HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

ANNUAL FINANCIAL REPORT

For the period 1 January 2018 – 31 December 2018

In accordance with the International Financial Reporting Standards

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1. DECLARATIONS BY MEMBERS OF THE BOARD OF DIRECTORS

(in accordance with article 4 of Law 3556/2007)

WE DECLARE THAT

1. to the best of our knowledge, the attached Annual Financial Statements of the Group and the Company, which have been prepared in accordance with the International Financial Accounting Standards in effect, reflect in a true manner the assets, liabilities and equity on 31.12.2018 and the results for fiscal year 2018 of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX), as well as of the companies that are included in the consolidation taken as a whole;

2. to the best of our knowledge, the attached report of the Board of Directors for the fiscal year 2018 reports in a truthful manner the performance and position of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX), as well as of the companies that are included in the consolidation taken as a whole, including a description of the main risks and uncertainties that they face;

3. to the best of our knowledge, the attached 2018 Annual Financial Statements are those that have been approved by the Board of Directors of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX) on 18.03.2019 and have been published by being uploaded on the internet, at www.athexgroup.gr.

Athens, 18 March 2019

THE CHAIRMAN OF THE BoD	THE CHIEF EXECUTIVE OFFICER	THE MEMBER OF THE BoD
GEORGE HANDJINICOLAOU **ID: X-501829**	**SOCRATES LAZARIDIS** **ID: AK-218278**	**NIKOLAOS MYLONAS** **ID: AK-088810**

2. REPORT OF THE BOARD OF DIRECTORS

OF

"HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A." FOR THE FISCAL YEAR FROM 1 JANUARY TO 31 DECEMBER 2018

(in accordance with article 4 of Law 3556/2007 and Law 4548/2018)

The Board of Directors of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE SA (Athens Exchange or ATHEX or the Company) publishes its Report annual separate and consolidated Financial Statements for the period that ended on 31.12.2018, in accordance with Law 4548/2018 and article 4 of Law 3556/2007.

The annual separate and consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards that were adopted by the European Union.

The Greek capital market

The Athens Exchange General Index closed on 31.12.2018 at 613.30 points, 23.6% lower than the close at the end of 2017 (802.37 points). The average capitalization of the market was €52.2bn, increased by 4.0% compared to 2017 (€50.2bn).

The total value of transactions in 2018 (€13.9bn) is 6.1% lower compared to 2017 (€14.8bn), while the average daily traded value was €55.7m compared to €58.8m in 2017, decreased by 5.3%. The average daily traded volume decreased by 48.7% (37.3m shares vs. 72.7m shares).

In the derivatives market, total trading activity dropped by 28.3% (2018: 13.9m contracts, 2017: 19.4m), while the average daily traded volume decreased by 27.7% (56.0 thousand contracts vs. 77.5 thousand).

Business Development

Organized market

New listings

In July 2018, the listing of CNL CAPITAL in the Main Market of the Athens exchange took place, through a capital increase by public offer, during which €4.2m were raised, using the EBB [Electronic Book Building] service provided by the Athens Exchange.

In addition, in the 1st half of 2018 the listing of the common corporate bonds by GEKTERNA (€120m raised), CORAL (€90m raised) and B&F (€25m raised) took place in the Fixed Income Segment of the Athens Exchange.

The issue of all of the abovementioned corporate bonds took place by public offer, using the EBB service.

On 17.07.2018, ATHEXCSD registered the shares of “WORLD EXCELLENT PRODUCTS S.A.” (“WEP”). At the time of registration, the company was not listed in any organized or non-organized market, nor was it listed in a Multilateral Trading Facility (MTF). Since then, the shares of WEP were listed in an MTF at the Vienna Stock Exchange, and on 06.09.2018 trading began. Settlement of trades on WEP shares is done by Clearstream Banking Luxemburg (CBL). CBL maintains an indirect link with ATHEXCSD through Citibank (Greece branch), a DSS Operator.

Significant corporate actions – Rights issues

- HALCOR merged by absorbing the non-listed company ELVAL and changed its name to ELVALHALCOR.
- ATTICA BANK and SFAKIANAKIS increased their share capital through the exercise of the preemption right by existing shareholders, raising a total of €94m.
- TERNA ENERGY raised its share capital in cash, and with existing shareholders waiving their preemption right, raising a total of €41.3m.
- PIPEWORKS TZIRAKIAN PROFIL and ATTICA HOLDINGS increased their share capital by capitalizing obligations and with existing shareholders waiving their preemption right in favor of creditors.
- NIKAS and FORTHNET listed new shares resulting from the conversion of convertible bonds.
- FOURLIS and COCA-COLA HBC AG listed new shares resulting from share capital increases due to the exercise of stock options.

Public offers – offers to buyout listed securities

- January 2018: The registration of the public offer for the shares of HYGEIA was completed.
- April 2018: The public offer for the Hellenic Certificates of Mermeren Kombinat Ad – Prilep was completed.

Listed companies forced buyouts (squeeze outs)

- June 2018: The squeeze out of the remaining shareholders of the listed company ATHINA was completed.
- July 2018: The squeeze out of the remaining shareholders of the listed company KORRES has completed.

Alternative market

In February 2018, the corporate bond of DELTA TECHNIKI began trading in the Fixed Income segment. The bond was covered by private placement and the total amount raised was €6.5m.

In March 2018 FOODLINK increased its share capital, with shareholders exercising their preemption right, raising €3m.

Launch of the Roots program

In December 2018 the Roots program was launched, with informational events in Athens and Thessaloniki.

The Roots program (www.roots-program.com) is an initiative by the Athens Exchange that is being implemented in collaboration with the Hellenic-American Chamber of Commerce, with the support of the Global Federation of Competitiveness Councils (GFCC) and the Ministry of Foreign Affairs, and aims to facilitate access to capital by Small and Medium Sized Enterprises (SMEs) through capital markets, by offering them support in the preparation and presentation of the investment proposals, in accordance with rules and best practices that are accepted internationally.

Other events to boost entrepreneurship

The Athens Exchange, together with the Hellenic-American Chamber of Commerce and Ernst & Young organized the competition "Make Innovation Work."

The aim of the competition was to contribute to the stimulation of Greek entrepreneurship and the Greek economy by promoting the creative potential of Greek businesses and enhancing their competitiveness in the international business environment.

In addition, the Athens Exchange supported the 1st Business Idea Contest of the Agricultural University in the process of finding mentors and connecting them with the wider business ecosystem. The mentors assisted the teams mainly with the financial support of their business plan and the development of marketing the idea. The technical support of the ideas was undertaken by professors of the Agricultural University. In addition, 3 executives from the Athens Exchange supported the competition with their contribution as mentors.

As part of the competition, the Exchange provided the venue for the events and the meetings, and hosted the final award ceremony. The winning teams received cash prizes sponsored by the Athens Exchange.

Through this initiative, the aim of the Exchange was not only to assist the teams in developing their initiatives, but also to connect people and organizations from different areas facilitating their collaboration on developing entrepreneurship.

Energy market development project

The liberalization of the energy market and the creation of new products, such as financial derivatives on electricity indices, as well as the involvement of the Athens Exchange Group in the project, resulted in the formation of preparation team, expansion and design of the risk management model of the market, as well as preparation of the licensing dossier to expand ATHEXClear's clearing license to the new financial products.

In the framework of this initiative, contacts were made with market participants in Greece and abroad to exchange views and transfer know-how.

The working group actively participated in the design of the clearing and settlement model for the market, next day and intraday trading, as well as in the drafting of the Clearing Regulation and drafts of technical decisions foreseen in the Regulation.

In addition, initiatives were undertaken to design derivatives products having as underlying security energy products, describe the procedures for clearing them as well as the procedures for risk management.

Development of a data warehouse for risk management data

In order to make possible the storage and handling of a large volume of historical data that concern risk management, the project to develop a data warehouse that had begun in 2017 was completed.

Besides keeping data, the aim is to make it possible to gather and combine information from different sources, reduce the time required for staff, and create reports in order to expand the amount of information being disseminated.

Utilizing the new infrastructure, the design and implementation of reports was completed that to a large extent automate the production and dissemination of information to investors in accordance with international standards (IOSCO disclosure standards), as well as specialized data to the regulatory authority.

Supporting trade clearing during pre-market

In order to improve services provided and strengthen its competitiveness, the Exchange decided to activate the Premarket Process, in accordance with which it is possible to trade securities before they are listed on its markets.

Because transactions that take place during Premarket are finalized only after the decision of the Exchange for the listing of the transferable securities in its markets, these transactions have some peculiarities compared to regular transactions that concern risk management as well as their clearing and settlement.

In order to support the new services, changes were made in the clearing, settlement and risk management information systems, as well as in the regulatory framework of ATHEXClear.

Releasing margins in securities directly by Clearing Members

In the context of constantly improving the services provided by ATHEXClear to Clearing Members, new functionality was implemented in the Clearing System in order to give the option to Clearing Members in the cash and derivatives markets to release margins in transferable securities which have been blocked as collateral in the Clearing System in favor of ATHEXClear, directly by the Clearing System, without intervention by an ATHEXClear user.

The new functionality replaces a procedure which required the Clearing Members that which to release collateral to declare it in writing by fax / mail to ATHEXClear, and the release was carried out by an ATHEXClear executive with a corresponding entry in the Clearing System.

With the new functionality, collateral release and return to the Clearing Member takes place immediately, the required time by clearing member and ATHEXClear executives is reduced to a minimum, while at the same time operating risk due to human error is reduced.

In order to implement the new process, the required design, implementation and test of the IT systems was necessary, as well as limited changes in ATHEXClear's regulatory decisions and internal procedures.

Improvements in the risk management model

In order to fulfill the observations and proposals of the Hellenic Capital Market Commission to improve the ATHEXClear's risk management model, a project to evaluation alternative improvements was undertaken, with the following prerequisites:

- To fully cover regulatory requirements
- To fit with the particular characteristics of the Greek market
- Not unjustifiably increase the cost for participants

The new model was certified by an independent specialized consultant, was presented to the Hellenic Capital Market Commission and the College and, following a decision by the Board of Directors, will go fully into production in the second quarter of 2019. In particular, the introduction of a collateral valuation limit went into effect in January 2019, in order to ensure the ability to liquidate them even under conditions of low liquidity.

Annual certification of the risk management models

In accordance with article 49 of Regulation (EU) 648/2012 (EMIR), an annual audit of the risk management models applied by ATHEXClear must be carried out by a specialized independent consultant.

The project was assigned to a specialized consultant, who completed his work in collaboration with ATHEXClear staff, and delivered the final report on the findings of the audit, which was submitted to the Hellenic Capital Market Commission, the Risk Committee and the Board of Directors of AthexClear.

The overall result of these audits is that there are no critical findings, and that the models examined are conservative enough.

BREXIT – Preparation of the Athens Exchange for the imminent exit of the United Kingdom from the European Union

In the context of Great Britain's forthcoming exit from the European Union (Brexit), with the exit date of 29.03.2019, ATHEX remote members headquartered in Great Britain have planned to access European markets through other European states, in order to maintain their MiFID European Passports and ensure the uninterrupted, unhindered access to European Exchanges.

In particular, the active remote ATHEX members headquartered in Great Britain are the following four: Citigroup Global Markets Limited, Credit Suisse Securities (EUROPE) Limited, UBS Limited and Merrill Lynch International.

These members informed ATHEX that they will again request to obtain the status of remote trading member in the ATHEX cash market through other subsidiaries not headquartered in Great Britain, which the existing ATHEX remote members headquartered in Great Britain will give up that status before Great Britain's exit date from the European Union, i.e. 29.03.2019.

Based on the above, the new remote members of the Athens Exchange are four, as follows:

1. Credit Suisse Securities Sociedad de Valores, Sociedad Anonima – which will replace Credit Suisse Securities (EUROPE) Limited
2. Citigroup Global Markets Europe AG – which will replace Citigroup Global Markets Limited
3. UBS Europe SE – which will replace UBS Limited
4. BofA Securities Europe SE– which will replace Merrill Lynch International

Annual Compliance Audit for Clearing Members for 2017

Like every year, this year the scheduled annual compliance audit of Athens Exchange, ATHEXClear and ATHEXCSD members for 2017 was carried out.

In accordance with the existing regulatory and legal framework, Members are obliged to maintain on a continuous basis, throughout their operation the requirements in effect at the time to obtain their above status.

In order to ascertain the degree of compliance with the above, an annual compliance audit for members for 2017 was carried out.

The key aim of the audit is to carry out a review in the following operational units of the Members:

- Required organizational and financial adequacy
- Compliance and adherence to the processes for Trading, Clearing and Risk Management
- Compliance and adherence to the special processes for Market Making
- Compliance and adherence to data security processes as well as implementation of policies of uninterrupted operation and business continuity

As well as detect any deficiencies in order to subsequently propose the required corrective measures.

The audit was carried out by executives of ATHEX, ATHEXClear and ATHEXCSD that are employed in the Member Support & Network Unit, under the overall supervision of the Regulatory Compliance Unit of the Group.

The final finding that resulted from the above annual audit is that all members comply with the requirements of the respective regulations in 2017.

Regulation (EU) 909/2014 (CSDR) – Strategic adjustment by ATHEXCSD to the new environment

Regulation (EU) 909/2014 (CSDR) "on improving securities settlement in the European Union and on central securities depositories" is part of the EU's European integration package in the field of post-trading services and the establishment of single market conditions. This Regulation affects the operation of the Greek capital market by introducing significant changes through: a) the liberalization of the Central Security Depository services being introduced at the EU level, and b) through the adoption of omnibus accounts for safekeeping securities.

Within the abovementioned framework, ATHEXCSD actively participates in the adaptation of the Greek capital market to the new environment, especially concerning the licensing of the company in accordance with the CSDR Regulation in 2019. An important development in that direction is the publication of law 4569/2018 "I) Central Securities Depositories, II) Adaptation of Greek law to the provisions of Directive (EU) 2016/2258 and other provisions, and III) other provisions of the Ministry of Finance" (Government Gazette 179/11.10.2018).

In particular, in 2018 ATHEXCSD actively participated or completed the following tasks:

- Preparatory work by ATHEXCSD in order to implement the transitional provisions of the abovementioned CSDR law on time after it is enacted.
- Implementation of compliance actions by ATHEXCSD in the context of its licensing process in accordance with the CSDR Regulation
- Review the CSDR Level 2 regulatory & technical standards concerning the implementation of measures to deal with settlement discipline in order to analyze the effects and draft / implement compliance measures for ATHEXCSD. It should be noted that the provisions in question were published in the Official Journal of the European Union on 13.09.2018, and that compliance by central securities depositories with them begins on 14.09.2020.
- Receipt and publication of all required decisions concerning the timely implementation, during November – July 2019 of the actions / tasks as specified in paragraphs 7, 8 and 9 of article 29 of law 4569/2018 (Government Gazette A' 179/11.10.2018). Implementation of these actions / tasks is an essential prerequisite to complete the required adjustments to the ATHEXCSD's framework of operation, especially as the Dematerialized Securities System (DSS) is concerned, in order to complete the application dossier of the company for receiving a license to operate a central securities depository in accordance with Regulation EE 909/2014 (CSDR) and law 4569/2018 (Government Gazette A' 179/11.10.2018). Information on the process and the specific terms applied in the relevant provisions of law 4569/2018 (article 29, par. 7, 8 and 9) are published on the website www.athexgroup.gr/Law4569, while the tables assigning securities of beneficiaries to be auctioned to members and the table of balances of securities being auction per auction day are published on the website, at www.athexgroup.gr/Law4569-ForcedSales.

Project to update DSS Account information by Operators, in accordance with Decisions 1/736/2.11.2015 (Government Gazette B' 2558/26.11.2015) & 7/759/29.6.2016 (Government Gazette B' 2130/11.07.2016) of the Board of Directors of the Hellenic Capital Market Commission and Decision 6/27.06.2016 of the Board of Directors of ATHEXCSD, in effect since 30.06.2016

In accordance with the relevant decisions of the Board of Directors of the Hellenic Capital Market Commission and ATHEXCSD, in 2018 periodic (monthly and every 4 months) audits were carried out on the correctness of the registrations in the active Investor Shares in the Dematerialized Securities System (DSS) by ATHEXCSD and corresponding provision of information to DSS Operators, in order for the relevant data maintained in DSS in accordance with the existing regulatory framework to be updated.

Progress on the tasks of this project is additionally monitored through a questionnaire to DSS Operators every 4 months (January, May and September) of each year. All relevant tasks are part of the preparation of the migration of Dematerialized Securities System (DSS) to the new environment under the CSD Regulation that will take place with the granting of the license to operate a central securities depository to ATHEXCSD in accordance with the Regulation in question.

Completing the necessary adaptations to fulfill the obligations of the companies of the Athens Exchange Group and of participants in the Greek market, especially ATHEXCSD and DSS Operators, concerning the automatic exchange of financial information in accordance with relevant legislation

The relevant tasks and projects concern:

- The agreement between Greece and the USA to apply FATCA (Foreign Account Tax Compliance Act), as incorporated into Greek law with Law 4493/2017 (Government Gazette A' 164/31.10.2017).
- Regulation 2011/16/EU as modified by Regulation 2014/107/EU, as incorporated into Greek law with Law 4170/2013 and Law 4378/2016.
- The OECD Multilateral Competent Authority Agreement ("Common Reference Standard"), as incorporated into Greek law with law 4428/2016.

Based on the above, the following reports were submitted by ATHEXCSD concerning the portfolios kept in the special account:

- June 2018 – Submission of the 1st report in implementation of the FATCA legislation, in accordance with Ministerial Circular 1094/21.05.2018 (Government Gazette B' 1891/24.05.2018) decision of the Head of AADE [Independent Public Revenue Authority].
- June 2018 – Submission of the 2nd report for 2017, in implementation of the Multilateral Agreement by the Relevant Authorities of OECD ("Common Reporting Standard") and Directive 2011/16/EU as modified by Directive 2014/107/EU, in accordance with Ministerial Circulars 1135/2017, 1137/2017, 1090/2018 & 1102/2018.

Developing the AXIAlei service

Responding to the requirement that all legal entities that carry out transactions on transferable securities starting on 3.1.2018 need to issue a Legal Entity Identifier (LEI) code, within the 1st half of 2018 in accordance with the relevant declaration by ESMA of 27.12.2017 and the Hellenic Capital Market Commission as part of the application of the MiFID II Directive and the MiFIR Regulation, ATHEXCSD successfully provided this service.

In particular, in 2018:

- More than 1,127 new LEI codes were issued by ATHEXCSD
- 1,216 LEI codes were renewed by ATHEXCSD
- 14 LEI codes were transferred from another provided to ATHEXCSD
- 8 LEI codes were transferred from ATHEXCSD to another provider

Carrying out educational activities

Aiming at the educational needs of capital market professionals and investors, as well as the support and promotion of new products through training initiatives, the Athens Exchange Group considered it appropriate to organize certain specialized seminars.

In particular, taking advantage of the fact that the Hellenic Energy Exchange was founded, as well as the strategic collaboration launched with DESFA [Hellenic Gas Transmission System Operator], educational activities were targeted especially in this new and developing sector.

More specifically, in 2018 the Athens Exchange Group carried out the following educational activities:

- Seven specialized seminars to professionals and private individuals on the energy sector, with the participation of 222 persons.
- Seminars on energy markets where executives of PPC [Public Power Company] participated.
- Two seminars with the participation of 87 persons on the Gas market.
- An intra-business seminar that was attended by 32 DESFA executives on topics related to energy markets.

In addition to the above, in collaboration with the Association of Public Limited liability companies, seminars were organized on both the new Companies' law as well as the new institution of Ombudsman on capital markets.

Finally, the Athens Exchange Group, having as its aim to provide information to a wider audience on the operation of the exchange, hosted educational visits to college and high school students from Greek and foreign institutions. In this context, 679 college and high school students visited the Exchange in 2018 and participated in specialized presentations on the operation of the institution of the Exchange and the Greek capital market.

Provision of services to the CSE

In May 2018 the migration of the DSS [Dematerialized Securities System] of our partner the Cyprus Stock Exchange (CSE) to a web environment was successfully completed, together with the start of the provision of management and hosting services on the IT infrastructure at the ATHEX Group's facilities by its executives.

The project is considered a key to the continuation of the cooperation between the two stock exchanges as it provides the possibility for further development actions and enrichment of the services provided within the framework of the Common Platform.

