2,405)	(4,357)	(1,252)	(14,595)	(30)	(22,639)
Transfer and disposals		(993)	1,283	687	5,209	163	6,349
Exchange differences		-	(231)	(85)	(252)	(2)	(570)
At 31 December 2015		**(58,841)**	**(34,905)**	**(8,165)**	**(98,127)**	**(85)**	**(200,123)**
Net book value at 31 December 2015		**33,050**	**21,558**	**5,678**	**40,832**	**491**	**101,609**

The figures above include cost of property, plant and equipment under construction for an amount of €1,489,000. (2015: €2,449,000).

XVIII. Goodwill and intangible assets

(€'000)	Internally developed software	Purchased software	Know-how	Goodwill	Contractual customer relationship	Unpatented technology	Trademarks	Total
Cost								
At 1 January 2016	51,840	69,001	46,001	1,421,151	21,964	59,725	-	1,669,682
Additions	33,452	11,472	-	-	-	-	10,200	55,124
Transfer and disposals	(149)	(649)	-	-	-	-	-	(798)
Exchange differences	(30)	(823)	(49)	(10,090)	-	-	-	(10,992)
At 31 December 2016	**85,113**	**79,001**	**45,952**	**1,411,061**	**21,964**	**59,725**	**10,200**	**1,713,016**
Accumulated amortisation and impairment								
At 1 January 2016	(3,075)	(48,447)	(46,001)	(536,170)	-	(59,725)	-	(693,418)
Amortisation charges	(4,426)	(3,902)	-	-	-	-	-	(8,328)
Impairment charge	(2,713)	-	-	-	-	-	-	(2,713)
Transfer and disposals	(1)	(2)	-	-	-	-	-	(3)
Exchange differences	-	827	49	615	-	-	-	1,491
At 31 December 2016	**(10,215)**	**(51,524)**	**(45,952)**	**(535,555)**	**-**	**(59,725)**	**-**	**(702,971)**
Net book value at 31 December 2016	**74,898**	**27,477**	**-**	**875,506**	**21,964**	**-**	**10,200**	**1,010,045**

(€'000)	Internally developed software	Purchased software	Know-how	Goodwill	Contractual customer relationship	Unpatented technology	Trademarks	Total
Cost								
At 1 January 2015	34,778	72,849	45,974	1,415,850	21,964	59,725	-	1,651,140
Additions	27,159	15,042	-	-	-	-	-	42,201
Transfer and disposals	(10,097)	(19,275)	-	-	-	-	-	(29,372)
Exchange differences	-	385	27	5,301	-	-	-	5,713
At 31 December 2015	**51,840**	**69,001**	**46,001**	**1,421,151**	**21,964**	**59,725**	**-**	**1,669,682**
Accumulated amortisation and impairment								
At 1 January 2015	(28,543)	(46,645)	(45,974)	(535,820)	-	(59,725)	-	(716,707)
Amortisation charges	(2,630)	(2,718)	-	-	-	-	-	(5,348)
Transfer and disposals	28,098	1,274	-	-	-	-	-	29,372
Exchange differences	-	(358)	(27)	(350)	-	-	-	(735)
At 31 December 2015	**(3,075)**	**(48,447)**	**(46,001)**	**(536,170)**	**-**	**(59,725)**	**-**	**(693,418)**
Net book value at 31 December 2015	**48,765**	**20,554**	**-**	**884,981**	**21,964**	**-**	**-**	**976,264**

The Euroclear trademarks have been transferred from Euroclear plc to Euroclear SA/NV on 31 December 2016 against cash consideration.

Goodwill and the contractual customer relationship relate to the acquisition of EMXCo, Euroclear Belgium, Euroclear Finland, Euroclear France, Euroclear Nederland, Euroclear Sweden and Euroclear UK & Ireland.

The unpatented technology related to the infrastructure of Euroclear Finland and Euroclear Sweden, which was fully amortised by mid-2012.

XVIII.1. Determination of the cash-generating units

Goodwill impairment reviews are based on the cash-generating units (CGUs) for the group's three relevant operating segments: the ESES CSDs (Euroclear Belgium, Euroclear France, Euroclear Nederland), Euroclear UK & Ireland (Euroclear UK & Ireland and EMX Company Ltd, which was integrated into Euroclear UK & Ireland in 2010) and the Nordics (Euroclear Finland and Euroclear Sweden).