At the beginning of 2018, ATHEX undertook the assignment, as outsourced service provider, to provide order record keeping services on behalf of CSE, which the last is obliged to provide as a trading venue, in accordance with Regulatory Technical Standard 24 (RTS 24) which complements the European Regulation MiFIR.

The ATHEX Group agreed in 2018 to provide, as project provider, the publication implementation for CSE, as Trading Venue, of reference data on the quality of the execution of transaction which the latter is obliged to provide as Trading Venue in accordance with Regulatory Technical Standard 27 (RTS 27) which complements the European Regulation MiFIR.

New ATHEX data Reporting Services (ARM@ATHEX & APA@ATHEX)

As part of the reporting obligations of participants in organized markets that arose from MiFID II, 2018 saw the start of the commercial offering of the ARM@ATHEX and APA@ATHEX services. These new services resulted in a growing need to support clients and to continuously develop new and improved versions. In total, 11 new versions of these services were provided to clients for use in 2018.

The clients for the services are 58 for the ARM@ATHEX services and 31 for the APA@ATHEX service and are from Greece, Cyprus, Romania and the UK.

Project to reduce the cost of foreign data feed

An important project for 2018 was that of reducing the cost for purchasing foreign data feed. It is noted that this task was carried out successfully and had no negative consequences (loss of clients); this result was achieved in part by the marketing communication which emphasized the benefits to clients from that change, as well as the technical implementation which did not affect clients.

Infrastructure support and management

- The new Active-Active architecture is an important project that is being executed in the current year, and implemented by the following procurement and installation projects:
  1. Procurement and installation project of active-active data storage equipment
  2. Procurement of fiber optic and metro Ethernet telecommunication circuits
  3. Procurement of fiber optic lighting equipment (DWDM)
  4. Procurement of servers for the virtualized environment (VMWARE)
  5. Procurement and installation of intranet and ATHEXNet network equipment
- Creation of a Low Latency infrastructure for the Market Order application and attraction of National Bank as a client for proximity services both in Athens as well as in London.
- Installation of Microsoft Advanced Threat Analytics (ATA); from its operation up to know many useful conclusions on infrastructure security have resulted
- Installation of security hardened infrastructure for the new service "Roots."
- Participation in the DESFA competition for the provision of qualified remote e-signatures and the implementation of corporate workflows. The Group selected as contractor and implementation has begun with a timeframe for delivery in March 2019.
- Participation in the open competition of the Hellenic Capital Market Commission (HCMC) on the "Implementation, support and hosting of a trade reporting system TRS/TREM" to replace the existing system of the HCMC based on the Directives MiFID II / MiFIR. The Group was selected as contractor of the project, and implementation has already begun.

In 2018 important projects modernizing the technological infrastructure of the Group began being implemented. In particular, among others: Implementation of a project to construct fiber optic circuits to connect data centers of the Group in Attica, implementation of a procurement project for the lighting of the optical fiber of the type "Dark Fiber", implementation of a project to upgrade the telecommunications circuits of the Athens Exchange members in Attica, implementation of a project to design and implement a new ATHEX network, implementation of a project to design and implement a new cable infrastructure at ATHEX's data centers (main and DR site), implementation of a project to design a new ATHEX market scheduling system, migration of CSE-DSS to ATHEX's infrastructure, DSS auditing, creation of infrastructure for the Energy Exchange, DESFA, LEPS (Leveraging eID in the Private Sector).

Technical support

The organization change in 2018, with the gathering of all technical support services in one Department, has significantly helped improve the quality of the technical support services by making client (internal and external) satisfaction a priority. In particular, the following technical support projects were implemented:

- As part of the installation of the new Energy Exchange (HenEx), the necessary building space changes were carried out and relocation of user in the building, desktop infrastructure was implemented for the Energy Exchange and technical support services were provided. With the operation of the company in June 2018, technical support services are now provided on a daily basis in order for the smooth operation of the company.

- Support of the 5th General Business Continuity Test of the Group, which was successfully completed on 30.06.2018. It is noted that on 16.06.2018 the pre-test before the General Test was completed successfully. In addition, the independent readiness test that takes place on an annual basis for the SWIFT infrastructure of the Group was also completed successfully.
- Support of the DESFA [Hellenic Gas Transmission System Operator] auction platform. The Group developed and provided to DESFA new software to carry out auctions in the natural gas balancing market. As part of the implementation of the project, the department participated in the training and installation tasks and, since April 2018 provides technical support services (1st level support).
- Support the MarketOrder / InBroker platform. The group has developed and provides to members of the Exchange a suite of application to manage client orders (Order Management System), online information for markets and management of Direct Market Access (DMA) services provided to clients abroad.

PKI service

- LEPS – Leveraging eID in Private Sector

  The active participation of ATHEX as Trust Service Provide continued and was completed in the European project financed by the European Commission "LEPS - Leveraging eID in Private Sector» (www.LEPS-project.eu) (total €1.252m) in collaboration with ATOS, University of Murcia, Correos, University of the Aegean, National Technical University of Athens [NTUA] and Hellenic Post [ELTA]. The key objective of the project is the development of eIDAS electronic services (electronic IDs – eIDs and digital signatures) in the private sector for use in cross-border transactions.

  In particular, the project was officially completed on 30.11. On Monday 12 November a teleconference meeting on the final review of the project with the competent INEA authority was successfully held.

  Finally, in December 2018 and the beginning of January 2019 the logistics of the project were completed, with the delivery of the technical report and the Individual Financial Statement from ATHEX.

- Participation in the European action CEF-TC-2018-1: eID & e-Signature

  In May 2018 a proposal was submitted to the European Commission for approval of a financed project titled "eIDAS enabled i-Banking (eIB)" in collaboration with the University of the Aegean, the National Bank of Greece and the Association of Italian Banks (total size approx.. €1m), having as objective the highlight of the possible uses of electronic IDs (eIDs) and the eIDAS electronic signatures (digital signatures) technology, through the full automation of the registration process and use of bank services.

  The proposal was approved at the beginning of October 2018 and the process of finalizing the Grant Agreement followed with the competent INEA authority. At the present stage, the contract between INEA and ATHEX as well as the other partners UAEGEAN, NBG and ABI-LAB is in the process of being signed.

  It is noted that in this particular project ATHEX will have the role of Coordinator / Project Manager among the partners.

Systems development

As far as systems development is concerned, there were significant projects, among which the following:

- Improvements in corporate actions (spin-off, change in the procedure to register tax on government bond interest payments, improvements in the screens, work transfer (54.60), multi-listed Xnet securities and reinvestment, automated finalization of shareholder registry for corporate actions type 44 et al)
- Change in the calculation method for two day risk for corporate bonds
- Automated support for copying the ESMA financial products central reference database (FIRDS)
- New CSV files
- Requirements adaptation for FATCA – DAC/CRS

- Support the parameterization of pdf attributes of reports for digital signatures and storage in document management system (security, title, keywords)
- Routing registration / change to a future time
- Checking securities name during entry
- Daily update of foreign securities CFI codes
- Notification of the expiration of operator – issuer LEI codes
- Modification of investor account data (indication of exemption from tax withholding)
- Migration of the Cyprus Stock Exchange (CSE) to a web environment
- Incorporation of functionality supporting third party system corporate actions in DSS (MS Access, internal audit finding)
- Premarket support
- Test environment for supporting DSB (creation of ISIN codes for Over the Counter derivatives)
- Expansion of the current logging mechanism to a new user (pilot environment, an internal audit finding)
- Correction of problems and improvements in risk calculation for derivatives (sliding windows, calculation also on the expiration date)
- Support for member default while there are partially settled transactions by a custodian
- Automation of the securities release procedure that have been blocked as collateral by ATHEXClear, and settings for the blocking time schedule
- Handling foreign securities during titles transfer
- Support of the IEDAS (LEPS) services in AxiaWeb to register and certify investors in the system
- Support ATHEXClear's collateral valuation limit with a parallel automation of the procedure to receive credit limits from the SSP [Statistical Information System]
- Adaptation to T2 changes
- Support of the first phase of CSDR (Establishment of liens by members, printouts, CSVs, automatic transfer of simple liens, corporate actions)
- Develop the functionality to support the operation of CSD as custodian. Support the auction procedure

OASIS trading system

The key milestones in the development of the OASIS trading system was the implementation of the project Quality Assurance with the company Exactpro, development of OASIS version 5.1 which includes: a) certain corrections from version 5.0 (MiFID II); b) improvements as a result of the implementation of the Quality Assurance project in 91) and migration of CDB to Oracle version 12c & APEX version 5.1.

ATM trading system

The ATM trading system is a new system that is being developed as part of the Vineyard research project, of the Horizon 2020 research program. In 2018 the operational specifications for the new system were completed, development of CDB for the needs of ATM, development of the data feed subsystem, and development of management and monitoring tools of the new system.

Surveillance system

For the Surveillance system, the following development projects were implemented:

- Development and transfer to production of version SURV ver 2.2 by implementing the functionality determined by the requirements of RTS 27 of the MiFID II Directive.

- Develop and transfer to production of of version SURV ver 2.3 concerning the Pre-Market.
- Additional reports / screens were created for subsystems of the Surveillance System in offline and online.

Hellenic Capital Market Commission subsystem

This project category concerns the upgrade of the client applications to Windows 10, the correction – modification of reports, clarifications and explanations to client questions, and implementation of new screens in 6i forms for closing algorithms and OTC.

Risk management system

Development and transfer to production of system RISK version v.1.12 which contains changes and additions that concern EU-Wide Stress Test, Clean Back Test as well as the correction of an error on the calculation of Credit and Liquidity Stress Test regarding cash settlement at the expiration or exercise of index products.

Development and transfer to production of system RISK version v.1.13 which contains changes and additions concerning Actual Liquidity Test, correction in the contract size data of lending products. There was a problem on the calculation of position closing cost with the non-inclusion of the cost of lending products; change of user access to DSS and changes / additions to RISK MIS data.

Development of support systems

Besides the above, in 2018 significant projects began or were completed that concern the adjustment to MiFID II, websites improvement, adjustment to GDPR, development of SSP [Statistical Information System], EMIR TR [Trade Reporting], HERDS, DMS, CRM, IDM/Security, PKI-HUB, VILO, MarketOrder OMS (development and support),SPOT trading system for the Energy Exchange, MarketOrder application service (XOAS), ATHEX trading machine (Trading System), introduction of Identity Management (IDM), collocation installations, implementation of new functionality in IB lite-client, implementation of new functionality in IB lite IR, IB backend APLs and servers, upgrade of InBroker infrastructure, MarketOrder Application Server (XOAS), MarketOrder & InBroker Desktop Client, Vineyard Trading System, IB RDS web services, ORK mediator, DESFA auction platform, SPOT trading system for the Energy Market as well as the introduction of Identity Management (IDM).

Promotion initiatives

As part of the initiatives of the Athens Exchange Group to improve the promotion and promote the Greek capital market, showcase the role of the Exchange across time, expand the investor network and strengthen the contacts between listed companies and local and foreign fund managers abroad, the Athens Exchange took the following initiatives:

- In April 2018 the 1st ATHEX Mid-Cap Conference was organized in Athens. The Conference was organized with the aim of further promoting mid-cap listed companies to the investment community, increase coverage by (sell-side) brokerage analysts and improve the trading velocity of their stocks. Through the 350 one-on-one meetings that took place during the conference, the 16 participating Athens Exchange listed companies had the opportunity to present to Greek and foreign investment managers and analysts their business developments and prospects. In addition, during the conference presentations were made by market participants.
- In April 2018, the second annual Conference on Financial Illiteracy was organized under the auspices of the Athens Exchange. The Conference was co-organized by the University of Piraeus and the Professor of Finance and President of the Institute of Financial Illiteracy Nikolaos Filippas. Support of the Financial Illiteracy Conference by the Athens Exchange is part of the actions that are being implemented and concern the provision of information and training of high school and university students about financial education and the institution of the Exchange.
- In May 2018, the 1st Business Idea Competition by the Agricultural University of Athens (AUA) at the Athens Exchange on the subject “Presentation and Award of Food and Agriculture Business Plans. Support of the AUA competition by the Athens Exchange is part of the plan of actions that has as a

primary aim to properly train companies in matters of innovation and entrepreneurship and creating a collaborative environment for the promotion, strengthening and improvement of the extroversion. The business plans that completed, exploited a variety of items on which high-level innovative research is being carried out by AUA. The winning teams received cash prizes sponsored by the Athens Exchange, which supported the competition in all stages of development and presentation of the bussines plans in the teams that competed.

- In June 2018 the 7th Greek Investment Forum was organized in New York, in collaboration with the American-Hellenic Chamber of Commerce and Enterprise Greece. In the Greek delegation 23 companies listed on the Athens Exchange participated, whose representatives had the opportunity during the approximately 400 meetings that took place, to present their strategy and investment plans to institutional investors. As part of the Forum, a presentation titled “Greece back on the growth path.” Besides the Forum, the organization was combined with visits to Washington DC and Chicago where delegates met with business and state authorities and influence groups.
- In June 2018 an event was organized titled; “The value of corporate governance” with Harvard Business School Professor Mr. George Serafeim as keynote speaker. The aim of the event was to highlight the adjustments required for entrepreneurship, companies and their executives in order to achieve lasting competitiveness, both at the Greek and international level, with successful business examples and international practices as the guide. The second part of the event included an awards ceremony aimed at the development and strengthening of the capital markets to members of the Athens Exchange based on their trading activity in the cash, derivatives and bonds markets and the XNET network. At the same time, the top Exchange member analysis departments were also awarded based on the rankings in the “Greek research” category by EXTEL for 2018 as well as the top Investor Relations Departments of Athens Exchange listed companies.
- In September 2018 the 13th Annual Greek Roadshow took place in London. At the roadshow, the 33 participating Athens Exchange listed companies had the opportunity to present to the international investment community their business plans and prospects. In total, more than 620 one-on-one meetings took place between the listed companies and the 96 investors represented by 130 analysts and fund managers
- In October 2018 the 1st ATHEX Small-Cap Conference took place in Athens. This conference is an initiative of the Athens Exchange to increase the visibility of small capitalization companies to investors, and gave the opportunity to 14 companies, listed in the Main Market and the Alternative Market of the Athens Exchange, to present their business and its prospects to institutional investors, financial analysts and other market professionals.
- In October 2018, the 58th World Federation of Exchanges’ (WFE) General Assembly & Annual Meeting was organized in Greece for the first time, with the Athens Exchange as host. The WFE Annual Meeting offers a unique opportunity to leading international Exchanges and Central Counterparties, Regulators and other policy makers and international investors to interact, exchange views and play a key role on important issues facing the industry. The Annual Meeting is an important event shaping the overall policy of the capital markets across the world. The central message of this year’s meeting was the renewal of the capital markets and the key role they are called to fulfil for the uninterrupted funding of businesses, ensuring harmonized transparency rules, and their overall contribution to sustainable development as fundamental pillars of the economy.

Finally the Athens Exchange, in support of the Hellenic Fund and Asset Management Association, provided its premises in order for listed companies to make their presentations. As part of this effort, 18 listed companies presented their results, their strategy for development and prospects for growth.

Other projects

In 2018 a number of supplementary projects was implemented, with the most important of those being the following:

- Update the information mentioned on the website of the Group concerning clearing and risk management, and provide all information in English.

- Participation in the semi-annual audits of the Target 2 emergency procedure.
- Participation in the annual audit of the business continuity procedure of the Group.
- Improvements in the Clearing System in order to require the existence of LEI in the derivatives position accounts of legal persons and to cover the relevant obligation of the EMIR-TR service.
- Improve the methodology for calculating two-day risk for corporate bonds.

Besides the daily tasks of the Risk Management & Clearing Divisions that aim at the smooth functioning of the market, in 2018 a number of projects are being implemented with the aimed at: Improving the services / products provided.

Comment on the results

Fiscal year 2018 results of the Group

Turnover in 2018 for the Athens Exchange Group was €26.6m compared to €27.4m in the 2017, decreased by 3.0%. Approximately 51% of the turnover of the Group is from fees on trading, clearing and settlement of trades on the Athens Exchange.

In 2018 EBITDA was €7.4m compared to €8.0m in 2017, reduced by7.5%.

Earnings Before Interest and Taxes (EBIT) were €3.9m vs. €4.9m in 2017, reduced by 21.2%.

After deducting €981 thousand in income tax, the net after tax earnings of the Athens Exchange Group amounted to €3.027m compared to €3.076m, reduced by 1.6%. After including Other Comprehensive Income (valuation of shares), earnings amount to €1.9m compared to €2.5m in 2017, reduced by 24.0%.

Parent Company of the Athens Exchange Group

For the parent company, turnover was €13.6m vs. €14.0m, reduced by 2.8% compared to 2017, while net after tax profits were €1.8m in 2018 compared to €1.6m in 2017, increased by 11.5%.

Available-for-sale financial assets

The Company held in its portfolio 13,365,316 shares that resulted from the Piraeus Bank bond exchange. Next, through a 1:20 reverse split the number of shares became 668,265 x €6 = €4,009,590. On 31.12.2018 the share price closed at €0.84 and as a result the valuation of the Bank of Piraeus shares was €561,343.60, a loss of €1,490,231.95 compared to the valuation on 31.12.2017 which, in accordance with IFRS 9, is reported in Other Comprehensive Income (OCI).

Third party balances in ATHEXClear bank accounts

In order to comply with the corporate governance framework determined by Regulation (EU) 648/2012 of the European Parliament and Council (EMIR Regulation), the Company keeps all cash collateral that are being managed by the Company and concern the cash market and the derivatives market, as well as its own cash balances, in an account it maintains at the Bank of Greece (BoG) as a direct participant over the internet to the TARGET2-GR Express Transfer of Capital and Settlement System in real time (TARGET2-GR).

Therefore its own cash balance and the balances of third parties (margins) are deposited in the same account that ATHEXClear maintains at the Bank of Greece, and as a result a separation of the assets is necessary in order for the collateral that ATHEXClear collects to be shown separately in the current assets of 31.12.2018. In the Statement of Financial Position of 31.12.2018, they are reported as equal amounts in both current assets and short term liabilities as "third party balances at the bank account of the company" and concern exclusively the margins in the derivatives market that were deposited in the bank account maintained by ATHEXClear at the BoG on 31.12.2018.

On 31.12.2018 at the BoG bank account cash market margins of €112.0m and derivatives market margins of €39.8m had been deposited.

Share Capital

The Company is listed on Athens Exchange, and its shares are traded in the ATHEX cash market, in the Main Market segment. The shares of the Company are common registered, with a voting right.

With the decision of the 1st Repetitive General Meeting of 13.06.2018 to a) return €0.15 per share with an equal reduction in the stock's par value and b) cancel 251,000 shares in treasury stock, the share capital became €41,640,120.00 divided into 60,348,000 shares with a par value of €0.69 each.

The Equity of the Group on 31.12.2018 was €110.7m and the Company's €94.8m.

Treasury Stock

At the 14th Annual General Meeting on 20.05.2015, shareholders approved a share buyback program to purchase up to 10% of the share capital at a price range of €1.50 to €7.00 over two years (May 2015 – May 2017) with the intention of cancelling at least 95% of shares thus purchased (the remaining 5% may be distributed to personnel).

Share buybacks began on 09.02.2016 and up until the end of the program on 20.04.2017 5,020,563 shares (7.68% of the share capital) had been purchased, at an average price of €4.63 at a total cost of €23,244,794. Out of the abovementioned number of shares, 95% corresponding to 4,769,563 shares were cancelled by the decision of the 1st Repetitive General Meeting of shareholders on 09.06.2017.

Next, by decision of the 1st Repetitive General Meeting of 13.06.2018 the 251,000 shares in treasury stock that remained were cancelled, and as a result on 31.12.2018 the Company does not possess any treasury stock.

Dividend policy

The Annual General Meeting of Hellenic Exchanges-Athens Stock Exchange shareholders on 30.05.2018 decided to distribute dividend amounting to €3,029,950 or €0.05 per share to shareholders. The ex-date of the right to the dividend was on 05.06.2018, and the dividend was paid on 12.06.2018. The dividend per share was increased to €0.050208 due to the existence of treasury stock.

The Repetitive General Meeting of 13.6.2018 approved the proposal of the BoD to return capital amounting to €9,089,850 or €0.15 per share. The ex-date was on 06.08.2018 and the capital return was paid on 10.08.2018. The capital return per share was increased to €0.1506239 due to the existence of treasury stock.

Tax audit of the Company for fiscal years 2008, 2009 and 2010

On 11.7.2016 the Company was notified about the acts of temporary corrective tax determination and audit findings note by the Large Corporation Audit Center (KEMEP). This particular tax audit was carried out for tax years 2008, 2009 and 2010 in accordance with audit order 760/4/1118/22.12.2015. In total, the audit resulted in taxes and additional taxes for submitting an incorrect tax declaration amounting to €1,689 thousand, out of which €603 thousand are additional taxes.

On 29.7.2016 the Company submitted an opinion report – memo to KEMEP, expressing its opposing view to the abovementioned Note. In its reply, KEMEP reduced the accounting differences tax by €127 thousand, reducing the total amount to €1,562 thousand.

On 30.9.2016, within the time limits of the law, the Company filed an administrative appeal in accordance with article 63 of Law 4174/2013 at the Dispute Settlement Directorate (DED) of the General Secretariat of Public Revenue (GGDE), against the findings of the tax audit, and at the same time paid 100% of the amount due i.e. €1,562 thousand, which is shown in other claims in the statement of financial position of 31.12.2017, in order to avoid the accumulation, calculation and assessment of interest for the duration of the suspension of the sum due (article 53 §1 of Law 4174/2013).

The DED finding, which was received on 15.2.2017, reduces the total amount by €579 thousand, to €983 thousand. This difference has already been offset with an equal amount of ATHEX tax obligations by the appropriate tax office. The Company has further appealed (16.03.2017) to the Administrative Courts in order to reduce the tax and penalties assessed by the tax audit. The Company received summons and appeared in the

Administrative Court of Appeal to adjudicate the case on 6.3.2018. The decision is expected within the next few months.

Related party transactions

Transactions that concern payroll costs for 14 executives and the executive members of the BoD for 2018 amount to €1,490 thousand for the Group and €1,015 thousand for the Company. Besides these transactions, there are no other related party transactions, as defined by IAS 24, which could materially affect the financial position or the performance of the Group during the period in question. There is no (credit or debit) balance from these transactions on 31.12.2018. For the other related party transactions, see note 5.42.

Branch Office

The Group through its subsidiary "HELLENIC CENTRAL SECURITIES DEPOSITORY" – ATHEXCSD has a branch office in Thessaloniki, at 16-18 Katouni St.

Non-Financial Reporting

Business model

Listing: In order to grow, dynamic companies of all sizes chose capital markets to raise capital. The Athens Exchange supports and facilitates the process of issuing stocks and bonds for financing companies using the tools that it develops, ensuring the tradability of the securities issued under internationally standardized rules.

Trading: The Athens Exchange operates the infrastructure necessary so that the organized markets for stocks, bonds and derivatives – on other securities or indices (such as stocks, exchange indices et al.) – ensure the level of transparency and effectiveness legislated in Europe. The Athens Exchange also operates the Alternative Market (EN.A) for smaller, dynamic companies.

Clearing: Clearing is the process followed that ensures that transactions entered into will be concluded with their settlement by covering counterparty risk. The Clearing House of the Group, ATHEXClear, provides the clearing platform and operates as central counterparty (CCP): as buyer to sellers, and seller to buyers, in order to minimize counterparty risk.

Settlement: Settlement is the process of exchanging securities and cash between buyers and sellers in order to conclude the transactions they have entered into. The recording of the various credit and debit entries into the investor accounts on the Dematerialized Securities System (DSS) by licensed Investment Services Firms and banks (DSS Operators) takes place at this stage. The ATHEXCSD subsidiary provides the relevant service following international rules and practices.

Registry: After settlement is completed, securities are safely kept by DSS Operators in the investor accounts at DSS, where companies with listed securities (issuers) can find the owners of the securities, and owners of securities can find their portfolios.

The ATHEXCSD subsidiary provides issuers with securities services for managing corporate actions (such as rights issues et al.) and payment distributions (such as dividends and interest).

Market data: Private and professional investors make investment decisions based on market information and data. The Athens Exchange provides information o the cash, bond and derivatives market, such as real-time data, historical data, index information et al.

Indices: In collaboration with FTSE, the Athens Exchange maintains and provides indices that track the Greek capital market and sectors; it also maintains and provides the General Index with similar rules. Indices in turn are an underlying security in other traded products such as ETFs and derivatives (futures & options).

Technology: Information Technology systems and infrastructure are the foundations of the Group for all of the services it provides. The Group develops and supports trading, clearing, settlement and registry systems as well as the necessary network infrastructure, with a high degree of availability, and also provides the infrastructure for auxiliary services to Investment Services Firms and banks such as collocation.

Sustainable and ethical business

The Company follows commercial, organizational and operational practices in accordance with the rules, laws and regulations, as dictated by national and European regulatory authorities, and ensures that it receives all relevant permits for its products, services and operations.

In the framework of its sustainable development, by monitoring all developments in the European and international market, the Company ensures that the services it provides meet the current needs of investors and all participants in the business sector that it is active in.

The Company has a zero tolerance policy in matters of fraud, corruption and market abuse, applies appropriate measures to monitor, prevent and deal with such incidents in all its activities.

We support as an active member the efforts of the Greek network for Corporate Social Responsibility which aims to promote Corporate Responsibility both to the business world and to society as a whole and to strike a balance between generating profits and sustainable development.

Operation of the Group

The Group is constantly striving to improve all aspects of its operations based on international standards. In particular:

Standard		ATHEX	ATHEXCSD	ATHEXClear
Business Continuity	ISO 22301	✓	✓	✓
International Standard on Assurance Engagements	ISAE3402	*The certification process is in progress, and the certificate is expected in 2019*		

Employees and society

We promote and support a program providing information educating high school and university students, as well as market professionals, in order to improve knowledge about capital markets. As part of this effort, the Company systematically participates in internship programs for university students.

The Company ensures that there is a safe work environment in accordance with national and European laws and regulations and also ensures that personnel health, safety and welfare issues are effectively managed. In this context, the Company facilitates and encourages in every possible way access to its premises for employees and visitors with disabilities.

The Company offers a work environment of equal opportunities to all staff, respecting the rights deriving from the legislation. In addition, the Company takes care of employees' work issues and continuously invests in their professional education and development.

In order to create a work environment and conditions that help optimize employee productivity and by extension the sustainability of the Company, the Company encourages the exchange of ideas, opinions and information among employees, protects their personal and sensitive data, does not tolerate and takes the necessary measures to identify and deal with malicious or abusive intimidating conduct and harassment.

We try to alleviate poverty by assisting the work of volunteer organizations that support our fellow human beings.

Indicative indices in 2018	Group
Employees	
Number of employees (year-end)	227
% of employees with full time employment	100%
Average age of the full time employees	46 years
Women employees (% of total)	39%
Women employees in senior management positions (%)	15%
Voluntary turnover (%)	1.3%
Involuntary turnover (%)	5.4%
Health - insurance	
Days of absence due to illness per employee	3.7
Average cost of health insurance per employee	€1,670
Average contribution to private pension fund per employee	€604
Education – internships	
Education – training (hours per employee)	30
Funds available for training per employee	€625
Number of students that did their internships	30

Environment

We continue our efforts to protect the environment through daily recycling actions, and through the adoption of simple and practical rules of operating the building in order to save energy.

Indicative indices in 2018	Group
Environment	
Electricity consumption (m KWh) (1)	4.48
Electricity consumption (% of total energy consumption) (1)	96%
Electricity from renewable energy sources (% of total) (1)	0%
Scope 1 emissions (tonnes of $C0_2$ equivalent) (1)	180,5
Scope 2 emissions (tonnes of $C0_2$ equivalent) (1)	4.211,2
Recycled paper / batteries (kg)	16,550
Recycled paper / batteries (kg)	42

1. *Includes energy consumption for the needs of the Group. Does not include energy consumption for the Colocation service offered by the Group, as this cost is re-invoiced to the clients of this service.*

Prospects for 2019

The expected improvement of the investment climate will provide opportunities for capital raisings through the exchange. For 2019 new company listings and rights issues are planned, which will create positive feedback for investor interest. In this context, conditions will be particularly conducive for privatizations through the Exchange. In turn, such a development would further improve the positive climate for the capital market.

Even though the Greek capital market managed during the crisis to retain the interest of the international investment community, it is estimated that the restructuring of the business landscape through potential mergers and acquisitions, improvements in the management of Non-Performing Loans (NPLs), privatizations, Greece's credit upgrade and the issuance of government bonds are expected to further stimulate investor interest, provided that the focus remains on policies that improve the economic climate.

The prospects of the Group and the Company are also shaped by the regulatory changes that are taking place in Europe, and by the focus of the European Commission on the potential to finance Small and Medium Enterprises through capital markets as a consequence of the continuing deleveraging of the banking system and overall developments in the macroeconomic environment internationally.

In these conditions, the Company tries to contain its operating costs, maintain the smooth functioning of its markets, provide value added services, and utilize its infrastructure by adding new products and services in order to effectively fulfill its role of transferring investment resources to the productive backbone of Greece.

The excellent organization of the Group, the reliable operation of the capital market, the continuous investment in modern equipment and processes, the absence of loan liabilities, the recognition of its reliability by internationally recognized rating agencies, as well as the liquidity that it possesses, guarantee its survival in the long term, with significant benefits for shareholders.

Turnover – risks and uncertainties

Besides the fees from trading that takes place in the ATHEX markets and which are collected through the Members, important revenue streams for the Athens Exchange Group are also fees from orders and Member terminals, revenue from Member and Operator subscriptions, revenue from subscriptions and rights issues of listed companies, revenue from data vendors, revenue from IT support and services, educational services etc.

The revenue of the Athens Exchange Group depends, to a large extent, on factors over which it has no influence, since they are connected with developments in the Greek capital market, which in turn are affected by a series of factors such as, the key financial data of listed companies, the fundamental macroeconomic data of the Greek economy as well as developments in international capital markets.

Contrary to revenues, which cannot be controlled by the companies of the Group, on the cost side concerted efforts are being made to reduce them, in order to improve the financial results of the Group even under adverse market conditions.

The economic crisis in the Greek economy in recent years has increased the risks for foreign and local investors resulting in a significant reduction in both trading activity on the exchange, as well as in corporate actions by listed companies.

Following the completion of the third memorandum and the gradual exit to the bond markets, some rays of optimism have appeared, which up to now have not been transformed into investor interest that could positively affect trading activity and stimulated listed companies into carrying out corporate actions.

Risk Management

General – Risk management environment

A major consideration of the Athens Exchange Group is the management of risk that arises from its business activities.

Athens Exchange Clearing House (ATHEXClear) belongs to the Group; it operates as a central counterparty (CCP) in the clearing of cash and derivatives products, and as such is obliged to satisfy the strict requirements of the EMIR regulatory framework concerning risk management, under which it has been licensed since 2015. Even though risk management at the Group concerns all companies and risk categories, it is recognized that because of its role in the market, ATHEXClear faces and must manage the most significant risk.

The internal and external legal and regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, the Regulation on the Clearing of Transactions on Derivatives and Regulation (EU) 648/2012 of the European Parliament and Council of July 4th 2012 for OTC derivatives, central counterparties, and trade repositories, known as EMIR (European Market Infrastructure Regulation).

Risk Strategy and Risk Management

In accordance with the strategy of the Group, the risk tolerance level is defined in order to correspond with ATHEXClear's capital adequacy, satisfy the needs of the market, limit costs for participants, maximize the exploitation of business opportunities but also ensure market security and compliance with regulatory requirements.

Organizational structure

Besides the comprehensive measures for ensuring the smooth operation of the systems of the Group, each organizational unit of the Group is responsible for monitoring and managing possible risks in such a way so as to react quickly and effectively in case risk events arise.

Continuing the effort of previous years, in 2018 efforts are made to strength the operation of risk management by ATHEXClear, in order to remain aligned with the EMIR Regulation and to follow international good practices.

In particular, as far as ATHEXClear is concerned, the organizational structure that supports risk management includes the following units:

- *Board of Directors*, which has the final responsibility and accountability regarding the management of the risk management operation of the company. In particular, the Board of Directors defines, determines and documents the appropriate level of risk tolerance and ability of the company to assume risk. In addition, the BoD and senior management ensure that the policies, processes and audits of the company are consistent with the risk tolerance level and the ability of the company to assume risk, and examine ways through which the company recognizes, reports, monitors and manages risks.
- *Risk Committee*, which advises the Board of Directors on matters of risk management.
- *Investments Committee*, which decides on the determination of limits and monitors liquidity risk, determines policies and standards for the investment strategy, financing principles, liquidity management, interest rate risk and management.
- *Risk Management Department*, of the Risk Management & Clearing Division of ATHEXClear, which is sufficiently independent from other departments of the Company, and whose main duty is the comprehensive approach to risks that ATHEXClear faces, in order to recognize them, calculate them and finally manage them. The Risk Management Department possesses the required jurisdiction, the necessary means, know-how and access to all relevant information.
- *Chief Risk Officer*, heading the Risk Management Department, who reports to the Board of Directors on matters of risk management through the Chairman of the Risk Committee, and implements the risk management framework through the policies and procedures that the Board of Directors enacts.
- *Organizational Units* which are responsible for recognizing and managing risks within their scope and participate in overall risk management at the Group.

Risk categories

The Group ensures that it deals with all risks, internal or external, present or future, and especially those that have been recognized as being significant. It is recognized that each service provided by the Group can expose it to any combination of the risks mentioned below.

The usual risks to which, due to the nature of its activities, the Group may be exposed to are:

Financial Risk

- Counterparty risk (credit risk from the default of the clearing obligations by one or more clearing member counterparties)
- Market risk (changes in exchange rates, interest rates, market prices, commodities and volatility), mainly as a result of the appearance of counterparty risk
- Credit risk (mainly from the investment of own assets)
- Liquidity risk (mainly cash flows risk), mainly as a result of the appearance of counterparty risk

Operating Risk

Risk due to a lack or failure of internal procedures and systems, by human factor or external events, including legal risk. Risk corresponding to the security of the IT systems, as in the majority of companies, is now becoming very important, and appropriate measures to contain it are being taken.

Business Risk

Risk due to new competitors, drop in transaction activity, deterioration of local and international economic conditions etc.

Description of categories and main risk factors

Market risk

The Group is exposed to limited market risks in its activities. Potential losses from market risk may arise if there is a clearing member default (counterparty risk), since ATHEXClear is required to transact to cover the portfolios of the defaulted member. In any case, the Group monitors the potential exposure that may lead to market risk and calculates potential funds that it may need to hold against market risk in accordance with the methodology for calculating capital requirements that it applies.

Foreign exchange risk: This risk does not materially affect the operation of the Group, given that transactions with clients & suppliers in foreign currency are limited.

Counterparty and Credit risk

The Group's credit counterparty risk mainly concerns transactions in the cash and derivatives markets, in which ATHEXClear operates as Central Counterparty.

The Hellenic Capital Market Commission, with decisions 5, 6 and 7/556/8.7.2010 granted to ATHEXClear a license to manage and operate systems to clear trades on dematerialized securities (Securities System) and derivatives products (Derivatives System). In this capacity, ATHEXClear assumes the risk that Clearing Members default on their obligations to clear and settle trades, as described in the Rulebooks (credit counterparty risk). In addition, as of 22 January 2015 has been licensed as a Central Counterparty under the EMIR regulation, and has a very strict framework for managing risk.

ATHEXClear has enacted and is implementing a number of mechanisms and financial assets to cover risk, and is responsible for the smooth operation of the system in general, in conjunction with the scope and scale of trades whose clearing it has undertaken. The mechanisms that ATHEXClear applies are described in the "Regulation of Clearing of Transferable Securities Transactions in Book Entry Form," in the "Regulation on the Clearing of Transactions on Derivatives," as well as the relevant decisions of the ATHEXClear BoD.

In order to obtain the status of Clearing Member, the Intermediary or Bank must conform to the minimum specific financial and operational adequacy requirements, as specified in the Clearing Rulebooks; these requirements must be continuously fulfilled during the time the Member is in operation.

Both for the cash market, as well as for the derivatives market, ATHEXClear clears trades assuming the role of Central Counterparty. In order to cover the risk against its clearing members, ATHEXClear monitors and calculates on a daily basis (end-of-day but also during the day in almost real time) the margin for each clearing account of the Clearing Members, and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities.

In addition, it manages the Clearing Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. Based on the margins that have been blocked, the credit limits allocated to members are continuously reviewed, fulfillment of which is monitored in real time during the trading session. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in accordance with the provisions of the Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR, that is the absorption of losses beyond the margins in case of a default by at least two (2) groups of clearing members against which ATHEXClear has the greatest loss from the close-out of their positions in each market (cash, derivatives) separately, under extreme market conditions.

The risk management models and the parameters used are examined as to their effectiveness on a daily basis and under extreme but possible scenarios (Margin/Haircut Back-Testing, Default Fund Coverage under Stress), and are validated on an annual basis by an external, independent specialized consultant.

Besides the counterparty credit risk that ATHEXClear faces, the Group faces credit risk from the investment of its own assets. As part of its Investment Policy, specific principles are defined for investing cash assets. Specifically for ATHEXClear, asset placements are as a rule made at the Bank of Greece, a fact that minimizes its risk exposure.

At the other companies of the Group, short term asset placements not exceeding three months take place at Greek Systemic Banks, in accordance with the Investments Policy set by the Strategic Investments Committee of the ATHEX Group.

The ratings of the Greek Systemic Banks by an International Rating Agency are shown below:

BANK RATING VALUES

			STANDARD & POOR' S				
			Outlook	Long Term Local Issuer Credit	Short Term Local Issuer Credit	Long Term Foreign Issuer Credit	Short Term Foreign Issuer Credit
ALPHA BANK AE	ALPHA GA Equity	GR	STABLE	B-	B	B-	B
EUROBANK ERGASIAS SA	EUROB GA Equity	GR	STABLE	B-	B	B-	B
NATIONAL BANK OF GREECE	ETE GA Equity	GR	STABLE	B-	B	B-	B
PIRAEUS BANK S.A	TPEIR GA Equity	GR	STABLE	B-	B	B-	B
BANK OF GREECE	TELL GA Equity	GR	#N/A	NR	NR	NR	NR
HSBC BANK PLC	MID LN Equity	GB	STABLE	A	A-1	A	A-1

Out of total cash and cash equivalents of the Group amounting to €74.6m, approximately €45m is deposited in Greek systemic banks, and the remaining approximately €29.6m at the Bank of Greece.

Liquidity Risk

Liquidity risk as a whole for the Group is maintained at low levels by maintaining adequate cash.

The main liquidity risk for the Group mainly concerns transactions in the cash market and the derivatives market in which ATHEXClear operates as Central Counterparty.

In particular for ATHEXClear, the aim is to maintain an adequate liquidity level in order to ensure that it is in a position to fulfill its obligations concerning payments or settlement in all currencies that are payable, at the end of each day and / or, if required, on an intraday basis. The estimation of the size of the obligations of ATHEXClear is done both based on its business plan, as well as based on possible, but unforeseen, events.

ATHEXClear’s liquidity is monitored based on the criteria imposed by EMIR. On a daily basis, and under extreme but possible market scenaria, it is examined whether cash required will be sufficient, following the default by two (2) groups of clearing members to which ATHEXClear has the greatest demand for liquidity to close-out their positions separately for each market (equities, derivatives). In addition, the overall liquidity needs of ATHEXClear are monitored on a daily basis using liquidity gap analysis.

Operating risk

The Group does not seek to assume operating risk, but accepts that operating risk may arise as a result from system, internal procedure or human failure. In particular, it is recognized that operating risk may arise among others because of: outsourcing, surveillance and regulatory non-compliance, business continuity failure, risks from IT systems, information security and project implementation.

Operating risk is maintained at acceptable levels, through a combination of good corporate governance and risk management, robust systems and audits and tolerance structures.

In 2018 there were no cases of interruptions in clearing, settlement and registration at the Group due to failure or unavailability of the IT systems or to human error. Two – limited in duration – cases of trading systems non-availability were recorded due to technical problems, which were subsequently identified and fixed. There were no major damages or monetary demands due to litigation (legal and court expenses) or due to non-compliance with the supervisory framework and the contractual obligations of the Group. In addition no losses due to external events were faced.

Measures to reduce operating risk

The Group recognizes the need to determine, estimate, monitor and reduce operating risk that is included in its operations and activities, as well as the need to maintain adequate capital, in order to manage this particular type of risk.

In particular for ATHEXClear, in accordance with the EMIR Regulation, the capital requirement for operating risk is calculated on an annual basis, using the Basic Indicator Approach (BIA); in addition, a framework for the systematic monitoring operating risk has been implemented.