Except for Euroclear Sweden, goodwill and contractual customer relationship are expressed and tested for impairment purposes in euro. At the time of the acquisition of Euroclear UK & Ireland, the related goodwill was considered as a non-monetary asset of the acquirer and therefore expressed in euro. At the time of migration to IFRS, which considers goodwill to be a monetary asset of the acquired entity, Euroclear decided not to restate prior years' business combinations. The goodwill relating to EMX Company Ltd, now appraised together with that of Euroclear UK & Ireland, is expressed in sterling but is translated into euro at the spot rate on closing date for the purpose of impairment testing.

XVIII.2. Basis on which recoverable amounts have been determined

The recoverable amounts is based on the 'value in use' using the discounted cash flow methodology for each segment. The 2016 valuation of all the entities concerned is based on a five-year free cash flow forecast with projections for periods beyond this assuming a perpetual annuity ranging between 1.7% and 2% depending on the concerned entity.

The net book values of the goodwill, and Euroclear Belgium's contractual customer relationships, are set out in the table below.

(€'000)	2016	2015
Euroclear UK & Ireland	204,045	206,762
ESES	484,626	484,626
NCSD	208,799	215,557
	897,470	906,945

These are the only intangible assets considered to have indefinite useful lives.

XVIII.3. Key assumptions related to discount factors

The appropriate discount rates are determined by applying the Capital Asset Pricing Model (CAPM). The discount rates and perpetual growth rates used for each CGU in the 2016 and 2015 impairment reviews were as follows:

	2016		2015	
	Discount rate	Perpetual growth rate	Discount rate	Perpetual growth rate
Euroclear UK & Ireland	6.70%	1.70%	7.50%	1.70%
ESES	6.50%	1.70%	6.10%	1.70%
NCSD	8.30%	1.70%-2.00%	7.90%	1.70%-2.00%

XVIII.4. The 2016 impairment review

The key assumptions for the valuation exercise are based on both external sources of information and on internal expectations (assets held in custody, transaction volumes, interest rates, etc.). Forecasts are taken from Board approved plans which translate into resilient profitability trends throughout 2017 and the years beyond. For all operating segments, their valuation indicated that the current values of goodwill and related intangibles are fair and justified.

The Board concluded that in 2016, there is no goodwill impairment risk arising from the review.

As far as sensitivity analysis is concerned, neither an increase of the discount rate by 1% nor a decrease of the business drivers by 5% would have resulted in an impairment in one of the CGUs (all other factors being equal).

The changes in the parameters used for the sensitivity analysis set out above are based on management's estimates of what level of change is reasonably possible. For example, the choice of a 5% decrease for business volumes is justified by the volatility observed between forecasts and actuals over the past four years while the increase of the discount rate is justified by the highest yearly variance over the past four years.

XIX. Provisions for liabilities and charges

(€'000)		Onerous contracts	Early retirement	Dilapidation	Litigation	Other provisions	Total
At 1 January 2016		3,063	-	3,759	-	6,361	13,183
Capitalisation of dilapidation provision	XVII	-	-	53	-	-	53
Additions		-	34,573	-	75	3,941	38,589
Unused amounts reversed during the period		(1,741)	-	-	-	(100)	(1,841)
Amounts used		-	-	-	-	(3,143)	(3,143)
Exchange differences		-	-	(260)	-	(130)	(390)
At 31 December 2016		**1,322**	**34,573**	**3,552**	**75**	**6,929**	**46,451**

At year-end 2016, the outstanding provision for onerous contracts mainly relates to one onerous contract recognised in previous years. This provision will be progressively used over the remaining period of the concerned contract.

Provisions for early retirement of €34,600,000 were created at the end of 2016. This provision will be reclassified to accruals as soon as the amounts and timing of the payments are known, which is expected to be in 2017.

Provisions for dilapidation costs are recorded to reflect end-of-lease obligations in several countries.

The additions in 'other provisions' relate to the increase of provisions to reflect the uncertainty as to the recovery of taxes. The amounts used reflect the use of a tax-related provision and the use of most of the outstanding provision recorded by Euroclear Belgium at the end of 2012 in relation to the dematerialisation of Belgian securities, which involved a series of discontinuation costs, amongst others the redeployment of staff, early retirement and severance costs.