The most important measures for reducing operating risk are the implementation of a business continuity plan for all the critical services of the Group, the taking out of insurance policies, as well as measures for ensuring compliance to new regulations. In particular, ATHEXClear follows a specific methodology for managing operating risk, in accordance with which it carries out on a regular basis an RCSA[1] in order to evaluate and categorize risk, update the loss data base[2], create regular reports and plan actions to improve risk management.

Business continuity plan

The Group has processed and put into operation an appropriate infrastructure and a disaster recovery plan, which includes:

- *Operation of a Disaster Recovery Site:* The Group maintains a disaster recovery site for its IT systems. In addition, the Group has received the ISO-22301 business continuity certification.
- *Formation of crisis management teams and emergency incident management:* The purpose of these teams is to maintain continuity in the provision of trading services in case of an unforeseen event. They have been assigned specific responsibilities and specially trained Group executives have been assigned to them.
- *Existence of back up IT systems:* The IT systems of the Group are installed and operate in the data center at the headquarters of the Group. The data center consists of two, independent as to location, supporting infrastructure and technological services provided, individually mirrored data centers, in order to provide redundancy and high availability, ensuring continuous systems operation.

Insurance contracts

Operating risks which the Group is not able to or does not wish to assume are transferred to insurance companies. Management of insurance contracts takes place centrally for the whole Group in order to obtain better services and more advantageous terms. In particular, coverage concerns among others third party civil liability and professional liability (DFL/PI) as well as civil liability of BoD members and executives (D&O). There are also insurance contracts covering fire and other risk for the buildings and the work and accounting equipment of the Group.

[1] Risk Control Self-Assessment (RCSA): at regular intervals ATHEXClear organizes workshops for categorizing risk based on the degree of risk exposure at the procedures level and determining Key Risk Indicators (KRIs).

[2] Loss Database: the database is updated on a daily basis with operations risk events independent of the size of the damage.

Regulatory compliance

A Regulatory Compliance unit has been set up, having as its key objectives to ensure compliance with the legal and regulatory framework, regulations and policies, measuring and minimizing the risk of regulatory compliance and addressing the consequences of non-compliance with the legal and regulatory framework; the unit operates independently of other departments of the company with clear and separate reporting lines from those of other company activities.

The main responsibilities of the unit are to:

- Monitor changes in the regulatory and surveillance framework and inform the BoD, the Audit Committee and staff.
- Conduct gap analysis between the existing and future condition brought about by regulatory and surveillance changes.
- Monitor the compliance of the company with the legal and regulatory framework.
- Handle requests related to compliance matters.
- Measure and monitor compliance risk.

In particular for ATHEXClear, policies were implemented concerning conflict of interest, outsourcing, managing complaints by clearing members, remuneration of staff, executives and members of the BoD and management of its archives, in accordance with the requirements of the EMIR Regulation.

Business risk

The Group recognizes that it depends on macroeconomic developments and is affected by external factors such as changes in the competitive capital markets environment, changes in the international and domestic economic environment, legal and regulatory developments, changes in taxation policy and in technology etc. Such events may impact the growth and sustainability of the Group, causing a reduction in trading activity, a drop in expected profits, inability to liquidate and / or asset impairment etc.

In this context, the Group continually and systematically monitors international developments and adjusts to the environment that is taking shape.

In particular, in accordance with the EMIR Regulation, the capital requirements for business risk for ATHEXClear are calculated on an annual basis.

The Group is in the process of reviewing the framework for evaluating, categorizing and managing business risk by utilizing the existing model and the relevant experience at ATHEXClear.

Internal Audit and Risk Management

A primary concern for the Company is the development and continuous improvement and upgrade of the Internal Audit System, which covers all of the recorded audit mechanisms and processes that cover the whole spectrum of daily operations and processes of the Company.

In particular, as regards the financial operation of the Company, a system of safeguards is in place that prevents or detects significant errors in time in order to ensure the reliability of the financial statements, the effectiveness and efficiency of operations and compliance with the rules and regulations. Based on specific significance criteria (quantitative and qualitative), important accounts are identified, procedures are recorded, responsibilities and policies are assigned and checkpoints are designed and are applied on a continuous basis by management and staff.

The Board of Directors has the ultimate responsibility to determine the Internal Audit System of the Company, as well as το monitor and evaluate its effectiveness and adequacy.

Responsible for auditing the observance of the Internal Audit System: a) the Audit Committee and b) the Internal Audit Division.

The **Audit Committee** of the Company has been set up by decision of the Board of Directors of the Company and operates based on the Standards for the Professional Application of Internal Audit of the Institute of Internal

Auditors, decision 5/204/14.11.2000 of the Hellenic Capital Market Commission, Law 3016/2002 on corporate governance, Regulation (EU) 537/2014, the provisions of Law 4449/2017, as well as the indications, clarifications and recommendations of the Hellenic Capital market Commission as stated in its letter (protocol no 1302/28.04.2017).

The main purpose of the Audit Committee is to assist the Board of Directors in the supervision of the quality, adequacy and effectiveness of the internal audit and risk management system, as well as the quality of the work effectiveness of the Company and the subsidiaries that are included in the consolidation.

The **Internal Audit Division** operates in the manner prescribed by the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors (IIA), decision 5/204/14.11.2000 of the Hellenic Capital Market Commission and Law 3016/2002 on corporate governance. Organizationally it reports to the Chief Operating Officer of the Company and operationally to the Board of Directors, through the Audit Committee which supervises it. The above also holds for the subsidiaries of the Athens Exchange Group.

The main responsibility of the Internal Audit Division is to express an opinion on the compliance or non-compliance of the internal processes of each audited area, as well as the application of the safeguards that have been adopted by Management, in order to prevent and avoid risk.

Management of the Clearing Fund

Cash market

Athens Exchange Clearing House S.A. (ATHEXClear) manages the Clearing Fund in order to protect the System from credit risk of the Clearing Members that arise from the clearing of transactions.

In the Clearing Fund Clearing Members contribute exclusively in cash. ATHEXClear monitors and calculates, on a daily basis as well as during the day, the risk that Clearing Members will renege on their obligations, and blocks the corresponding guarantees in cash and/or letters of guarantee. Based on the guarantees that have been blocked, the credit limits of the members are reevaluated on a daily basis; maintaining the limits takes place in real time during market hours. The minimum size of the Clearing Fund is recalculated at least every month, in accordance with the provisions of the Rulebook, so that its size is sufficient at a minimum to cover at any time the loss, under any extreme market conditions that may arise in case the Clearing Member in which the system has the greatest exposure is overdue.

The participation of each Clearing Member in the Clearing Fund is determined based on its Account in it. The Account consists of all of the contributions by the Clearing member that have been paid into the Fund in order to form it, and is increased by any proceeds resulting from the management and investment of the assets of the Fund, as well as by the cost of managing risk and margins, as determined by ATHEXClear procedures. Revenues and expenses are distributed on a pro rata basis to each Clearing Member account in the Clearing Fund, in relation to the size of the Account balance.

The new size of the Clearing Fund is €8,240,252.00 for the period from 01.03.2019 to 31.03.2019.

Derivatives market

The BoD of ATHEXClear at meeting number 109/17.11.2014 approved the creation of a set of risk management policies and methodologies as a result of the clearing model changes in the derivatives market, the Regulation on the Clearing of Transactions on Derivatives, as well as due to the adjustments to the requirements of the EMIR Regulation.

In accordance with the new Regulation on the Clearing of Transactions on Derivatives and in particular Part 6 of Section II, a Clearing Fund for the Derivatives Market is set up; the size of the Fund for the time period from 01.03.2019 to 31.03.2019 is €7,591,490.00. Calculation takes place on a monthly basis.

Management of the Clearing Fund in the Derivatives Market does not differ from the Clearing Fund in the cash market (see above).

Hellenic Energy Exchange (HEnEx)

The "Hellenic Energy Exchange" (HenEx) has began operating. It is one of the core pillars of the target-model of the European Union, with the aim of creating a single European energy market.

As mentioned in the information note of the Ministry of the Environment, the Energy Exchange is a prerequisite to the restructuring of the wholesale electricity market, to the benefit of market participants and end-consumers, as it aims to:

- Couple the Greek market to other European markets.
- Increase competition and transparency, which will have a direct effect in reducing energy costs and providing better prices to households and businesses.
- Ensure the safety of energy supply, diversification of energy sources in the energy mix, as well as further increase the participation of renewable energy sources (RES). Law 4512/2018 amends law 4425/2016 on the restructuring of the Greek electricity market, implementing European Regulations and Directives in order to complete the single European energy market, the so-called Target Model.

In 2019 the Energy Exchange is expected to begin operating with the start of the four new energy markets which will replace the mandatory pool model that is in effect today. This is foreseen by the "road map" for implementing the Target Model that has been set up by the responsible bodies, which received the "green light" by the representatives of the Institutions at the recent negotiations.

On 18.06.2018 decision 9828/18-18.06.2018 by the Deputy Chief of the Athens Central Region (ΑΔΑ 62Α27Λ7-ΤΣΒ) was registered at the General Electronic Commercial Registry (GEMI) (registration number 1405724), which:

- Provides a license to establish the Societe Anonyme with the name "Hellenic Energy Exchange" ("HenEx"), to which the spun-off sector by "Operator of Electricity Market" ("LAGIE"), GEMI Registration number 44658007000 was contributed, in accordance with the provisions of codified law 2190/1920, law 2166/93 (in deviation of case e' of par. 1 of article 1), article 117B of law 4001/2011 as added by article 96 of law 4512/2018 and the Report Ascertaining the Book Value of the assets of the sector being spun-off, drafted by the Certified Auditor-Accountant NIKOLAOS TSARDOULIAS.
- Approves the Articles of Association of the company, as drafted by notary act number 4874/15.06.2018 by the notary of Athens Eleni Aristeidis Dragiou.

The Tax Registration Number of the Hellenic Energy Exchange is 801001623 and its offices are on 110 Athinon Ave, 10442 Athens, and are leased from ATHEXCSD.

The share capital of HenEx, in the amount of €5,000,000 divided into 50,000 shares of €100 each was paid in full by 9.7.2018.

The Company (Athens Exchange – ATHEX) paid up its participation in the amount of €1,550,000 on 27.6.2018, thus obtaining 31% of the share capital.

The shareholders with their stakes in the share capital of HenEx on 31.12.2018 are shown below:

	Value (€)	Shares	Stake
LAGIE [Operator of Electricity Market]	1,100,000	11,000	22%
ADMIE [Independent Power Transmission Operator – IPTO]	1,000,000	10,000	20%
DESFA [Hellenic Gas Transmission System Operator]	350,000	3,500	7%
Athens Exchange	1,050,000	10,500	21%
European Bank for Reconstruction and Development (EBRD)	1,000,000	10,000	20%
Cyprus Stock Exchange *	500,000	5,000	10%
Total	**5,000,000**	**50,000**	**100%**

* On 18.12.2018, ATHEX transferred 10% of the share capital (out of the 31% it held when the Company was founded), i.e. 5,000 shares with a par value of €500,000, to the Cyprus Stock Exchange.

Hellenic Corporate Governance Council (HCGC)

The Hellenic Corporate Governance Council (HCGC) operates as a Non-Profit Organization, is an entity specializing in the spread of corporate governance principles and strives to develop a culture of good governance in the Greek economy and society. The overall action plan includes: the formation of positions on the regulatory framework, the submission of proposals, participation in consultations and working groups, the organization of educational and information activities, the monitoring and evaluation of corporate governance practices and implementation of corporate governance codes, the provision of assistance tools and the scoring of the performance of Greek enterprises.

Having completed its first cycle of operation, HCGC in 2018 has entered into a phase of participatory and administrative expansion, further increasing its work and strengthening its role. Within this context, besides the founding members (ATHEX and SEV – Hellenic Federation of Enterprises), the Hellenic Bank Association (HBA) has joined as a regular member. In the same context, a new Management Board has been elected, the other bodies of HCGC have been renewed, and a Working Committee has been formed, with the responsibility to implement the HCGC action plan, organize individual actions (conferences, events, promotional activities), find donors and other sources of financing, as well as fulfill and implement HCGC's specific objectives.

The activities of HCGC for 2018 include the continuation of the provision of consulting services to the Hellenic Corporation of Assets and Participations (HCAP) in matters of Corporate Governance. In particular, HCGC the dividend policy for HCAP, a project that was assigned by "Expertise France" (a French state international technical assistance organization) as part of the technical assistance being provided to the Greek government. In addition, HCGC participates in the Perakis Commission to reform corporate law 2190/1920 (law 4548/2018) and in the work group of the Hellenic Capital Market Commission to amend law 3016/2002 on corporate governance.

CORPORATE GOVERNANCE STATEMENT

The present Corporate Governance Statement is drafted in accordance with articles 152 & 153 of law 4548/2018 and contains the information that the abovementioned provisions specify as of 31.12.2018.

The company, being listed on the Athens Exchange, fully complies with the provisions of the law – the provisions of which supersede in any case – on corporate governance for listed companies that are included in laws 4548/2018, 3016/2002, 4449/2017 as they apply, as well as decision 5/204/14.11.2000 of the BoD of the Hellenic Capital Market Commission.

In addition, the Company as market operator applies the provisions of Law 4514/2018 “Markets in financial instruments and other provisions” and ESMA guidelines 71-99-598 EBA/GL/2017/12/21.3.2018 on the suitability assessment of the members of the governing body of the market operators and the providers of market reference data services.

The policies and procedures applied by the Company are contained in the Articles of Association, which is hierarchically the supreme rulebook of operation, the Internal Operations Rulebook which is an internal Company document supplements the provisions of its Articles of Association, and other Rulebooks and policies of the Company that regulate specific functions, and, lastly, the principles and specific practices for listed companies provided for in the Hellenic Corporate Governance Code for listed companies of the Hellenic Corporate Governance Council (HCGC), with which the Company voluntarily complies; the Code is available at http://www.athexgroup.gr/web/guest/esed-hellenic-cgc.

In accordance with the provisions of article 46 of Law 4514/2018, the assessment of the Board of Directors is the responsibility of the Nomination and Compensation Committee, and as such the Company deviates from the provision in the Hellenic Corporate Governance Code special practice of Part VII, par. 7.1, in accordance with which the Chairman of the BoD chairs the BoD assessment process.

General Meeting - Shareholder rights

Operation of the General Meeting - Authority

The General Meeting of Shareholders is the supreme body of the Company having the authority to decide on all matters that concern the Company. The procedures and convocation rules, participation and decision making by the General Meeting, as well as its responsibilities are regulated in detail in the provisions of the Articles of Association of the Company and law 4548/2018.

Shareholders have the right to participate at the General Meeting, either in person or through a legally authorized representative, in accordance with the legal procedure in effect.

The Board of Directors ensures that the preparation and the proceedings of the General Meeting of shareholders facilitate the effective exercise of shareholder rights; shareholders are informed about all matters relating to their participation in the General Meeting, including the items on the Daily Agenda, and their rights during the General Meeting.

In particular regarding the preparation of the GM, and in conjunction with the provisions of law 4548/2018, the Company publishes on its website at least twenty (20) days before the General Meeting, both in the Greek and English languages, information regarding:

- The date, the time and the place where the General Meeting of shareholders is being convened,
- The main rules and practices for participating, including the right to introduce items to the daily agenda and to submit questions, as well as the deadlines for exercising those rights,
- The voting process, the conditions for representation by proxy, and the documents that must be used for voting by proxy,
- The proposed daily agenda of the Meeting, including the draft decisions for discussion and voting, as well as any accompanying documents.

- The proposed list of candidate members of the BoD and their biographical statements (provided that the election of members is on the agenda), and
- The total number of shares and voting rights on the convocation date.

The Chairman of the Board of Directors of the Company, the Chief Executive Officer, and the Chairmen of the Committees of the Board of Directors are present at the General Meeting of shareholders, in order to provide information and brief on matters that are put forth for discussion, and to answer questions or provide clarifications that shareholders request. In addition, at the General Meeting, the head of Internal Audit of the Company and the certified auditors are also present.

The Chairman of the Board of Directors, or if he or she is not able or absent, his or her replacement, temporarily chairs the General Meeting, electing one or two secretaries from among the shareholders that are present and / or from non-shareholders until the list of those able to participate at the General Meeting is validated, and the permanent Chair of the General Meeting is elected. The Chair is comprised of the Chairman and one or two secretaries that also perform vote gatherer duties.

After the list of shareholders that have the right to vote is validated, the General Meeting immediately elects the permanent Chair, which is comprised of the Chairman and one or two secretaries, which also carry out vote gatherer duties. The decisions of the General meeting are taken in accordance with the provisions of the law in effect and the provisions of the Articles of Association of the Company.

The voting results are published on the website of the Company within five (5) days from the General Meeting of shareholders, and are also translated in English.

Shareholder participation in the General Meeting

Any person that has the status of shareholder at the start of the 5th day before the day of the first session of the General Meeting (record date) may participate in the General Meeting. The abovementioned record date also applies in case of a postponement or repeat session, provided that the postponed or repeat session is not more than thirty (30) days from the record date. If that is not the case, or if a new invitation is published for the repetitive general meeting, in accordance with article 130 of law 4548/2018 at the General Meeting the person that has the status of shareholder on the start of the 3rd day before the date of the postponed or repetitive General Meeting participates.

Proof of the status of shareholder is based on the information received by the Company from the company "Hellenic Central Securities Depository" which is the central securities depository providing registry services under the meaning of §5 article 40 of law 4548/2018 and in which the transferrable securities of the Company are held.

Representation at the General Meeting

Shareholders may participate in the General Meeting in person or by proxy.

Each shareholder may appoint up to three (3) proxies. However, if the shareholder possesses shares of the Company which appear in more than one securities accounts, this restriction does not prevent the shareholder from appointing different representatives for the shares in each securities account at a particular General Meeting. The appointment of a proxy can be freely revoked.

A proxy that acts for more than one shareholders can vote differently for each shareholder.

The appointment and revocation or replacement of the proxy or representative takes place in writing or by electronic means that are submitted to the Company at least forty eight (48) hours before the appointed date of the General Meeting. Notification of the appointment and revocation or replacement of the proxy by electronic means is by electronic mail at the email address on the Invitation to the General Meeting.

A plenipotentiary document for appointing proxies is available to shareholders in hard copy at the Investor Relations Department of the Company, and in electronic form on the website of the Company (www.athexgroup.gr).

The shareholder proxy is obliged to notify the Company, before the start of the General Meeting, about any specific event, which may be useful to shareholders in order to ascertain the risk that the proxy may serve other interests besides the interests of the shareholder.

A conflict of interest may arise in particular when the representative:

a) Is a shareholder that exercises control of the Company, or other legal person or entity that is controlled by that shareholder,

b) Is a member of the Board of Directors or in general of the management of the Company or a shareholder that exercises control of the Company, or other legal person or entity that is controlled by that shareholder, which exercises control of the Company.

c) Is an employee or an auditor of the Company or a shareholder that exercises control, or other legal person or entity that is controlled by a shareholder that exercises control of the Company.

d) Is a spouse or a relative in the first degree with one of the private individuals that are mentioned in cases a) to c).

The Articles of Association of the Company makes provision, even though this has not been technically implemented, for the remote participation of shareholders at the General Meeting by electronic means, without the physical presence of shareholders at the venue and the participation in the voting by correspondence or electronic means under the terms of law 4548/2018.

Collective and individual minority shareholder rights

1. At the request of shareholders representing one twentieth (1/20) of the paid-up share capital, the Board of Directors is obliged to convene an Extraordinary General Meeting of shareholders, specifying the day of its session, which shall not be more than forty five (45) days from the date the request was served to the Chairman of the Board of Directors. The request contains the subject of the daily agenda. If the General Meeting is not convened by the Board of Directors within twenty (20) days from the service of the relevant request, it shall be convened by the requesting shareholders, at the expense of the Company, by court judgment issued in as part of the protective measures. The judgment determines the place and time of session, as well as the daily agenda. The decision cannot be challenged in court. The Board of Directors convenes the General Meeting in accordance with general provisions or makes use of the procedure of article 135 of law 4548/2018, unless the requesting shareholders have excluded this last option.

2. At the request of shareholders representing one twentieth (1/20) of the paid-up share capital, the Board of Directors is obliged to include additional items on the daily agenda of the General Meeting, which has already been convened, if the relevant request is received by the Board of Directors at least fifteen (15) days prior to the General Meeting. The additional items must be published or disclosed, under the responsibility of the Board of Directors, in accordance with article 122 of law 4548/2018, at least seven (7) days before the General Meeting. The request to include additional items in the daily agenda is accompanied by a justification or a draft decision for approval by the General Meeting, and the revised daily agenda is published in a similar manner as the previous daily agenda, thirteen (13) days before the date of the General Meeting and simultaneously made available to shareholder on the website of the Company together with the justification or the draft decision that has been submitted by shareholders, in accordance with the provisions in paragraph 4 of article 123 of law 4548/2018. If these items are not published, the requesting shareholders are entitled to request the postponement of the General Meeting, in accordance with paragraph 5 and to make the publications themselves, in accordance with the second subparagraph of the present paragraph, at the expense of the Company.

3. Shareholders representing one twentieth (1/20) of the paid-up share capital have the right to submit draft decisions for items that are included in the initial or any revised daily agenda of the General Meeting. The request must reach the Board of Directors at least seven (7) days before the date of the General Meeting, and the draft decisions are made available to shareholders in accordance with the provisions of paragraph 3 of article 123 of law 4548/2018 at least six (6) days before the date of the General Meeting.

4. The Board of Directors is not obliged to include items in the daily agenda nor publish or disclose them together with the draft decisions that are submitted by shareholders, in accordance with paragraphs 2 and 3 respectively, if their content is obviously in contrast with the law of accepted principles of morality.

5. At the request of a shareholder or shareholders representing one twentieth (1/20) of the paid-up share capital, the Chairman of the Meeting is obliged to postpone decision-making by the Regular or Extraordinary General Meeting, once only, for all or certain items, by setting the date for continuation of the session as requested in the shareholders' request, which shall not be more than twenty (20) days from the date of postponement. The General Meeting, following the postponement, is a continuation of the previous Meeting and a repeat of the publication formalities of an invitation to shareholders is not required. New shareholders can also participate at that meeting, in compliance with the provisions of the article 124 §6 of law 4548/2018.

6. Following a request by any shareholder, which is submitted to the company at least five (5) full days before the General Meeting, the Board of Directors is obliged to provide the General Meeting with the information specifically requested concerning Company affairs, insofar as they are relevant to the items on the daily agenda. There is no obligation to provide information, when the information is already available on the website of the Company, especially if it is available in the form of questions and answers. In addition, at the request of shareholders representing one twentieth (1/20) of the paid-in share capital, the Board of Directors is obliged to announce to the General Meeting, provided it is an Annual meeting, the amounts that, over the previous two years, have been paid to each member of the Board of Directors or to Directors of the Company, as well as any benefit to these persons for whatever reason or by whatever contract of the Company with them. In all of the abovementioned cases, the Board of Directors may refuse to provide such information for sufficiently important reason, which is recorded in the minutes. Such a reason may be the representation of the requesting shareholders to the Board of Directors, in accordance with articles 49 or 80 of Law 4548/2018. In the cases referred to in this paragraph, the Board of Directors may answer once to shareholder requests having the same content.

7. At the request of shareholders representing one tenth (1/10) of the paid-up share capital, which is submitted to the Company within the limit of paragraph 6, the Board of Directors, the Board of Directors is obliged to provide to the General Meeting information about the course of corporate affairs and the assets of the Company. The Board of Directors may refuse to provide information for sufficiently important reason which is recorded in the minutes. Such a reason may be the representation of the requesting shareholders to the Board of Directors, in accordance with articles 49 or 80 of Law 4548/2018, provided that the corresponding members of the Board of Directors have received this information in a manner that is adequate.

8. In the cases of paragraphs 6 and 7 of the present, any doubt as to whether a reason for refusal on the part of the Board of Directors to provide information is valid or not, is resolved by court order, which is published as part of the precautionary measures process. In that same decision, the court obliges the company to provide the information that it had refused to. This decision cannot be appealed.

9. At the request of shareholders representing one twentieth (1/20) of the paid-up share capital, vote on an item or items of the daily agenda takes place by roll-call vote.

In all of the abovementioned cases, requesting shareholders are obliged to prove their shareholder status and, with the exception of the case of the first subparagraph of paragraph 6, the number of shares they possess during the exercise of the relevant right.

Proof of the status of shareholder is based on the information received by the Company from the company "Hellenic Central Securities Depository" which administers the Dematerialized Securities System which is the central securities depository under the meaning of §5 article 40 of law 4548/2018. All of the above information on minority rights and the terms for enforcing them are available on the website of the Company (www.athexgroup.gr).

Available documents and information

The information of article 12 §§3, 4 and 5 of law 4548/2018, including the Invitation to the General Meeting, the documents that must be used to exercise the right to vote by proxy or representative, the documents that will be submitted to the General Meeting, the draft decisions on the items of the daily agenda, as well as the information concerning the exercise of minority rights of article 141 of law 4548/2018 are available in hard copy at the Investment Relations Department of the Company (110 Athinon Ave, 1st floor, tel +30-210 3366 616), where shareholders can receive copies at no charge. In addition, all of the abovementioned documents, the total number of shares outstanding and voting rights (in total and by share class) are available in electronic form on the website of the Company (www.athexgroup.gr).

Board of Directors

The Board of Directors which is elected by the General Meeting of shareholders manages the Company and represents it in and out of court. It is the primary obligation and duty of the members of the Board of Directors to constantly strive to increase the long term economic value of the Company and to defend company interests in general. Furthermore, given that the shares of the Company are listed in an organized market, the duty of the Board of Directors consists of constantly striving to increase long term shareholder value. Members of the Board of Directors are forbidden from pursuing own interests at the expense of the Company's interest. This prohibition applies to all persons to whom the Board of Directors has assigned duties to manage the Company (substitutes of the Board of Directors).

At the end of each fiscal year, the Board of Directors drafts a report on the transactions of the Company with companies related with in (under the meaning of article 32 of law 4308/2014). The report is provided to the supervisory authorities and is brought to the attention of the General Meeting of shareholders of the Company.

In accordance with the Company's Articles of Association, the Board of Directors may decide to assign the exercise of all or some of its rights and or powers concerning the management, administration and representation of the Company to one or more persons, irrespective of whether these persons are members of the Board. The title and responsibilities of each of these persons is always determined in the decision of the Board of Directors appointing them.

The Chief Executive Officer of the Company is its supreme executive officer, responsible for any matter concerning its operation, and has the overall supervision of its operation.

Authority – Responsibilities of the Board of Directors

The Board of Directors, acting collectively, manages and administers corporate affairs. It generally decides any matter that concerns the Company, and takes any action, except those for which either by Law or by the Articles of Association, authority rests with the General Meeting of shareholders.

The Board of Directors of the Company has, as a whole, sufficient knowledge and experience, at least regarding the most important activities of the Company, so that it can carry out its monitoring function on all of its operations, either directly or indirectly through the relevant Committees of the Board of Directors. In order to avoid conflict of interest, the Company adopts best practices and corporate governance principles that apply, especially regarding the separation of executive and supervisory duties of the members of the Board of Directors.

The BoD is comprised of executive, non-executive and independent non-executive members. Executive members are responsible for the day-to-day management of the Company, while non-executive members are duty bound to promote all corporate affairs.

1. The Board of Directors manages the Company and develops its strategic direction, having as its primary obligation and duty to constantly strive to increase the long term economic value of the Company and to defend corporate interests in general.
2. The Board of Directors, in discharging its powers and fulfilling its obligations, has at its forefront the interest of shareholders, company employees, other interested parties and the social benefit of its actions. The BoD decides using its fair entrepreneurial judgment.
3. The BoD observes and duly complies with the provisions of the Law as part of the Company's activities and of the companies associated with it.

4. Decisions that are critical for the Company, especially the specification of its goals and the determination of its strategy are taken only by the BoD. In particular, the BoD:
   - Determines the general business strategy of the Company and its subsidiaries.
   - Drafts the business plan for the time frame that it deems necessary.
   - Approves the annual budget of the Company and monitors its execution on a quarterly basis.
   - Audits and decides on investments (capital expenditures) by the Company.
   - Audits the financial statements.
   - Determines the goals to be attained and the means of attaining them.
   - Decides on buyouts, mergers and spinoffs.
   - Decides the first level of the organizational structure of the Company and its staffing.
   - Approves the General Governance Principles of the Company and its subsidiaries, and decides on the staffing of the bodies required to operate the regulated activities of the Group.
   - Determines and staffs the Committees of the Board of Directors that are foreseen by the Corporate Governance Code that the Group complies with.
   - Audits the effectiveness of the corporate governance practices of the Company and makes any necessary modifications.
   - Selects, monitors and replaces executive members, in case of resignation or forfeiture, and sets down the plan for their succession.
   - Determines the remuneration of executive members and other members of the BoD, based on the long term interests of the Company and its shareholders.
   - Ensures that a transparent process is maintained in the proposals to elect new members to the BoD.
   - Monitors and resolves potential conflicts of interest of managers and shareholders, including poor management of assets of the Company and abuse in relation to transfers to persons closely related with members of the BoD.
   - Ensures the integrity of the system of financial reporting and independent audit, as well as the optimum operation of the appropriate internal audit systems, especially for financial and operation audit, risk management and compliance with the legal and regulatory framework in effect.
5. In order to fulfill their obligations, the members of the BoD have the right of free access to factual, material and timely information.
6. The BoD meets at least once a month, preferably on dates determined at the start of the calendar year. The BoD has the flexibility to meet whenever deemed necessary.

The responsibilities of the executive members of the BoD are to:

- Constantly strive to increase the long term economic value of the Company, and to protect corporate interests in general.
- Shape the vision, strategic direction, corporate goals and operational plans for all activities of the Company, in accordance with the decisions of the BoD.
- Develop, implement and communicate the policies and action plans, in accordance with the decisions of the BoD.
- Ensure that senior executive members take all appropriate measures in order to effectively manage the Company.
- Ensure the systematic and continuous communication with clients, investors, employees, supervisory authorities, the public and other authorities.

- Define clear operational goals and policies for senior executives in their operational sectors of responsibility.
- Review the work of their operational sector of responsibility and brief the BoD.
- Consistently implement the operational strategy of the Company through the effective use of available resources.
- Ensure the completeness and reliability of the data and information that are required for the accurate and timely determination of the financial position of the Company.
- Comply with the legal and regulatory framework that governs the operation of the Company.
- Represent the Company.
- Implement the decisions of the General Meeting of the shareholders of the Company.

The responsibilities of the non-executive members of the BoD are to promote all corporate affairs pertaining to the supervision of the management of corporate affairs, and by providing direction concerning all corporate affairs, such as indicatively:

- Constantly striving to increase the long term economic value of the Company, and protect corporate interests in general.
- Monitoring the consistent implementation of the operational strategy of the Company through the effective use of the available resources.
- Monitoring that the operational plan for achieving the corporate goals is in accordance with the decisions of the General Meeting of shareholders of the Company.

The independent members of the Board of Directors are tasked with promoting all corporate affairs.

Composition – Term of office of the Board of Directors

In accordance with the Articles of Association, the Company is managed by a Board of Directors which is composed of nine (9) up to thirteen (13) members.

In accordance with the Company's Articles of Association, the term of office of the Board of Directors is four years, which is automatically extended until the Annual General Meeting of the shareholders of the Company which will meet or be convened after the end of its term of office.

Members are elected by the General Meeting of shareholders, in accordance with the provisions of law 4548/2018. The changes in the composition of the Board of Directors that take place during the fiscal year are, in accordance with the law, announced at the next Annual General Meeting.

Members of the Board of Directors can always be reelected and can be freely recalled.

The Board of Directors of the Company that was elected by the Annual General Meeting of shareholders in 2015, and whose term of office ends on 20.5.2019, consists of thirteen (13) members. Twelve (12) members have been elected by the General Meeting of Shareholders on 20.5.2015 and one (1) member was elected by the Board of Directors on 27.12.2017 to replace a member that resigned. The composition of the BoD today is as follows:

	Name	Position
1.	George Handjinicolaou	Chairman, non-executive member
2.	Socrates Lazaridis	Vice Chairman & Chief Executive Officer
3.	Alexandros Antonopoulos	Independent non-executive member
4.	Konstantinos Vassiliou	Non-executive member
5.	Ioannis Emiris	Non-executive member
6.	Dimitris Karaiskakis	Executive member
7.	Sofia Kounenaki – Efraimoglou	Independent non-executive member

	Name	Position
8.	Ioannis Kyriakopoulos	Non-executive member
9.	Adamantini Lazari	Independent non-executive member
10.	Nikolaos Milonas	Independent non-executive member
11.	Alexios Pilavios	Non-executive member
12.	Dionysios Christopoulos	Independent non-executive member
13.	Nikolaos Chryssochoides	Non-executive member

The biographical statements of the members of the current Board of Directors are available on the website of the Company (www.athexgroup.gr).

Mrs. Maria Saxoni, attorney, head of the Group Corporate Secretary & Corporate Governance Unit has been appointed Secretary to the Board of Directors.

Election – Replacement of members of the Board of Directors

The members of the Board of Directors are elected by secret ballot by the General Meeting of the shareholders, in accordance with the provisions of law 4548/2018. The members of the Board of Directors can be shareholders or third parties, can always be reelected, and are freely recalled.

If a member of the Board of Directors resigns, dies, or forfeits his office for any reason, or is declared forfeit by a decision of the Board of Directors due to unaccounted for absence from the meetings for three straight months, the Board of Directors may continue to manage and represent the Company without replacing these members, provided that the remaining members are at least nine (9).

If the number of members of the Board of Directors drops below nine (9), and provided that the remaining members are at least three (3), the Board of Directors is obliged to elect replacements for the remainder of the term of office for the members being replaced, at least up until the ninth (9th) member. The decision on the election is published as provided by article 13 of law 4548/2018, as it applies, and is announced by the Board of Directors to the next General Meeting that is convened, which can replace the member elected even if such an item has not been included in the daily agenda. In any case, all actions of the members of the Board of Directors that have been elected in such a manner are considered valid, even if the members are replaced by the General Meeting.

Formation of the Board of Directors in a body

The Board of Directors elects from among its members, by an absolute majority of members present or represented, the Chairman, the Vice Chairman who replaces the Chairman when he or she is absent or unavailable, while when the Vice Chairman is absent or unavailable he or she is replaced by another member of the Board of Directors who is appointed by it, or on occasion by the Chief Executive Officer of the Company. In addition, the Board of Directors, by an absolute majority of members present or represented, appoints its Secretary who may not necessarily be a member of the Board of Directors. These elections always take place during the first meeting of the Board of Directors following the General Meeting that decides the election of a new Board of Directors. The Chairman, the Vice Chairman as well as the Chief Executive Officer can always be re-elected.

Convening the Board of Directors

The Board of Directors is convened by the Chairman or the Vice Chairman replacing him, and meets at the headquarters of the Company, or through teleconference, in accordance with the provisions of law 4548/2018 that are in effect, at least once a month.

The Board of Directors can legally meet outside its headquarters in another location, either in the country or abroad, provided that at the meeting all of its members are present or represented, and no member is opposed to holding the meeting and to taking decisions.

In fiscal year 2018 the Board of Directors met fourteen (14) times.

The attendance of each member of the Board of Directors at the meetings that took place in fiscal year 2018 is shown in the following table:

Name	Meetings in fiscal year 2018	Number of meetings – present via proxy	Number of meetings - presence in person
George Handjinicolaou	14	-	14
Socrates Lazaridis	14	-	14
Alexandros Antonopoulos	14	1	13
Konstantinos Vassiliou	14	-	9
Ioannis Emiris	14	-	13
Dimitris Karaiskakis	14	1	13
Sofia Kounenaki – Efraimoglou	14	2	12
Ioannis Kyriakopoulos	14	3	11
Adamantini Lazari	14	-	14
Nikolaos Milonas	14	-	14
Alexios Pilavios	14	-	13
Dionysios Christopoulos	14	1	13
Nikolaos Chryssochoides	14	1	13

Quorum – Majority – Member representation - Minutes

The Board of Directors has a quorum and is legally in session when one half plus one of the members is present or represented; however the number of members that are present cannot be less than three (3). In order to calculate the number necessary for the quorum, any fractional remainder is discarded.

When the Board of Directors meets by teleconference, the members that participate in the teleconference are considered to be physically present.

The decisions of the Board of Directors are taken with an absolute majority of those present and represented, unless the law or the Articles of Association stipulate otherwise.

A member of the Board of Directors may be represented at the meetings only by another member of the Board of Directors, authorized in writing (including email, telegram or telefax), addressed to the Board of Directors.

Drafting and signing minutes by all members of the Board of Directors or their representatives is equivalent to a decision of the Board of Directors, even if no meeting had previously taken place.

The discussions and decisions of the Board of Directors are recorded in summary form in a special ledger which may be kept electronically. At the request of a member of the Board of Directors, the Chairman is obliged to record in the minutes an exact summary of the member’s opinion. In this ledger, a list of members present or represented at the meeting of the Board of Directors is recorded.

Delegating responsibilities of the Board of Directors to consultants or third parties

The Board of Directors may, by a decision taken by an absolute majority of the members that are present and/or represented, delegate the exercise of all or some of its rights and or powers concerning the management, administration and representation of the Company to one or more persons, irrespective of whether these persons are members of the Board. The title and responsibilities of each of these persons is always determined in the decision of the Board of Directors appointing them.

Remuneration of the Board of Directors – Remuneration policy

A key requirement for continuous, long term growth, as well as ensuring the constant presence and sustainability of the company in the market, is the alignment of the goals and motives of the members of the BoD, executives and in general all employees of the company with the goals of shareholders as well as with market conditions in general.

In recognition of this fact, and by respecting its legal and regulatory obligations, the Company has implemented, maintains and applies basic principles and rules concerning employee remuneration, including the members of the BoD and executives that promote proper and effective risk management and do not create incentives for relaxing risk standards.

As part of the licensing of the subsidiary company of the Group Athens Exchange Clearing House S.A., and in compliance with the European Market Infrastructure Regulation (EMIR) concerning the obligations of Central Counterparties (CCPs) together with the existing legal and regulatory framework in Greece, a specific remuneration policy was adopted which was evaluated in accordance with the abovementioned Regulation. As a result, and for reasons of direct relevance and uniform regulation, this policy will also be adopted by the Company in order to complete the following core principles that are applied.

The remuneration of non-executive members of the Board of Directors is determined by a special decision of the Annual General Meeting, in accordance with the provisions of law 4548/2018 and is related to the time provided for the meetings of the Board of Directors in carrying out their duties as non-executive members, and the extent of their duties.

There is no provision for providing bonuses, stock options or performance based remuneration.

The General Meeting of shareholders in 2018 has preapproved the payment to members of the Board of Directors and of the Committees of remuneration in accordance with article 24 §2 of law 2190/1920 that was previously in effect for fiscal year 2018. Following the proposal of the BoD, this remuneration remained at the same level as in fiscal year 2017, as follows:

1. The amount of €160 per meeting for representation expenses per member of the Board of Directors, excluding its executive members.
2. The amount of €140 per month for representation expenses per member of the Board of Directors participating in the Strategic Investments Committee.
3. The amount of €160 per meeting for representation expenses per member of the Board of Directors participating in the Audit Committee.

All of the abovementioned amounts are gross before taxes and other fees, including third party fees.

In particular, the remuneration of the non-executive members of the Board of Directors that has been preapproved for participation at the Board of Directors and its Committees in 2018 amounts to €30,960.00 (net remuneration €26,650.37) and in particular:

- Gross remuneration of €21,280 for Board of Directors representation expenses for 10 non-executive members (1 member has waived remuneration), i.e. net remuneration of €18,317.82.
- Gross remuneration of €4,640 for two out of the three members of the Audit Committee (1 member has waived remuneration), i.e. net remuneration of €3,994.11
- Gross remuneration of €5,040 for the three members of the Strategic Investments Committee, i.e. net remuneration of €4,338.43

The remuneration of the executive members of the Board of Directors (Chief Executive Officer & Chief Operating Officer) are approved by the General Meeting of shareholders. As regards the remuneration of the executive members of the Board of Directors, the following apply:

- the remuneration and benefits policy of the Company for positions of equivalent level with those that the members of the Board of Directors hold, and
- the terms of their individual employment contracts (which have been approved by the GM of shareholders of the Company).

The remuneration structure for executive members of the Board of Directors which do not receive remuneration for their participation in the Boards of Directors of the companies of the Group, includes a fixed and an ancillary part, as follows:

- Annual base salary and representation expenses
- Ancillary benefits (in the form of additional benefits), always in accordance with their position in the Company hierarchy, the corresponding corporate policies, and in accordance with the terms of their indefinite term employment contracts.