The current portion of the provisions for liabilities and charges is estimated at €38,128,000 (2015: €8,237,000).

XX. Defined benefit plans

The group operates various post-employment schemes, including defined benefit and defined contribution pension plans, and post-employment medical plans.

The group has several defined benefit pension plans covering employees in Belgium, France, Japan, the Netherlands and Sweden under broadly similar regulatory frameworks. The plans exclusively provide retirement and death benefits to the eligible participants. All of the defined benefit pension plans are final or average salary pension plans, which provide benefits to members in the form of a lump sum payment or a guaranteed level of pension payable for life. The level of benefits provided depends on members' length of service and their salary in the final years leading up to retirement. The plans face broadly similar risks, as described below. The majority of benefit payments are from the administered funds; however, there are also a limited number of unfunded plans where the company meets the benefit payment obligation as it falls due (Japan). Plan assets are governed by local regulations and practice in each country, as is the nature of the relationship between the group and the pension funds Board of Directors. Responsibility for governance of the plans – including investment decisions and contribution schedules – lies jointly with the sponsoring companies and the Board of Directors. The Board of Directors must be composed of representatives of the company and plan participants in accordance with the plan's regulations.

The group also operates a number of post-employment medical benefit schemes, in Belgium and France. These plans are unfunded. The method of accounting, significant assumptions and the frequency of valuations are similar to those used for defined benefit pension schemes with the addition of actuarial assumptions relating to the long-term increase in healthcare costs.

Finally, the group operates certain defined contribution schemes in Belgium which present particular features usually associated with defined benefit plans. These plans indeed foresee a legally guaranteed rate of return. As a result of the persisting low interest rates environment, this legally guaranteed return may not be matched by the return provided by the insurance companies. This means that the financial market risk related to these plans is partially borne by the employer, who therefore might face a net liability. The latter does however not materially impact the group's net defined benefit liability as the insurance company continues to guarantee the total interest rate on the accrued accumulated reserves up to the legal minimum guaranteed level until 2016. These schemes have been included for the first time in the defined benefit obligations figures in 2016 (see line Refinement).

A full actuarial valuation of the plans, under IFRS, was made by independent qualified professional actuaries as of 31 December 2016 and showed a deficit of €125,192,000 (2015: €79,589,000) offset by a pension surplus of €540,000 (2015: €533,000). The valuation covered all the plans.

The pension cost in 2016 of €20,268,000 (2015: €21,477,000) has been fully recognised in the current year. The contribution, reflecting employer's contributions for funded plans and benefit disbursements for unfunded plans, amounted to €4,439,000 (2015: €5,068,000).

The major assumptions used by the actuaries in their valuations were:

	2016	2015
Discount rate	1.77%	2.31%
Expected inflation rate	1.82%	1.72%
Future salary increases	3.29%	3.16%
Expected medical cost trend rate	4.78%	4.83%

The above percentages are weighted averages of the assumptions used for the individual plans.

Assumptions regarding future mortality experience are set based on advice and published statistics in each territory (MR/FR table with an age set back of three years in Belgium, TGHF 05 table in France, AG Prognosetafel 2016 with 2016 experienced mortality in the Netherlands, EPF 2014 rates in Japan and PRI 2011 in Sweden).

The amounts recognised in the balance sheet are as follows:

(€'000)	2016	2015
Present value of funded obligations	(366,558)	(278,488)
Fair value of plan assets	297,786	246,429
	(68,772)	(32,059)
Present value of unfunded obligations	(55,207)	(46,045)
Irrecoverable surplus	(673)	(952)
Net pension deficit	**(124,652)**	**(79,056)**

The value of assets in all plans was:

	2016			2015		
(€'000)	Quoted	Unquoted	Total	Quoted	Unquoted	Total
Equity instruments						
- European equities	39,645	-	39,645	38,539	-	38,539
- Global equities	78,355	-	78,355	77,388	-	77,388
- Emerging markets equities	3,202	-	3,202	2,353	-	2,353
- European real estate equities	9,644	-	9,644	9,413	-	9,413
- US equities	-	-	-	100	-	100
- Japan equities	-	-	-	34	-	34
Debt instruments						
- EMU government bonds	49,875	-	49,875	54,925	-	54,925
- EMU corporate bonds	48,799	-	48,799	42,047	-	42,047
- Euro inflation-linked bonds	19,289	-	19,289	18,878	-	18,878
Property	1,933	-	1,933	1,500	-	1,500
Cash and cash equivalents	103	-	103	174	-	174
Qualifying insurance policies	-	947	947	-	994	994
Investment funds	-	-	-	25	-	25
Other	45,994	-	45,994	59	-	59
Total market value of assets	**296,839**	**947**	**297,786**	**245,435**	**994**	**246,429**

The assets of the funded plans are held separately from those of the group. The group ensures that the investment positions are managed within an asset-liability matching (ALM) framework that has been developed to achieve long-term investments that are in line with the obligations under the pension schemes. Within this framework, the group's ALM objective is to match assets to the pension obligations by investing in long-term fixed interest securities with maturities that match the benefit payments as they fall due and in the appropriate currency. The company actively monitors how the duration and the expected yield of the investments are matching the expected cash outflows arising from the pension obligations. A large proportion of assets consists of equities and bonds, although the group also invests in property, cash and holds some insurance assets. The group believes that equities offer the best returns over the long term with an acceptable level of risk.

The changes in the net deficit are as follows:

(€'000)	Notes	Medical plans Present value of obligations	Pension plans Present value of obligations	Fair value of plan assets	Total	Asset Ceiling	Total
At 1 January 2016		**44,895**	**279,638**	**(246,429)**	**33,209**	**952**	**79,056**
Current service cost	X	1,885	17,914	-	17,914	-	19,799
Past service cost	X	-	(1,263)	-	(1,263)	-	(1,263)
Net interest expense/(income)	VI	982	6,420	(5,670)	750	-	1,732
Income statement		**2,867**	**23,071**	**(5,670)**	**17,401**	**-**	**20,268**
Remeasurements							
Experience (gains)/losses		(2,039)	1,271	(4,389)	(3,118)	-	(5,157)
(Gains)/losses due to change in demographic assumptions		-	(611)	-	(611)	-	(611)
(Gains)/losses due to change in financial assumptions		8,269	26,924	-	26,924	-	35,193
Refinement		-	46,684	(45,936)	748	-	748
Settlements		-	(1,291)	1,291	-	-	-
Changes in asset ceiling		-	-	-	-	(279)	(279)
Statement of other comprehensive income		**6,230**	**72,977**	**(49,034)**	**23,943**	**(279)**	**29,894**
Employer's contributions		(355)	-	(4,084)	(4,084)	-	(4,439)
Exchange differences		-	(1,068)	941	(127)	-	(127)
Curtailments							
Benefit payments		-	(6,490)	6,490	-	-	-
At 31 December 2016		**53,637**	**368,128**	**(297,786)**	**70,342**	**673**	**124,652**

		Medical plans	Pension plans				
(€'000)	Notes	Present value of obligations	Present value of obligations	Fair value of plan assets	Total	Asset Ceiling	Total
At 1 January 2015		**45,534**	**279,667**	**(228,656)**	**51,011**	**-**	**96,545**
Current service cost	X	1,962	17,575	-	17,575	-	19,537
Net interest expense/(income)	VI	951	5,976	(4,987)	989	-	1,940
Income statement		**2,913**	**23,551**	**(4,987)**	**18,564**	**-**	**21,477**
Remeasurements							
Experience (gains)/losses		(1,459)	(987)	(15,644)	(16,631)	-	(18,090)
(Gains)/losses due to change in demographic assumptions		3,216	(5,670)	-	(5,670)	-	(2,454)
(Gains)/losses due to change in financial assumptions		(4,949)	(9,688)	-	(9,688)	-	(14,637)
Changes in asset ceiling		-	-	-	-	952	952
Statement of other comprehensive income		**(3,192)**	**(16,345)**	**(15,644)**	**(31,989)**	**952**	**(34,229)**
Employer's contributions		(360)	-	(4,708)	(4,708)	-	(5,068)
Exchange differences		-	878	(547)	331	-	331
Transfers		-	161	(161)	-	-	-
Benefit payments		-	(8,274)	8,274	-	-	-
At 31 December 2015		**44,895**	**279,638**	**(246,429)**	**33,209**	**952**	**79,056**

The weighted average duration of the defined benefit obligations is 16.8 years (2015: 17.4 years).

Funding levels are monitored on an annual basis and contributions are made to comply with minimum requirements as determined by local regulations and, if applicable, internal funding policy. The group considers that the contribution rates set at the last valuation date are sufficient to eliminate the deficit over the agreed period.