In particular:

Annual base pay is the fixed part of the remuneration for executive members of the Board of Directors, and is determined in their individual employment contracts following approval by the General Meeting of shareholders of the Company, taking into consideration the level of their position in the organization, the importance of their position, their duties and responsibilities as well as market data on comparable positions of a similar level.

As far as other additional benefits are concerned, executive members of the Board of Directors receive supplementary benefits, which are provided without exception to all personnel of the Group, are part of the overall policy of the Company and do not provide any incentive for assuming risk. Such benefits are for example health insurance.

It should be noted that the Annual General Meeting of shareholders of the Company of 29.5.2014 approved the extension of the term in the individual employment contract of the Chief Executive Officer and the Chief Operating Officer concerning the reduction in their annual remuneration, which for fiscal year 2018 amount to €184,369.89 for the Chief Executive Officer and €104,893.29 for the Chief Operating Officer, have been preapproved by the General Meeting on 20.5.2018 and will be submitted for approval by the forthcoming General Meeting.

The abovementioned remuneration of executive members covers their services to all the companies of the Group. No bonuses, stock options or performance based remuneration have been granted.

Assessment of the Board of Directors

The Company assesses the way the Board of Directors functions and carries out its duties. The location and evaluation of the strengths and weaknesses is a prerequisite for the improvement of the effectiveness of the BoD.

In order to assess the Board of Directors, the provisions of article 46 of law 4514/2018 “Markets in financial instruments and other provisions” are applied, as well as the guidelines ESMA 71-99-598 EBA/GL/2017/12/21.3.2018 on the evaluation and suitability of the members of the administrative body and of the persons that hold key positions in the “Nomination and Compensation Committee” (“the Committee”) and, additionally, the Hellenic Corporate Governance Code in accordance with which there is a general principle on the regular self-assessment by the Board of Directors of its effectiveness in carrying out its duties, as well as that of the Chairman and of the BoD Committees.

The self-assessment takes place within the first quarter of each year and concerns the previous year. The Committee oversees the assessment process, and plans and coordinates that regular assessment process of the Board of Directors and its members, the Committees of the Board of Directors, the Chairman of the Board of Directors and the Chief Executive Officer, ensuring that it is carrying out adequately. The Committee:

(a) Periodically – at least annually – assesses the adequacy of the structure, the size, the composition and performance of the Board of Directors and its Committees and submits proposals to it related to potentially required changes

(b) Periodically – at least annually – assesses the knowledge, abilities and experience of the members of the Board of Directors individually and as a whole, and submits relevant reports to the Board of Directors

(c) Periodically – at least annually – assesses the performance of the Chairman of the Board of Directors and its Committees

(d) Periodically – at least annually – evaluates the performance of the Chief Executive Officer on the current fiscal year in conjunction always with the targets of the approved budget and prevailing market conditions.

The assessment of effectiveness is performed by filling out questionnaires / evaluation forms prepared by the Committee which cover the overall requirements / expectations as part of the provisions of the Law and the Corporate Governance Code.

The Committee appoints one of its independent members or an independent outside partner as Assessment Officer.

The Assessment Officer:

i. Distributes the questionnaires / forms to the members of the Board of Directors and provides clarification on the process and the deadline for filling them out. The questionnaires / forms may be transmitted to members of the Board of Directors and filled out electronically.

ii. Collects the data from the members of the Board of Directors, ensuring the data confidentiality.

iii. Prepares the “Assessment Report”, gathering the findings of the assessment process, and submits it to the Committee.

At the same time, the Committee fills out the Questionnaire evaluating the knowledge, abilities and experience at the individual level of the members of the Board of Directors, and of the BoD as a whole.

Besides the questionnaire, the Committee may gather any additional material it deems useful to the process, carry out personal interviews with the members of the Board of Directors or / and senior executives of the Group who do not participate in it but are in contact with the members of the Board of Directors etc.

The Committee summarizes the results of the assessment. After discussion among its members, they are presented and discussed at the Board of Directors of the Company where the appropriate remedial measures are proposed and decided to resolve any identified weaknesses.

The management of the Company provides all the necessary means and human resources to the Committee and the Assessment Officer in order to complete the process.

Other professional commitments of the members of the BoD

The members of the current Board of Directors have notified the Company about the following professional commitments (including significant non-executive commitments to corporations and non-profit organizations):

BoD member	Professional commitment
George Handjinicolaou	• Non-executive Chairman of the BoD of the subsidiary Hellenic Central Securities Depository • Non-executive Chairman of the Board of Directors at Piraeus Bank and Chairman of the Strategic Planning Committee • Non-executive Chairman of the BoD of Energy Clear • Vice Chairman of the Hellenic Bank Association • Chairman of the BoD of the Piraeus Bank Group Cultural Foundation • Etolian Capital LLC, Partner • George & Judith Handjinicolaou Foundation, Trustee
Socrates Lazaridis	• Chief Executive Officer of the subsidiaries “Athens Exchange Clearing House” and “Hellenic Central Securities Depository” • Chairman of the Stock Markets Steering Committee • Member of the BoD of the Hellenic Capital Market Commission • Member of the BoD of the Hellenic-American Chamber of Commerce • Member of the BoD of the Hellenic Council on Competitiveness • Vice Chairman of the Federation of Euro-Asian Stock Exchanges (FEAS)
Alexandros Antonopoulos	• Chairman of the Board of Directors at Murex Re • Member of the Finance Committee of the Synod of the Church of Greece

BoD member	Professional commitment
Konstantinos Vassiliou	• Deputy Chief Executive Officer of Eurobank Ergasias • Non-executive member of the Board of Directors of Eurobank Factors • Non-executive member of the Board of Directors of Eurobank Equities • Stone Group, Non-executive member Advisory Committee
Ioannis Emiris	• General Manager of Private and Investment Banking at Alpha Bank • Non-executive member of the BoD of Alpha Finance • Non-executive Member of the BoD of Alpha Bank London Ltd
Dimitris Karaiskakis	• Chief Operating Officer of the Group • Non-executive member of the BoD of Hellenic Energy Exchange • Non-executive member of the BoD of Energy Clear
Sofia Kounenaki – Efraimoglou	• Vice Chairwoman of the Foundation of the Hellenic World • Chairwoman and Chief Executive Officer of Adrittos Holdings – a company of the Foundation of the Hellenic World • Member of the BoD of the Peloponnesian Folklore Foundation (Foundation affiliated with the Foundation of the Hellenic World) • Member of the BoD at the Athens Chamber of Commerce and Industry (ACCI) • Cashier of the BoD at ALBA (Athens Laboratory of Business Administration) • Member of the Governing Council of the Hellenic Corporate Governance Council • 2nd Vice Chairwoman of the BoD of Technopolis-Acropolis • Chairwoman and Chief Executive Officer of VEK Industrial-Commerce-Construction Holdings and Ladis Hotel, Tourism and Construction – entities for managing private financial interests • Vice-Chairwoman of the Hellenic – Latin American Business Council BoD • General Secretary of the Hellenic-Asiatic Business Council BoD • Member of the Business Advisory Council of the Business MBA International Program at the Athens University of Economics • Member of the General Council of the Hellenic Federation of Enterprises (SEV)
Ioannis Kyriakopoulos	• Chief Financial Officer of National Bank of Greece and the NBG Group • Non-executive 1st Vice Chairman of NBG Pangaea REIC
Adamantini Lazari	• Non-executive member of the BoD of Selonda Aquaculture, and a member of the Audit Committee • Chairwoman of the BoD of Villa Precieux – a subsidiary of Selonda • Chairwoman of the BoD of Sparfis – a subsidiary of Selonda • Member of the BoD of Polemarcha Epidavros – a subsidiary of Selonda • Member of the BoD of Perseus and a member of the Audit Committee – a subsidiary of Selonda • Advisor to the Board - Domius Capital Advisors LLP (consulting company based in London) • Member of the Investments Committee of the Economists Occupational Insurance Fund
Nikolaos Milonas	• Professor of Finance at the Economics Department of Athens University • Deputy Dean of Financial Affairs at Athens University • Chief Executive Officer at Tsagkaris (a company belonging to the University) • Member of the BoD of Evgenideio Hospital (a company belonging to the University) • Chairman of the BoD of ETB Energy Technology & Biofuels
Alexios Pilavios	• Non-executive Chairman of the BoD of the subsidiary Athens Exchange Clearing House • Non-executive Chairman of the BoD at Alpha Asset Management • Non-executive Vice Chairman of the BoD at ABC Factors • Independent non-executive member of the BoD of Mytilineos • Member of the BoD of the Hellenic-American Educational Foundation

BoD member	Professional commitment
Dionysios Christopoulos	• Deputy Director in the Banking Supervision Department of the Bank of Greece • Independent non-executive member of BoD of the subsidiaries Athens Exchange Clearing House and Hellenic Central Securities Depository
Nikolaos Chryssochoides	• Chief Executive Officer of N. Chryssochoides Brokers • Vice Chairman of the BoD of the Association of Members of the Athens Exchange • Member of the BoD at Compro IT S.A. • Member of the BoD at U-Trade IT S.A. Holding • Member of the BoD at NBG Asset Management

It is noted that no member of the Board of Directors of the Company participates in the Boards of Directors of more than five (5) listed companies.

Committees of the Board of Directors

As part of the continuous improvement of the organizational structure of the Company and the Group, the Board of Directors has assigned specialized issues to the following main special Committees, among others, which meet on a regular or ad hoc basis.

Audit Committee:

The Audit Committee operates as an oversight committee of the Board of Directors and its main purpose is to supervise the quality and integrity of the accounting and auditing mechanisms, as well as the process by which the financial statements are produced.

In carrying out its duties, the Audit Committee oversees (i) the financial information process, (ii) the external audit process, (iii) the effectiveness of the internal audit systems, and (iv) the evaluation of the operation of the Internal Audit Division, and reports directly to the Board of Directors of the Company.

Besides its responsibilities to the Company, the Audit Committee, as part of its responsibilities at the Group level, is informed on a regular basis on matters relating to the internal and external audits of the subsidiary company "Hellenic Central Securities Depository" (ATHEXCSD).

The Audit Committee has at least three (3) non-executive members of the Board of Directors that are not involved in the operation of the Company in any way, in order to be able to pass judgment that is objective and independent without conflict of interest. In addition, the majority of the members of the Audit Committee consists of independent non-executive members.

The main responsibilities of the Committee are:

Supervision of the Internal Audit Division

- Examine and approve the Internal Audit Regulation, in order to assure that it complies with International Internal Audit Standards.
- Propose to the Board of Directors the appointment and removal of the Director of Internal Audit with the criterion of, among others, of ensuring the independence and objectivity of the Internal Audit Division.
- Evaluate the Director of Internal Audit.
- Monitor and inspect the Internal Audit Division, including the professional conduct of its officials, in accordance with Greek and European laws and regulations, as well as International Standards and the Code of Conduct of the Institute of Internal Auditors and evaluate the work, adequacy and effectiveness, without affecting its independence.

  In particular, it evaluates the staffing, including the professional competence of the officials, and the organizational structure of the Internal Audit Division and identifies any weaknesses. If it deems appropriate, it submits proposals to the BoD so that the Division possess the necessary means, be adequately staffed with sufficient knowledge, experience and training, and not have restrictions in is work and have the foreseen independence.

It is informed about the annual audit schedule of the Division before it is carried out and evaluates it, taking into consideration the core business and financial risk sectors, as well as the results of previous audits. In this context, the Committee examines whether the annual audit schedule (in conjunction with any mid-term and short-term schedules) cover the main audit areas and systems that are subject to financial information and approves the short-term, mid-term and long-term plan of the Division and any possible modifications.

It has regular meetings with the Director of Internal Audit to discuss matters of his responsibility, as well as any issues that may have arisen from the internal audits. The Committee receives knowledge of the work of the Internal Audit Division and of its regular and ad-hoc reports, and informs the Board of Directors about their content concerning the financial information of the Company. In this context it examines and evaluates the audit reports of the Internal Audit Division as well as management comments.

- Receives key reports and audit findings at least on a quarterly basis and examines whether senior management executives take the necessary corrective measures on time in order to face audit weaknesses and other significant matters that are discovered by the Internal Audit Division and informs the Board of Directors.
- Assigns to the Division of Internal Audit the audit for any activity of the Company for which there is suspicion of fraud, and immediately informs the Board of Directors in important instances.
- Informs the Board of Directors on other internal audit issues of the Company, in accordance with the processes in effect.

Supervision of the external auditors

- Examines and submits recommendation to the Board of Directors, in accordance with article 15 of Regulation (EU) 537/2014 and the provisions of Law 4449/2017 and in general the legal and regulatory framework in effect, on the submission of a proposal to the General Meeting concerning the appointment, reappointment and revocation of the certified auditors, as well as their terms of employment and their fee.
- Preapproves the remuneration of the certified auditor in accordance with the legal and regulatory framework in effect on the regular audit of the annual and six-moth financial statements and submits a proposal to the Board of Directors.
- Performs an annual assessment of the effectiveness, independence and objectivity of the certified auditor and oversees the periodic rotation of both the certified auditor and his/her key collaborators of the audit firm that carry out the audit.
- Is informed by the certified auditor on the annual mandatory audit schedule before it is implemented, assesses it and ensures that the annual mandatory audit schedule will cover the most significant audit fields, taking into consideration the key business sectors and financial risk of the Company. In addition, the Committee submits proposal on other important issues, whenever deemed necessary.
- Monitors the submission of the reports by the certified auditors for the Company and is informed about them.
- Informs the Board of Directors that the work of the certified auditors, insofar as the scope and the quality are concerned, is correct and adequate.
- Requests from the certified auditor to report in writing (Audit Letter) about any problems and weaknesses that have been located by the Internal Audit System during the audit of the annual financial statements of the Company, as well as any other material observations by submitting relevant suggestions, and is responsible and ensures that all necessary actions are made for submitting the Audit Letter to the Board of Directors.
- Discusses with the certified auditor any material auditing differences that arose from the audit, irrespective of whether they were resolved.

- Informs the Board of Directors about the results of the financial audit and explains through the report submitted by the certified auditor how the financial audit contributed to the integrity of the financial information and the role of the Committee in the process.
- Submits proposals to the Board of Directors about the special areas where additional audits may be required by the auditors.
- Proposes to the Board of Directors about the periodic assignment, at least once every five years, of assessing the adequacy of the Internal Audit System of the Company to third parties, excluding the regular auditors, who must have the required experience for the task. The auditing firm assuming the work must not undertake more than two consecutive assessments.

Supervision of the Financial Statements

- Monitors the procedure and conduct of the statutory audit of the separate and consolidated financial statements and especially its performance and effectiveness and assists the Board of Directors in ensuring that the financial statements of the Company are reliable and in accordance with accounting standards, tax principles and the law.
- Ensures the existence of an effective process for providing financial information, monitoring, examining and evaluating this process, i.e. the mechanisms and production systems, the flow and dissemination of financial information produced by the organizational units of the Company, taking into consideration other public information (announcements, press releases etc.), compared to the financial information. In this context it submits to the Board of Directors recommendations or proposal to improve this process and to assure its intergrity.
- In cases of significant disagreements between management and the certified auditor, it takes all necessary actions and recommendations in order to resolve them.
- Intervenes in order to resolve critical matters that may arise during the audit process, such as a potential difference of opinion between the auditor and those being audited.
- Is informed about the written assurances that the certified auditor requires from management, receives the Management Letter from the certified auditors which it subsequently submits it to the Board of Directors.
- Informs the Board of Directors on matters for which the external auditors express strong reservations.
- Examine the financial statements as to their content, before they are submitted to the Board of Directors for approval, in order to evaluate their completeness and consistency in relation to the information given to it, as well as with the accounting principles applied by the Company, and expresses its opinion to the Board of Directors on the financial statements.

Supervision of the Auditing Mechanisms

- Monitors, examines and evaluates the adequacy and effectiveness of the policies, processes and safeguards that comprise the Internal Audit System, ensuring the quality and risk management concerning the financial information of the Company without breaching its independence.
- Reviews the published information as to the Internal Audit System and the main risks and uncertainties in conjunction with financial information.
- In this context, it evaluates the methods used by the Company to locate and monitor risks, deal with the most significant risks through the Internal Audit System and the Internal Audit Division as well as their publication in the published financial statements in the correct manner.
- Informs the Board of Directors on the its findings regarding the adequacy and systematic review of the Company's audit and risk management mechanisms, which ensure the effectiveness, adequacy, as well as the saving of resources in terms of the proper functioning of the Company and its subsidiaries as well as the Company's compliance with the laws and regulations concerning the integrity of the financial information process, and submits proposals for improvement if deemed necessary.

- Participates in the process of monitoring the implementation of the audit recommendations for improvements in control mechanisms and in the production process, in order to examine the implementation progress of the recommendations and any problems that arise in the relevant action plans.
- Submits proposals to the Board of Directors for dealing with weaknesses that have been identified, and follows-up on the implementation of measures decided.
- Is informed by the Director of Internal Audit on all important findings, for which management has decided to assume the risk of non-compliance, either due to the cost involved, or due to specific conditions. In these instances, it informs the Board of Directors, which is responsible for taking decisions on those corporate affairs.
- Submits to the Board of Directors reports for case that have been reported to it of conflicts of interest in the transactions of the Company with related persons.
- Supports the Board of Directors in obtaining sufficient information in order to take decisions on matters of related party transactions.
- Ensures the existence of procedures in accordance with which Company staff may, confidentially, express its concerns about potential breaches of the law and irregularities in the gathering, processing and publishing of financial information, including complaints concerning matters of accounting, auditing, or concerning the operation of internal audit or other matters that concern the operation of the business.
- Assigns an internal audit on any activity of the Company and its subsidiaries that it deems necessary.
- Directs both the certified as well as internal auditors to audit projects, for which there is suspicion of fraud.
- Determines the terms for selecting and assigning to certified auditors, excluding the regular auditors, to assess the adequacy of the Internal Audit System and submits a proposal to the Board of Directors for the selection and the remuneration of the selected auditing firms to assess the Internal Audit System of the Company in accordance with the legal and regulatory framework. The assignment of such an assessment project must be made periodically and at least once every five years.

The composition of the Audit Committee, which was appointed by the Annual General Meeting of shareholders of the Company on 20.05.2015, in accordance with the provisions in effect, is the following:

Chairman	Nikolaos Milonas, independent member
Members	Adamantini Lazari, independent member
	Alexandros Antonopoulos, independent member

The Audit Committee meets a minimum of four times a year, i.e. every quarter, or more frequently if necessary, at the invitation of the Chairman. In particular, the Audit Committee has the express right to convene as often as it deems necessary in order to carry out its duties.

At the meetings of the Committee, besides the members, other persons may participate – without the right to vote - such as the Chief Executive Officer, senior officers (CFO, COO, CBDO), the Director of Financial Management, external auditors etc. All executives of the Company and the Group are obliged to present themselves to the Committee if invited.

At least two (2) times per year, the Audit Committee must meet with the external auditors without the presence of management.

The Committee has a quorum and is legally in session if the majority of its members are present, either in person or through a written authorization to another member of the Committee. The participation of a member of the Committee at a meeting through a video or audio link is to be considered valid for this purpose. In order for the Committee to take a valid decision, the majority of the members present must form a majority. If a decision on any matter of the Committee is not unanimous, the views of the minority shall be recorded in the minutes.

The Audit Committee reports to the Board of Directors on its activity at least once every quarter, either through minutes, or through written reports, and submits to the Board of Directors an annual findings report for its General Meeting.

As part of discharging its duties in 2018, the Audit Committee held 15 meetings. The participation of the Chairman and the members of the Audit Committee in the meetings held in fiscal year 2018 are shown in the following table:

Name	Meetings held in fiscal year 2018	Number of meetings – present via proxy	Number of meetings - presence in person
Nikolaos Milonas	14	-	14
Adamantini Lazari	15	-	15
Alexandros Antonopoulos	15	-	15

The Committee during the meetings above, dealt with all matters under its competence, as determined by the relevant provisions, with the most important ones being:

- Inform the Board of Directors on the result of the mandatory audit, propose to the Board of Directors the approval of the separate and consolidated annual financial statements before publication based on the accounting practices followed,
- Monitor and evaluate the adequacy and effectiveness of the policies, processes and safeguard of the Internal Audit System, quality assurance and risk management concerning the provision of financial information, without breaching its independence,
- Submit recommendation for the appointment by the General Meeting of certified auditors, including their fee and terms of hire, without influence from third parties,
- Examine and evaluate the audit reports of the Internal Audit Division, as well as management comments,
- Monitor progress on Internal Audit findings, as well as findings of the information systems audit,
- Approve the annual report and activities of the Internal Audit Division for fiscal year 2018,
- Inform on the annual audit program of the Internal Audit Division,
- Approve the budget of the Internal Audit Division

The Audit Committee provided regular reports to the Board of Directors on the manner with which it carried out its duties. In addition, in 2018, the Audit Committee had two (2) meetings with the certified auditors of the Company, without the presence of management of the Company. During the abovementioned meetings, but also during its meetings with the presence of the relevant executives of the Company, the Audit Committee ascertained the effectiveness of the audit procedure.