Expected contributions to post-employment benefit plans for the year ending 31 December 2017 are €4,864,000.

The cumulative actuarial loss recognised in other comprehensive income as at 31 December 2016 was €81,371,000 (2015: €51,476,000).

The sensitivity of the defined benefit obligations to a 1% movement in the weighted principal assumptions is:

(€'000)	Increase in assumption	Decrease in assumtion
Discount rate	-15.6%	16.8%
Salary increase rate	14.6%	-14.6%
Inflation rate	11.5%	-11.5%
Medical trend rate	28.0%	-20.0%

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligations to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position. As the majority of the liabilities are not affected by the life expectancy risk (because of lump sum payments), no life expectancy sensitivity is considered.

Through its defined benefit pension plans and post-employment medical plans, the group is exposed to a number of risks, the most significant of which are detailed below:

- Asset volatility: The risk is kept under control thanks to proper risk management procedures and strategic asset allocation driven by the financial characteristics of the plans, in particular the plans liabilities and the risk tolerance of the Board and the group. The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit. Belgian plans hold 60% of equities, which are expected to outperform corporate bonds in the long-term while providing volatility and risk in the short-term. The group believes that due to the long-term nature of the plan liabilities and the strength of the supporting group, a level of continuing equity investment is an appropriate element of the group's long term strategy to manage the plans efficiently. See above for more details on the group's asset-liability matching strategy.

- Changes in bond yields: A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.
- Inflation risk: The plans' benefit obligations are linked to inflation (see sensitivity impact), and higher inflation will lead to higher liabilities. The impact is however limited and the assumptions are cautiously monitored annually.
- Life expectancy: As mentioned, longevity risk is limited as the majority of the benefit payments are lump sums.
- Medical trend rate risk: As the liabilities of the Belgian and French medical plans are very sensitive to the used medical trend rate, the evolution of this trend rate is monitored regularly to make sure that this trend rate properly reflects the long term expected evolution of the medical cost.
- Salary increase: As the pension liabilities are quite sensitive to salary increase, the used assumptions are monitored closely and historic salary evolution is compared against the used assumptions.

The group has not changed the processes used to manage its risks from previous periods.

The movement in the deferred tax asset relating to the pension deficit is as follows:

(€'000)	Notes	2016	2015
Amount credited/(charged) through equity	XIII	9,572	(10,617)
Amount credited/(charged) through the income statement	XIII	5,310	5,403
Exchange differences		(92)	81
Increase/(decrease) in deferred tax asset		**14,790**	**(5,133)**

XXI. Share capital and share premium

		(€'000)		
Equity shares	**Number of shares**	**Share Capital**	**Share Premium**	**Total**
At 1 January and 31 December 2016	12,014,560	839,601	1,623,628	2,463,229
At 1 January and 31 December 2015	12,014,560	839,601	1,623,628	2,463,229

The shares have attached to them full voting, dividend and capital distribution rights.

XXII. Other reserves

(€'000)	Notes	Available-for-sale revaluation reserve	Cash flow hedging reserve	Hedge of net inv. in foreign operations reserve	Foreign currency translation reserve	Legal reserve	Total
At 1 January 2016		161,187	1,016	18,238	7,127	103,445	291,013
Fair value adjustments	XIV, XVI	(45,642)	(1,997)	-	-	-	(47,639)
Deferred tax on fair value adjustments	XIII	(65)	678	-	-	-	613
Foreign currency translation differences		-	-	-	(28,792)	-	(28,792)
Transfer to retained earnings		-	-	-	-	9,856	9,856
At 31 December 2016		**115,480**	**(303)**	**18,238**	**(21,665)**	**113,301**	**225,051**
At 1 January 2015		46,548	(280)	18,238	(3,898)	91,613	152,221
Fair value adjustments	XIV, XVI	115,199	1,963	-	-	-	117,162
Deferred tax on fair value adjustments	XIII	(560)	(667)	-	-	-	(1,227)
Foreign currency translation differences		-	-	-	11,025	-	11,025
Transfer to retained earnings		-	-	-	-	11,832	11,832
At 31 December 2015		**161,187**	**1,016**	**18,238**	**7,127**	**103,445**	**291,013**

The hedge of net investment in foreign operations reserve and the foreign currency translation reserve relate to the group's subsidiaries in Sweden and the United Kingdom.