Nomination and Compensation Committee:

The Nomination and Compensation Committee is composed of three members of the Board of Directors, of which at least two are independent members; the Committee is chaired by an independent member. The main responsibilities of the Committee are to:

- Propose to the Board of Directors person or persons appropriate to succeed the Chairman or the Chief Executive Officer in case of resignation or permanent inability to carry out their duties for any reason during their term of office.
- Propose to the Board of Directors person or persons appropriate to replace members of the Board of Directors in case of resignation or forfeiture of office or permanent inability to carry out their duties for any reason during their term of office.
- Propose to the Board of Directors a list of persons appropriate for election by the General Meeting as members of the Board of Directors of the Company.

- Evaluate the suitability of the structure, the size, the composition and the performance of the Board of Directors and its Committees, and submit proposals to its concerning any required changes.
- Evaluate the knowledge, skills and experience of the members of the Board of Directors individually and as a whole, and submit relevant reports to the Board of Directors
- Evaluate the effectiveness of executive management members during each fiscal year, always in conjunction with the targets of the approved budget and the conditions that are prevalent in the market.
- Design and further development of principles and policy rules concerning the system of remuneration (e.g. Remuneration Policy) of the member of the Board of Directors, including the executive members of the Board of Directors and senior executives in a manner that ensures compliance with the principles of transparency and corporate governance.

Committee composition:

Chairman	Alexandros Antonopoulos, independent member of the BoD
Members	George Handjinicolaou, non-executive Chairman of the BoD
	Sofia Kounenaki – Efraimoglou, independent member of the BoD

The members of the Committee are appointed, removed and replaced by the Board of Directors. The loss of the status of member of the Board of Directors automatically implies the loss of the status of member of the Committee. The Committee meets at the invitation of the Chairman, as many times as it is deemed necessary in order to carry out its mission, but no less than once every calendar year. Each member of the Committee has the right to request, in writing, the convocation of the Committee, in order to discuss specific matters.

In order to take a decision, the Committee must have a quorum of at least two members. The presence, participation and voting of a member of the Committee when a matter is being discussed that concerns it directly and personally, or has a conflict of interest, is not allowed. The abovementioned prohibition does not apply to decisions on matters that have general application.

The Committee has the right to invite to its meetings as many employees, executives or consultants of the Group as it deems necessary or useful.

The Committee is assisted in carrying out its work by the departments of the Company and is allowed to hire outside consultants and to determine the terms of engagement with them; these expenses will be borne by management's budget.

The Committee reexamines its rules of operation and either adds to or revises them with those amendments it deems useful.

In carrying out its duties for 2018, the Committee met four (4) times with all members being present, in order to submit proposals to the Board of Directors as part of its responsibilities, and decide pay and other remuneration issues for senior management. In addition, it met in order to submit to the Board of Directors of the subsidiary ATHEXCSD proposals to hire senior executives.

Strategic Investments Committee:

The Strategic Investments Committee is composed of members of the Board of Directors, and its main purpose is to define investment strategy. At the meetings of the Investment Committee the Chief Financial Officer, who has been appointed as administrator of the cash assets of the Company, is present. The Strategic Investments Committee reports to the Board of Directors. Its main responsibilities are to:

- Determine the short term and the long term investment goals.
- Monitor implementation of those goals.
- Draft reports to the Board of Directors at regular time intervals, detailing the results of the investment policy and describing possible deviations from the goals and performance that have been set.

Committee composition:

Chairman Ioannis Kyriakopoulos, non-executive member of the BoD

Members Alexios Pilavios, non-executive member of the BoD

Adamantini Lazari, independent member of the BoD

In 2018 the approved investments policy was followed without deviation.

Stock Markets Steering Committee

The Committee was set up in accordance with §7.1.3 of the Athens Exchange Rulebook, to cover the operational needs of the Organized Markets that have been set up and are in operation in accordance with the Rulebook, as well as overall compliance with the Rulebook.

It has a minimum of nine (9) regular members and a maximum of thirteen (13), of which 3 are chosen among executives of ATHEX and companies of the Group, with those members considered executive, and the remainder chosen among persons that possess guarantees of authority and specialization in capital markets in Greece or abroad. Besides the above members, the Committee may also have alternate members. The members of the Committee, regular or alternate, are appointed by the Board of Directors.

The Members of the Committee are audited for eligibility in accordance with the provisions of §4 article 42 of law 3606/2007. The term of office of Committee members ends on 30 June of each calendar year, and may be renewed. In each case, the Committee meets and legally decides until the term of office of its members is renewed, or new members are appointed.

During its 1st meeting, and after appointing its Members, it is formed as a body electing a Chairman, Vice Chairman and appointing a Secretary, which may or may not be a member of the Committee. The Chairman is mandatorily elected from among executive members. The Committee drafts a Rulebook of Operation in which its responsibilities are specified, conflict of interest policies described; the convocation, the quorum and decision making are described; how members forfeit their seats, are absent or unable to attend, how members are replaced, how minutes are kept, as well as other procedural details of its operation are defined. The abovementioned Rulebook of Operation is disclosed to the Board of Directors as well as to the Hellenic Capital Market Commission.

The responsibility of the Committee are mainly to take decisions on manners concerning market access, trading in the Markets, listing of financial instruments and classifying them in Segments, notification obligations of listed companies, imposition of sanctions in accordance with Section (6) of the Athens Exchange Rulebook, as well as other matters concerning the operation of the markets and application of the Athens Exchange Rulebook, as specified in the Rulebook of operation of the Committee. Furthermore, the Committee is responsible for amending the Rulebook of the Athens Exchange and to issue decisions in execution of the Rulebook, in accordance with §7.1.3.

The Committee may form committees and delegate to them, as well as to other departments, responsibilities regarding the implementation of the provisions of the Rulebook of the Athens Exchange. No responsibilities are delegated which concern amendments to the Rulebook of the Athens Exchange or the issuance of decisions based on the Rulebook in accordance with §7.1.3 of the Rulebook of the Athens Exchange.

Wherever in the provisions of the Athens Exchange Rulebook there is mention of a Decision or other action of the Company, this decision is in principle taken by the Stock Markets Steering Committee, even if not expressly mentioned. The Steering Committee informs the Board of Directors quarterly on the events of the previous quarter.

Committee composition:

Chairman Socrates Lazaridis, Chief Executive Officer

Vice Chairman Nikolaos Porfyris, Chief Business Development Officer

Members Kimon Volikas, President of the Hellenic Fund and Asset Management Association

Apostolos Gkoutzinis, Partner at Milbank

Panagiotis Drakos, President of the Union of Listed Companies

Andre Kuusvek, Director for Local Currency and Capital Markets Development at the European Bank for Reconstruction and Development (EBRD)

Nikolaos Pimplis, Legal counsel to management, executive member of the Committee

Georgios Politis, Chief Executive Officer of Euroxx Securities

Athanasios Savvakis, President of the Federation of Industries of Northern Greece

George Serafeim, Associate Professor of Business Administration at Harvard Business School

Dionysios Christopoulos, Deputy Director, Banking Supervision Department at the Bank of Greece

In 2018 the Committee met five (5) times as part of the framework of responsibilities mentioned above.

In addition, the Stock Markets Steering Committee decided to set up the following sub-Committees, in accordance with §7.1.3 (5) of the Athens Exchange Rulebook, article 1 §10 of the Alternative Market Rulebook and the decision of the BoD of ATHEX of 31.7.2017:

i.Listings & Market Operation Committee

The Listings & Market Operation Sub-Committee consists of nine members and specifically the three executive members of the Steering Committee (its Chairperson, Vice-Chairperson and Executive Member) and six non-executive members who are proposed by its Chairperson.

The responsibilities of the Listings & Market Operation Committee are, primarily:

a) Decision-making for the approval of:

- New Listings / Admission to trading of shares, bonds, ETFs, warrants, SFPs, Derivatives, stock repos and any other financial instrument.
- Admission/re-admission to Markets and Trading Categories
- Deletion/suspension of a financial instrument
- Resumed trading of shares suspended >6 months
- Prospectus for the listing/admission of transferable securities made available through public offering <€5 million
- Listing/modification of a financial instrument on account of corporate actions, particularly: Listing of new shares arising from the share capital increase of a listed company through cash contributions and Bond listings.

b) Modification of and/or change to the characteristics of existing financial instruments

c) Any other instance of listing/admission to trading which is stipulated by an amendment to the Rules of Procedure of the Steering Committee.

d) Verify adherence to the ATHEX Rulebook or the Alternative Market Operating Rules, taking measures, imposing penalties, in accordance with the ATHEX Rulebook and the Alternative Market Operating Rules.

e) Forced cancellation of transactions in accordance with article 29 of Law 2579/1998, a responsibility assigned by decision dated 31.7.2017 of the Board of Directors.

f) Forced cancellation of transactions and orders in accordance with the ATHEX Rulebook and the Alternative Market Operating Rules, a responsibility assigned by decision dated 31.7.2017 of the Board of Directors.

g) Suspension of trading for more than one day

h) Setting Market Holidays

i) Acceptance of Alternative Market Advisors

j) Approval, change, withdrawal of a Member

k) Merger/Absorption of a Member

l) Approval of, withdrawal from, release from, change to obligations relating to Market Making in Financial Instruments

m) Introduction, amendment, abolition of rules on Market Making in Securities

n) Annual audit to verify Member compliance

o) Any other decision or action relating to or in connection with the above which arises from the ATHEX Rulebook or the Alternative Market Operating Rules

Committee composition:

Chairman	Socrates Lazaridis, Chief Executive Officer
Members	Nikolaos Porfyris, Chief Business Development Officer
	Nikolaos Pimplis, Management Legal Counsel
	Kimon Volikas, President, Hellenic Fund & Asset Management Association
	Apostolos Gkoutzinis, Partner, Milbank
	Panagiotis Drakos, President, Union of Listed Companies
	Georgios Politis, Chief Executive Officer of Euroxx Securities
	Athanasios Savvakis, Chairman of the Federation of Industry of Northern Greece
	Dionysios Christopoulos, Deputy Director, Banking Supervision Department

In 2018 the Committee met thirty five (35) times as part of the framework of responsibilities mentioned above.

ii.Corporate Actions Committee

The Corporate Actions Sub-Committee consists of five members and specifically the three executive members of the Steering Committee (its Chairperson, Vice-Chairperson and Executive Member) and the Chief Executive Officers of the Athens Exchange Group.

The Corporate Actions Committee has the following powers:

- Verification of fulfillment of requirements for indirect listings
- Approval of listing of new transferable securities due to the following corporate actions:
  i. Listing of bonus shares due to a share capital increase (capitalization of reserves or undistributed profits)
  ii. Listing of bonus shares (split, reverse split)
  iii. Listing of shares from a share capital increase due to merger
  iv. Listing of shares from stock options
  v. Listing of shares from conversion of bonds
  vi. Listing of shares due to conversion of shares of a different category
  vii. Listing of shares from a reinvestment program
  viii. Listing of Greek Government Securities or Bank Bonds
  ix. Listing of preemptive rights
- Notification in accordance with the Rulebooks regarding the following corporate actions:
  i. Change in the nominal value of shares due to return of capital, offsetting of losses, capitalization of reserves
  ii. Change of corporate name or trade name
  iii. Cancellation of shares and Share Capital Reduction

iv. Cancellation of bonds

v. Urgent transfer to the Low Free Float segment

vi. Any other decision or action relating to or in connection with the above which arises from the ATHEX Rulebook.

Committee composition:

Chairman	Socrates Lazaridis, Chairman of the Steering Committee
Members	Nikolaos Porfyris, Vice Chairman of the Steering Committee
	Nikolaos Pimplis, executive member of the Steering Committee
	Dimitris Karaiskakis, Chief Operating Officer
	Vasilis Govaris, Chief Financial Officer

In 2018 the Committee held twenty three (23) meetings as part of its abovementioned responsibilities.

Xnet Steering Committee

The responsibility of the Committee is to regulate any matter and necessary detail that concerns the application of the provisions of the Regulatory Framework with regards to the operation of the Xnet services, especially concerning the Xnet Network, the examination of applications and the participation of Members and Clearing Members, the risk management procedures that are applied and the determination of all types of parameters, methodologies and processes concerning this management, the procedures for settling Xnet trades and settlement, including the determination of cash settlement Entities and the particular procedures that are carried out by the Hellenic Central Securities Depository for settlement, the handling of overdue payments as well as taking related measures.

Committee composition:

Chairman	Nikolaos Porfyris, Chief Business Development Officer
Members	Andreas Daskalakis, Director of Market Operation & Member Support
	Christos Nikolaidis, Director of Risk Management and Clearing
	Konstantinos Karanasios, Director of Central Registry
	Dimitris Gardelis, Director of IT Development

In 2018 the Committee held five (5) meetings as part of its abovementioned responsibilities.

Policy of equal opportunity and diversity applied to managerial, administrative and supervisory bodies of the Company

The Athens Exchange Group complies at all levels with the existing regulatory framework for the application of equal treatment, and is committed to providing equal opportunity to all employees and candidates, at all levels of the hierarchy, and to operate under fair and legal human resource management processes, independent of gender, age, origin, handicap, sexual orientation, religion, participation in organizations, political beliefs, or any other characteristics that is protected by the law. All decisions concerning employment, including but not limited to those that concern hiring, promotion, training, pay and benefits, are based on individual qualifications, performance and behavior, and every effort is made that they be free of any unlawful discrimination.

The scope of the activities of the Group requires the contribution and combination of abilities, skills, professional-cognitive experiences and personalities of many people with different characteristics at all levels, and as such diversity at the Group is applied in practice and not just in theory.

Placements in administrative, managerial and supervisory bodies and senior positions of responsibility are based on merit and candidates are objectively examined, taking into consideration the advantages of diversification that include, but are not limited to gender, age, educational background, professional experience, individual abilities, knowledge and work experience.

In particular, for candidate appointments to the BoD of the Company, a priority for the Nomination and Compensation Committee is to ensure that the Board of Directors continues to possess strong leadership and the required combination of abilities in order to effectively implement the business strategy of the Group.

In addition, it is ensured that members possess strong values, guarantees of honesty and experience, in order to achieve the sound and prudent management of the Company. Persons recommended for election are those that, as a whole hold a variety of views, knowledge, judgment and professional experience, a commitment to fully participate in the Board of Directors and its Committees, traits required to properly discharge their duties and to maintain at the Board of Directors a balance of qualifications that meet corporate goals.

Furthermore, the structure, the specific activities and the environment in which the Group operates, the complexity of its operations and its special institutional role and character, the need to have a synthesis and balance between old and new members, gender balance, individual abilities and proven experience in financial matters, accounting, auditing, risk management and capital management, matters of new technologies and the new digital age, as well as a basic understanding of the legal and regulatory aspects that support the demands of the Group, are all taken into consideration.

On the Board of Directors of the Company, women account for 18.2% of non-executive members, and in the Committees of the Board of Directors the participation of women is 33%. The age of the members of the Board of Directors ranges from 45 to 66, with the average age being 57 years.

All members of the Board of Directors are holders of University level academic degrees conferred by Greek and/or foreign institutions, and most are also holders of post-graduate and/or doctorate degrees, with studies in various subjects, mainly finance and business administration, as well as political science, technology, information technology, philosophy, psychology.

Finally, all members have distinguished work careers and professional experience, with a long involvement in business administration in Groups and companies of the banking and financial sector, business administration, auditing, fund and risk management, financial management and corporate governance.

At the top management levels, all senior and top level executives have university level academic qualifications, with studies in various subjects – business administration, information technology, economics, legal, accounting, mathematics, political science and public administration – and have multi-year experience in their respective fields. Among senior and top executives, most have risen through the ranks at the Group, with a smaller percentage coming from the market.

At the top management levels, 28% of the posts are held by women, while the four senior executives are all men. The ages of middle executives range from 42 to 64 (with an average of 52 years), and, for senior executives ages range from 54 to 61 (with an average of 56 years) respectively.

In order to achieve sustainable and balanced development, and with the core principle that for managerial, administrative and supervisory bodies and positions of responsibility, objective qualifications and abilities are the material criteria, and that no automatic advancement takes place, the Group considers that the diversity applied, including gender balance, which is not approached on the basis of mandatory quotas, but based on objectivity and not an end in itself, is a key element for achieving its strategic objectives and maintaining its development, adds value, increases the qualifications pool, the experience and view that the Group possesses for its senior positions, as well as its competitiveness, productivity and innovation, so that in a structurally changing environment, it effectively and reliably improves the provision of core market operation services and adds value both to the capital raising procedures for businesses and to the fund management mechanisms for investors.

Matters of internal audit and risk management of the Company in relation to the reporting process

The primary concern of the Company is the development and the constant improvement and upgrade of the Internal Audit System, which comprises all of the recorded audit mechanisms and processes that cover the whole range of daily operations and procedures of the Company.

In particular, with regard to the Company's financial operations, a system of safeguards is in place that aims to prevent and/ or detect material errors in time in order to ensure the reliability of the financial statements, the effectiveness and efficiency of operations and compliance with the rules and regulations. Based on specific significance criteria (quantitative and qualitative), important accounts are identified, procedures are recorded, responsibilities and policies are assigned and control points are designed which are being implemented on an ongoing basis by management and staff.

The Board of Directors has the ultimate responsibility to monitor and appraise the effectiveness and sufficiency of the Internal Audit System.

Responsible for monitoring the compliance of the Internal Audit System are: a) the Audit Committee and b) the Internal Audit Division.

The **Audit Committee** of the Company has been set up by decision of the Board of Directors of the Company and operates based on the Standards for the Professional Application of Internal Audit of the Institute of Internal Auditors, decision 5/204/14.11.2000 of the Hellenic Capital Market Commission, Law 3016/2002 on corporate governance, and Law 4449/2017.

The main purpose of the Audit Committee is to assist the Board of Directors in the supervision of the quality, adequacy and effectiveness of the internal audit and risk management system, as well as the quality of the work performance of the Company.

The **Internal Audit Division** operates in the manner prescribed by the Code of Conduct and the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors (IIA), decision 5/204/14.11.2000 of the Hellenic Capital Market Commission and Law 3016/2002 on corporate governance. The Internal Audit Division reports to the Board of Directors, through the Audit Committee which supervises it.

The main responsibility of the Internal Audit Division is to express an opinion on the compliance or non-compliance of the internal processes of each audited area, as well as the application of the safeguards that have been adopted by Management, in order to prevent and avoid risk.

In addition, through the **Regulatory Compliance Unit** of the Group and the Regulatory Compliance Unit of Athens Exchange Clearing House (ATHEXClear), which operate independently of other departments of the Group, with clear and discrete lines of reporting from other Group activities, compliance is ensured with the letter and more importantly the spirit of the law, legal and regulatory rules and principles, codes of conduct and best practices in the markets in each of the countries where the Group and ATHEXClear are active, in order to minimize the risk of regulatory or supervisory sanctions, financial or reputational loss which the Group or ATHEXClear may suffer as a result of failure to comply with any rule.

Furthermore, a key concern of the Group is the management of risk arising from its business activities.

The Group, as organizer of the capital market, has developed a comprehensive framework for managing the risks to which it is exposed, ensuring its sustainability and development, as well as contributing to the stability and security of the capital market.

Athens Exchange Clearing House (ATHEXClear) belongs to the Group; it operates as a Central Counterparty (CCP) in the clearing of cash and derivatives products, and as such is obliged to satisfy strict requirements concerning risk management.

In particular, the internal and external legal and regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, the Regulation on the Clearing of Transactions on Derivatives, and Regulation (EU) 648/2012 of the European Parliament and Council of July 4th 2012 for OTC derivatives, central counterparties, and trade repositories, known as EMIR (European Market Infrastructure Regulation).

In light of these regulatory requirements, the Group applies a comprehensive plan for risk management in order to continue to provide high quality services.