In addition to the translation of structural currency exposures relating to the group's subsidiaries and joint venture with a functional currency other than the euro, the foreign currency translation reserve includes the translation impact of goodwill and intangible assets expressed in Swedish krona and sterling that were recognised at the time of acquisition of subsidiaries in Sweden, and EMXCo in the United Kingdom.

The legal reserve represents non-distributable amounts required to be established as separate reserves in compliance with local laws in certain countries where the group operates.

XXIII. Dividends paid

€ per share	2016	2015
Equity paid	**7.50**	**17.66**
(€'000)		
Equity paid	**90,110**	**212,180**

A dividend of €90,110,000 was paid by Euroclear SA/NV in respect of the financial year ending 31 December 2015 (out of the total 2015 dividend of €215,181,000).

XXIV. Contingent liabilities and commitments

(€'000)	2016	2015
At 31 December		
Collateral pledged, of which:	3,800,462	2,147,826
- Own assets	1,605,321	2,147,826
- Re-use of collateral received	2,195,141	-
Securities lending indemnifications	28,298,635	18,576,062

The collateral pledged mainly relates to

- securities deposited with the National Bank of Belgium as potential collateral, principally for Target2-related exposures. It includes investment securities with a market value of €1,569,282,000 (2015: €2,111,395,000) and the reuse of securities received as collateral for reverse repurchase agreements from participants with a market value of €2,195,141,000 (2015:€0); There was no exposure at 31 December 2016 (2015: €7,889,000); and
- a bank deposit of €500,000 (2015: €500,000) pledged by Euroclear Finland to a third-party registration fund in order to fulfil its obligations as account operator.

Under the terms of the Euroclear Securities Lending and Borrowing Programme, Euroclear Bank provides a guarantee to securities lenders whereby if a securities borrower is unable to return the securities, Euroclear Bank guarantees the lender to receive replacement securities or their cash equivalent. A similar guarantee applies to Euroclear Bank's GC Access Programme. The guarantee is valued at market value of the loan securities plus accrued interest. Euroclear Bank's policy is that all securities borrowings are covered by collateral pledged by the borrowing banks and customers.

XXV. Operating lease commitments

(€'000)	2016		2015	
	Property	Vehicles, plant and equipment	Property	Vehicles, plant and equipment
Group company as lessee				
Future aggregate minimum lease payments under non-cancellable operating leases:	**122,025**	**38,244**	**104,549**	**53,407**
- up to one year	21,405	16,555	19,970	18,972
- later than one year and not later than five years	55,716	21,689	58,574	33,984
- over five years	44,904	-	26,005	451

The total sublease payments receivable relating to the above operating leases amounted to €210,619 (2015:€0).

Minimum lease payments recognised as an expense	20,164	18,443	19,969	17,847

XXVI. Related party disclosures

Euroclear SA/NV is controlled by Euroclear Investments SA/NV, incorporated in Luxembourg, which owns 99.99% of the ordinary shares. The ultimate parent and controlling party of the group is Euroclear plc, incorporated in the United Kingdom.

Euroclear SA/NV's investments in its subsidiaries are set out in Note I.

The following is a summary of the balances relating to transactions with Euroclear SA/NV's parent, ultimate parent and other companies in the Euroclear group included in its consolidated financial statements:

	2016					2015				
(€'000)	Immediate parent	Ultimate parent company	Other group companies	Joint venture	Total	Immediate parent	Ultimate parent company	Other group companies	Joint venture	Total
Assets										
Loans and advances	-	-	8,161	-	8,161	-	-	10,202	-	10,202
Other assets	144	187	-	838	1,169	148	182	201	4,352	4,883
Prepayments and accrued income	209	-	-	746	955	-	728	19	-	747
Investments in subsidiaries and joint ventures	-	-	6,294	10,980	17,274	-	-	-	8,857	8,857
Total assets	**353**	**187**	**14,455**	**12,564**	**27,559**	**148**	**910**	**10,422**	**13,209**	**24,689**
Liabilities										
Deposits from banks and customers	199,292	9	-	-	199,301	273	8	-	-	281
Other liabilities	1,045	-	-	-	1,045	-	-	411	-	411
Accruals and deferred income	298	7,335	-	-	7,633	272	6,392	-	-	6,664
Total liabilities	**200,635**	**7,344**	**-**	**-**	**207,979**	**545**	**6,400**	**411**	**-**	**7,356**
Income statement										
Interest income	-	11	376	-	387	1	2	466	-	469
Interest expense	(335)	-	-	-	(335)	-	-	-	-	-
Fee and commission expense	-	(10)	-	-	(10)	-	(10)	-	-	(10)
Other operating income	694	2,015	-	4,890	7,599	697	2,755	1,130	4,336	8,918
Administrative expense	(850)	(148,475)	(4,527)	-	(153,852)	(1,041)	(25,679)	(4,674)	-	(31,394)
Total income statement	**(491)**	**(146,459)**	**(4,151)**	**4,890**	**(146,211)**	**(343)**	**(22,932)**	**(3,078)**	**4,336**	**(22,017)**
Off-balance sheet										
Liquidity facility received	-	20,000	-	-	20,000	-	20,000	-	-	20,000
Liquidity facility given	-	-	(409)	-	(409)	-	-	(409)	-	(409)
Total off-balance sheet	**-**	**20,000**	**(409)**	**-**	**19,591**	**-**	**20,000**	**(409)**	**-**	**19,591**

Further details about transactions with related parties and of key management compensation are provided below.

XXVI.1. Transactions with other companies in the Euroclear group

XXVI.1.a. Loan

In July 2012, Euroclear SA/NV granted a ten-year loan to Euroclear France Properties SAS to finance the building and management costs of a computer center in France. Interest on the loan, payable annually accrues at a rate of 4.60% per annum. In February 2016, part of the loan (€2,000,000) was reimbursed. At 31 December 2016, the outstanding loan plus accrued interest amounted to €8,161,000 (2015: €10,202,000).

XXVI.1.b. Long term borrowing

On 19 December 2016, Euroclear Bank borrowed €200,000,000 from Euroclear Investments SA under the form of an internal convertible senior loan to strengthen its recovery profile.

XXVI.1.c. Bank accounts and term deposits

Euroclear Bank, a subsidiary of Euroclear SA/NV, provides banking services to other companies in the Euroclear group. Deposits are remunerated at market rates of interest.

XXVI.1.d. Administrative support

Certain administrative support costs are periodically recharged to and by other companies within the Euroclear group.
Euroclear SA/NV leases premises from Euroclear Properties France at market rates. The lease expires in 2025.

XXVI.1.e. Licence agreement

Under a licence agreement, Euroclear Plc has granted to Euroclear Bank the right to operate the Euroclear System and the right to use and sub-licence the Euroclear trademark. The agreement was terminated on 31 December 2016 when Euroclear plc transferred to Euroclear Bank all of its rights in the Euroclear system and the operation thereof. Euroclear Bank has paid a one-off indemnity of €121,200,000 in consideration for the immediate termination of the license agreement and for Euroclear Plc's waiver of its pre-emption rights. The Euroclear Trademarks have been transferred to Euroclear SA/NV for a price of €10,200,000.

XXVI.1.f. Liquidity facility

In July 2005, Euroclear plc provided a liquidity facility to Euroclear SA/NV for an aggregate principal amount of €20,000,000. The facility was made for an initial period of one year, automatically renewed. It can be terminated by either party with three months notice. A fee of 5 basis points is computed on the amount of the facility regardless of whether the facility is used. Any utilisation of the facility (none to date) is remunerated at Euribor plus 12.5 basis points.

In April 2015, Euroclear SA provided a two-year liquidity facility to Taskize Limited for an amount up to GBP 300,000 (€409,000). Taskize Limited must use the funds drawn under this agreement for the purpose of financing its operational and business setup costs and its initial application development costs. An annual fee of 0.55% is computed on the undrawn amount of the facility. Any utilisation of the facility (none to date) is remunerated at annual rate of 3.9%.

XXVI.1.g. Pension fund

The group considers its Belgian and Dutch pension funds as a related party as it has the ability to exercise significant influence over it in taking financial or operational decisions. Disclosures related to the pension fund are presented in Note XX.

XXVI.2. Key management compensation

The compensation of key management (members of the Management Committees of Euroclear SA/NV and its (I)CSD subsidiaries and group division heads) and non-executive directors was as follows:

(€'000)	2016	2015
Short-term employee benefits	17,406	17,650
Post-employment benefits	1,680	1,734
Other long-term benefits	2,562	2,416
Termination benefits	3,102	2,863
Total compensation of key management	24,750	24,663
Emoluments of non-executive directors	860	908
Total compensation of key management and directors	**25,610**	**25,571**

The National Bank of Belgium (NBB) has been informed of the compensation principles for the members of the Management Committees of Euroclear SA/NV and Euroclear Bank and of certain other senior management, taking into account the applicable regulations. The amounts - as approved by the respective Remuneration Committees/Boards - reflect these principles and more specifically the allocation between short-term and long-term benefits.

No loans or similar transactions occurred with directors, key management or their close family members.

The companies employing the Euroclear SA/NV non-executive directors are subject to the same terms, conditions and tariffs as other companies.

Directors' emoluments are in the form of fees with the exception of life insurance benefits for one director amounting to €11,000 (2015: €11,000).

XXVII. Events after the balance sheet date

Proposed dividend

On 23 February 2017, the directors resolved not to distribute a dividend in respect of the financial year ending 31 December 2016 (2015: €215,181,000 (€17.91 paid per equity share)).

Statutory auditor's report

to the general shareholders' meeting on the consolidated financial statements for the year ended 31 December 2016

In accordance with legal requirements, we report to you on the performance of our mandate of statutory Auditor. This report includes our report on the Consolidated Financial Statements for the year ended 31 December 2016 as defined below, as well as our report on other legal and regulatory requirements. These Consolidated Financial Statements comprise the consolidated statement of financial position as at 31 December 2016, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, as well as notes, comprising a summary of significant accounting policies and other explanatory information.

Report on the Consolidated Financial Statements – Unqualified opinion

We have audited the Consolidated Financial Statements of Euroclear SA ("the Company") and its subsidiaries (ly "the Group") for the year ended 31 December 2016, prepared in accordance with International Financial Reporting Standards, as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium. The total of the consolidated balance sheet amounts to '000' EUR 22.262.251 and the consolidated income statement shows a profit for the year of '000' EUR 167.910.

Board of directors' responsibility for the preparation of the Consolidated Financial Statements

The board of directors is responsible for the preparation and fair presentation of Consolidated Financial Statements in accordance with International Financial Reporting Standards, as adopted by the European Union, and with legal and regulatory requirements applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of Consolidated Financial Statements which are free from material misstatement, whether due to fraud or error.

Statutory auditor's responsibility

Our responsibility is to express an opinion on these Consolidated Financial Statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (ISA) as endorsed in Belgium. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Consolidated Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Consolidated Financial Statements. The procedures selected depend on the statutory auditor's judgment, including his assessment of the risks of material misstatement in the Consolidated Financial Statements, whether due to fraud or error. In making those risk assessments, the statutory auditor considers internal control relevant to the group's preparation and fair presentation of the Consolidated Financial Statements, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the board of directors, as well as evaluating the overall presentation of the Consolidated Financial Statements.

We have obtained from the board of directors and the Company's officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our unqualified opinion.

Unqualified Opinion

In our opinion, the Consolidated Financial Statements give a true and fair view of the group's net equity and consolidated financial position as at 31 December 2016 and of its consolidated financial performance and its consolidated statement of cash flows for the year then ended in accordance with International Financial Reporting Standards, as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium.

Report on other legal and regulatory requirements

The board of directors is responsible for the preparation and the content of the board of directors' report on the Consolidated Financial Statements.

In the context of our mandate and in accordance with the Belgian standard which is complementary to the International Standards on Auditing (ISAs) as applicable in Belgium, our responsibility is to verify, in all material respects, compliance with certain legal and regulatory requirements. On this basis, we provide the following additional statement which does not impact our opinion on the Consolidated Financial Statements:

- The board of directors' report on the Consolidated Financial Statements, prepared in accordance with article 119 of the Companies' Code and to be deposited in accordance with article 100 of the Companies' Code, includes, both in terms of form and content, the information required by law, is consistent with the Consolidated Financial Statements and does not present any material inconsistencies with the information that we became aware of during the performance of our mandate.

Brussel, 27 February 2017

The Statutory Auditor

PwC Reviseurs d'Entreprises sccrl/ Bedrijfsrevisoren bcvba

Represented by

D. Walgrave

Reviseur d'Entreprises / Bedrijfsrevisor