Risk Strategy and Risk Management

The risk strategy of the Group is aligned with its business strategy to provide the appropriate infrastructure for the reliable, safe and unhindered operation of the capital market. In accordance with the strategy of the Group, the risk tolerance level is defined in order to satisfy market needs, limit cost for participants, maximize the exploitation of business opportunities but also ensure market security and compliance with regulatory requirements.

Unified risk management

The services that the Group provides involve various types and levels of risk, and it is recognized that effective risk management consists of the following:

- *Recognizing and assessing risks:* Analyzing the present and future activities of the Group, recognizing cases in which the Group is exposed to risks. The risks recognized are evaluated as to the potential exposure to loss. This includes in general the estimation of both the possibility that the loss will occur, as well as the potential effects.
- *Controlling risks:* The arrangements for managing each risk are the key to the effective management of risks and it is important that they be understood by all personnel. In addition, management is responsible to ensure the appropriate application of the unified framework for risk management and individual policies / frameworks.
- *Risk containment:* Management identifies the best method for risk containment, taking into consideration costs and benefits. As a general principle, the Group does not assume risks that pose the possibility of catastrophic or significant losses. Likewise, insuring against losses that are relatively predictable and without a material impact is avoided. The alternatives for containing risk depend on the level of tolerance of the Group against various types of risk.
- *Monitoring and reporting risks:* The Group possesses a comprehensive system for reporting and monitoring risks. In particular, the ATHEXClear Risk Management Department monitors the risk levels of the company on a continuous basis using specialized and approved risk management methods. The main assumptions, the data sources and the processes used in measuring and monitoring risk are documented and tested for reliability on a regular basis through the review and audit and the validation framework.

Risk categories

The Group ensures that it deals with all risks, internal or external, present or future, and especially those that have been recognized as being significant. It is recognized that each service provided by the Group can expose it to any combination of the risks mentioned below.

The usual risks to which, due to the nature of its activities, the Group is exposed to are:

Financial Risk

- Market risk (changes in exchange rates, interest rates, market prices, commodities and volatility)
- Credit risk (mainly counterparty credit risk and from the investment of own assets)
- Liquidity risk (mainly cash flows risk)

Operating risk

Risk due to a lack or failure of internal procedures and systems, by human factor or external events which includes legal risk.

Business risk

Risk due to new competitors, drop in transaction activity, deterioration of local and international economic conditions etc.

At the relevant section of the Annual Financial Report, there is an extensive reference to the applicable procedure for dealing with the financial, business and other above mentioned risk categories.

The Board of Directors is informed on a regular basis about the risks that the Group faces, and examines whether those risks are clearly identified, whether they have been adequately assessed, and whether their management is effective.

Information re items of article 10 §1 (c), (d), (f), (h), (i) of Directive 2004/25/EC of the European Parliament and of the Council of April 21st 2004 concerning public offers

- The information required under item (c) of §1 article 10 of Directive 2004/25/EC is already included in another section of the Annual Financial Report that refers to the additional information of article 4 §7 of law 3556/2007.
- With regards to the information required under item (d) of §1 article 10 of Directive 2004/25/EC, there are no securities of the Company that confer special control privileges to their holders.
- With regards to the information required under item (f) of §1 article 10 of Directive 2004/25/EC, there is no restriction of any kind on voting rights.
- With regards to the information required under item (h) of §1 article 10 of Directive 2004/25/EC, the provisions of the Articles of Association of the Company concerning the appointment and replacement of members of the Board of Directors and modifications of the Company's Articles of Association do not deviate from the provisions in law 4548/2018.

  In particular, in accordance with the provisions of the Articles of Association, the members of the Board of Directors can be nine (9) up to thirteen (13) and are elected by the General Meeting, which also decides on their number. Their term of office is four years, beginning on the day of election by the General Meeting and ending at the Annual General Meeting that is convened in the year during which the four year term since the election has already been completed.

  If a member of the Board of Directors resigns, dies, or forfeits his office in any way, or is declared forfeit by a decision of the Board of Directors due to unaccounted for absence from the meetings for three consecutive months, the Board of Directors may continue to manage and represent the Company without replacing these members, provided that the remaining members are at least nine (9).

  If the number of members of the Board of Directors drops below nine (9), and provided that the remaining members are at least three (3), the Board of Directors is obliged to elect replacements for the remainder of the term of office for the members being replaced, at least up until the ninth (9th) member. If elected by the Board of Directors as an interim member to replace another member, the election is announced to the General Meeting immediately following (Annual or Extraordinary), which may replace the members thus elected even if such an item has not been included in the daily agenda of the General Meeting in question.

  Already, by decision of the General Meeting, the members of the Board of Directors are thirteen (13).

  The members of the Board of Directors can always be reelected, and are freely recalled by the General Meeting of shareholders.
- The information required under item (i) of article 10 §1 of Directive 2004/25/EC is already included in another section of the Annual Financial Report that refers to the additional information of article 4 §7 of law 3556/2007.

TRANSACTIONS WITH ASSOCIATED COMPANIES OF THE HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE (ATHEX) GROUP FOR THE 18TH FISCAL YEAR FROM 1.1.2018 TO 31.12.2018

In accordance with the provisions of Article 2 of Law 3016/2002 on “Corporate governance, payroll issues and other provisions”, a report on transactions with associated companies of the Hellenic Exchanges-Athens Stock Exchange SA Group (ATHEX) has been prepared for the fiscal year 1.1.2018 - 31.12.2018.

Transactions with companies associated with the Group concern the following categories:

Dividends

These are the dividends which are received by Athens Exchange from its subsidiaries, based on their participation percentages.

Invoicing of services

These are services granting the right to use the OASIS system, monitoring and maintaining the network, computer and telecommunications equipment of the companies of the Group and providing information to data vendors.

Intra-Group Contracts

Because of the operating restructuring of the Group, by a contractual agreement dated 25.4.2005, Athens Exchange provides support and administrative services to the other companies of the Group. In addition, by the relevant contractual agreements Athens Exchange provides user and IT services to the other companies of the Group; these services are specified in the individual contracts.

Rents

Following the relocation of the departments of the Group to the new building, ATHEX collected rent from Athens Exchange and ATHEXClear up until 19.12.2013. The ATHEX central registry and depository business, which includes the building at 110 Athinon Ave, was transferred on 19.12.2013 to TSEC, at the same time the headquarters were moved to Athens and the name of the company changed to ATHEXCSD. Starting on 1.1.2014 ATHEXCSD collects rent from the other companies of the Group.

Financing

The former Athens Exchange had concluded a loan agreement with the former HELEX in order to provide the latter with a short term cash facility for the needs of the settlement of cross-border transactions as part of the operation of the XNET network.

The value of transactions and the balances of the Group with associated parties on 31.12.2018 are analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Remuneration of executives and members of the BoD	1,490	1,412	1,015	1,025

For the Hellenic Exchanges-Athens Stock Exchange S.A. (ATHEX) Group (following the completion of the restructuring), intra-Group transactions between the following associated companies according to article 42e of Codified Law 2190/1920 are included:

- Hellenic Exchanges-Athens Stock Exchange S.A. (ATHEX)

– Hellenic Central Securities Depository (ATHEXCSD)

– Athens Exchange Clearing House (ATHEXClear)

The balances and the intra-Group transactions of the companies of the Group on 31.12.2018 are shown in the following tables:

INTRA-GROUP BALANCES (in €) 31-12-2018				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	404,920	0
	Liabilities	0	3,069	0
ATHEXCSD	Claims	3,069	0	20,047
	Liabilities	404,920	0	1,611
ATHEXCLEAR	Claims	0	1,611	0
	Liabilities	0	20,047	0

INTRA-GROUP BALANCES (in €) 31-12-2017				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	569,926	68,090
	Liabilities	0	0	0
ATHEXCSD	Claims	(0)	0	1,261,736
	Liabilities	569,926	0	6,637
ATHEXCLEAR	Claims	0	6,637	0
	Liabilities	68,090	1,261,736	0

INTRA-GROUP REVENUES-EXPENSES (in €) 31-12-2018				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	402,376	109,822
	Expenses	0	308,833	0
	Dividend Income	0	802,600	0
ATHEXCSD	Revenue	308,833	0	5,085,351
	Expenses	402,376	0	16,258
ATHEXCLEAR	Revenue	0	16,258	0
	Expenses	109,822	5,085,351	0

INTRA-GROUP REVENUES-EXPENSES (in €) 31-12-2017				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	431,605	105,115
	Expenses	0	306,567	0
	Dividend Income	0	802,600	0
ATHEXCSD	Revenue	306,567	0	5,258,875
	Expenses	431,605	0	14,893
ATHEXCLEAR	Revenue	0	14,893	0
	Expenses	105,115	5,258,875	0

Intra-Group transactions concern: the annual fee for trade settlement (art. 1 decision 1 of ATHEX fees), settlement instructions (art. 1 decision 1 concerning ATHEX fees), support services (accounting, security, administrative services etc.), IT services, as well as PC support services, which are invoiced at prices comparative to those between third parties.

For the affiliated company Hellenic Energy Exchange, the table of claims and revenue for 2018 follows below; there were no corresponding amounts for 2017.

Claims (in €)	**2018**
ATHEX	112,223
ATHEXCSD	263,725

Revenue (in €)	**2018**
ATHEX	69.441
ATHEXCSD	110.142

REPORT IN ACCORDANCE WITH ARTICLE 4 OF LAW 3556/2007

The present explanatory report of the Board of Directors contains information in accordance with article 4 §7 of Law 3556/2007, and will be submitted to the Annual General Meeting of shareholders, in accordance with the provisions of article 4 §8 of Law 3556/2007. Wherever the provisions above refer to provisions of codified Law 2190/1920, which are abolished by article 189 of Law 4548/2018, these references are assumed to be to the corresponding provisions of Law 4548/2018 (article 188 of Law 4548/2018).

Share capital structure

The share capital of the Company is €41,640,120.00 and is divided into 60.348.000 shares, with a par value of €0.69 each. All shares are listed for trading in the Main cash market of Athens Exchange. The Company's shares are common registered with a voting right.

Restrictions on the transfer of shares of the Company

The transfer of shares of the Company takes place in accordance with the Law and there are no restrictions on their transfer in the Company's Articles of Association.

Significant direct or indirect participations in accordance with the provisions of Law 3556/2007

The following shareholders on 31.12.2018 possessed, directly and indirectly, more than 5% of the share capital of the Company:

Shareholder	% of the share capital of the Company
FRANKLIN TEMPLETON INSTITUTIONAL LLC (indirect participation - % based on the notification by the shareholder on 9.2.2016)	5.56%
THE LONDON AND AMSTERDAM TRUST COMPANY LTD (Direct participation - % based on the notification by the shareholder on 6.12.2013)	5.41%
SCHRODERS PLC (indirect participation - % based on the notification by the shareholder on 19.12.2018)	5.07%

No other physical or legal entity possesses more than 5% of the share capital of the Company.

Shares that provide special control privileges

No shares of the Company exist that confer on their holders special control privileges.

Voting right restrictions

No voting right restrictions are foreseen in the Articles of Association of the Company.

Agreements between shareholders of the Company

No agreement between its shareholders has been made known to the Company that implies restrictions in the transfer of its shares or in the exercise of voting rights of the Company's shares.

Rules for appointing and replacing members of the Board of Directors and modifying the Articles of Association, provided that they deviate from the provisions of Law 4548/2018 (which abolished codified Law 2190/1920)

Beyond the special provision regarding the continuation of the representation and management of the Company in case of resignation, death, or in any other way loss of the capacity of Member of the BoD, provided that the remaining members are at least nine (9) in number, the provisions of the Articles of Association concerning the appointment and replacement of the members of the Board of Directors and the modification of the Articles of Association do not deviate from the provisions of Law 4548/2018 which abolished codified Law 2190/1920.

Responsibility of the Board of Directors or specific BoD members regarding the issuance of new shares or the purchase of own shares in accordance with article 16 of Law 2190/1920 (and already article 49 of Law 4548/2018)

In accordance with the provisions of article 113 of Law 4548/2018, the Board of Directors can increase the share capital of the Company, by issuing new shares, in order to implement stock option plans approved by the General Meeting, whereby beneficiaries obtain Company shares, under the specific terms and procedures that are foreseen in the abovementioned provisions. There is no provision in the Articles of Association of the Company contrary to the above.

In accordance with the provisions of article 49 of Law 4548/2018 (previously article 16 of abolished codified Law 2190/1920, the Company may, following the approval of the General Meeting, obtain own shares up to the amount of 1/10 of the paid-in share capital, under the specific terms and procedures foreseen by article 49 of Law 4548/2018. There is no provision in the Articles of Association of the Company contrary to the above.

In accordance with the provisions in effect at the time the relevant decision was made and implemented of abolished article 16 of codified Law 2190/1920 (and already article 49 of Law 4548/2018), the General Meeting of the shareholders of the Company on 20.05.2015 approved a share buyback program for up to 10% of the paid-in share capital, over a time period of 24 months, at a price range from €1.50 to €7.00, with the aim of cancelling at least 95% of the shares thus purchased (the remaining 5% could have been distributed to employees).

Up until 21 April 2017, the date the program was completed, the Company had acquired a total of 5,020,563 shares corresponding to 7.68% of the paid-in share capital, at an average acquisition price of €4.63.

On 26 July 2017 the Company cancelled 4,769,563 shares of treasury stock and as a result on 31 December 2017 it possessed 251,000 shares that corresponded to 0.41% of the paid-in share capital. On 8 August 2018 the Company cancelled the remaining 251,000 shares, and as a result on 31 December 2018 it no longer possessed treasury stock.

Important agreement concluded by the Company, coming into effect, modified or expiring, in case there is a change of control of the Company following a public offer, and the effects of any such agreement

No such agreement exists.

Agreements that the Company has concluded with members of its Board of Directors or with employees, which foresee the payment of compensation in case of resignation or termination without cause, or termination of the term of office or employment, as a result of a public offer

There are no agreements between the Company and members of its Board of Directors or employees, which foresee the payment of compensation, especially in case of resignation or termination without cause, or termination of the term of office or employment, as a result of a public offer.

Alternative Performance Measures

By the European Securities and Markets Authority (ESMA/2015/1415el)

The European Securities and Markets Authority (ESMA/2015/1415el) published the final guidelines on the Alternative Performance Measures (APMs) that apply starting on 3 July 2016 to companies with transferable securities traded in organized exchanges. APMs are published by the issuers during the publication of regulated information, and aim to improve transparency and promote usability as well as provide accurate and comprehensive information to investors.

An Alternative Performance Measure (APM) is an adjusted financial measurement of past or future financial performance, financial position or cash flows that is different from the financial measurement defined in the applicable financial reporting framework. In other words an APM on the one hand is not exclusively based on financial statement standards, and on the other it provides material supplementary information, excluding items that may potentially differentiate from the operating results or the cash flows.

APMs must always be taken into consideration in conjunction with the financial results that have been drafted based on IFRS, and in no instance should they be considered as replacing them. The Athens Exchange Group used APMs for the first time in fiscal year 2016, in order to better reflect the financial and operational performance related to the activity of the Group as such in the fiscal year in question, as well as the previous comparable period.

Items affecting the adjustment

In accordance with the financial statements for fiscal year 2018, the items that affect the adjustment of the indices used by the Group in order to calculate APMs are the valuation of the shares of a listed bank that it possesses, the change in the value of its properties due to an assessment, as well as the provisions for bad debts, as detailed in the table below:

in € thousand	01.01-31.12.2018	01.01-31.12.2017
Statement of Comprehensive Income		
Provisions against bad debts	(78)	(600)
Plot of land assessment loss	(300)	0
Reversal of unused provisions	123	32
Total	**(255)**	**(568)**
Other Comprehensive Income	**0**	**0**
Gain from properties assessment	1,949	0
Share valuation	(1,117)	(527)
Total	**832**	**(527)**
Grand total	577	(1,095)

Based on the above table of adjustment items, the APMs used by the Athens Exchange Group are as follows:

Adjusted Measures for fiscal year 2018 compared to fiscal year 2017

- **EBITDA:** 1% deterioration
- **EBIT:** 1% deterioration
- **EBT:** 6% improvement
- **EAT:** 8% improvement
- **Cash Flows after Investments:** 29% improvement

- **Return on Investment (ROI):** 5% improvement
- **Return on Equity (ROE):** 8% improvement
- **Degree of Financial Self-Sufficiency:** 2% deterioration
- **Adjusted EPS:** 15% deterioration

Greater analysis concerning the definition and basis for calculation of the APMs is provided in note 5.53 of the present annual financial report.

Composition of the BoDs of the companies of the Group

The current members of the Boards of Directors of the companies of the ATHEX Group are listed in the following tables:

HELLENIC EXCHANGES - ATHENS STOCK EXHANGE S.A. HOLDING	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Socrates Lazaridis	Vice Chairman & Chief Executive Officer
Alexandros Antonopoulos	Independent non-executive member
Konstantinos Vassiliou	Non-executive member
Ioannis Emiris	Non-executive member
Dimitrios Karaiskakis	Executive member
Sofia Kounenaki – Efraimoglou	Independent non-executive member
Ioannis Kyriakopoulos	Non-executive member
Adamantini Lazari	Independent non-executive member
Nikolaos Milonas	Independent non-executive member
Alexios Pilavios	Non-executive member
Dionysios Christopoulos	Independent non-executive member
Nikolaos Chryssochoidis	Non-executive member

ATHENS EXCHANGE CLEARING HOUSE S.A	
Name	**Position**
Alexios Pilavios	Chairman, non-executive member
Gikas Manalis	Vice Chairman, non-executive member
Socrates Lazaridis	Chief Executive Officer, Executive member
Andreas Mitafidis	Independent non-executive member
Nikolaos Pimplis	Executive member
Charalambos Saxinis	Independent non-executive member
Dionysios Christopoulos	Independent non-executive member

HELLENIC CENTRAL SECURITIES DEPOSITORY S.A.	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Socrates Lazaridis	Vice Chairman & Chief Executive Officer
Nikolaos Pimplis	Executive member
Nikolaos Porfyris	Executive member
Dionysios Christopoulos	Non-executive member

Significant events after 31.12.2018

Participation in Boursa Kuwait

The Athens Stock Exchange decided to participate as a technical, operational and business services provider for Boursa Kuwait by forming a consortium with the largest possible participation from the qualified Local Companies to proceed to the final bidding process, organized by the Capital Markets Authority (CMA) of Kuwait, with regard to the privatization process of Boursa Kuwait.

On February 14th 2019, the Consortium comprising of Athens Stock Exchange (ATHEX), as the qualified international operator and a wide group of leading listed, financial groups in Kuwait, namely Arzan Financial Group (ARZAN), First Investment Company (FIC) and National Investments Company (NIC), were awarded the bid, by way of a closed bidding process organized by the **CMA**, for a 44% equity stake in Boursa Kuwait, the only market operator and one of the leading stock exchanges in the Gulf area.

The Consortium offered 0.237 Kuwaiti dinar (€0.69) per share for the stake purchase. A 6% stake is owned by the Public Institution For Social Security (PIFSS), while the remaining 50% will be sold to the public through an IPO process. The resulting ATHEX's participation in Boursa Kuwait's equity stake is ca. 0.779%, amounting to an investment of €1.03 million, as shown in the table below:

	Participation	Shares	14.2.2019 winning financial bid (0.237 KWD / share)	Investment (€)
ATHEX	0.779%	1,490,000	353,130.00	1,030,254.41
National Investment Co	14.407%	27,548,200	6,528,923.40	19,048,090.21
First Investment Co	14.407%	27,548,200	6,528,923.40	19,048,090.21
Arzan Financial Group	14.407%	27,548,200	6,528,923.40	19,048,090.21
Total (Consortium)	**44.000%**	**84,134,600**	**19,939,900.20**	**58,174,525.03**
Remaining	6.000%	11,472,900	2,719,077.30	7,932,889.78
Capital Markets Authority	50.000%	95,607,500	22,658,977.50	66,107,414.81
Total	**100.000%**	**191,215,000**	**45,317,955.000**	**132,214,829.62**

The active involvement of ATHEX in Boursa Kuwait is part of the Group's strategy to leverage its trading and post-trading technical and business know-how and systems in running successfully the Common Platform concept, with Cyprus Stock Exchange (CSE) since 2006, in providing systems and services to the Hellenic National Natural Gas System Operator (DESFA), in designing and supporting solutions for third parties in the financial industry and setting up to provide systems and services to the Hellenic Energy Exchange (ENEX).

As a next step, ATHEX along with its Consortium partners will closely cooperate with the CMA and Boursa Kuwait towards the implementation of the common strategic endeavors. The Consortium intends to support the expansion and development of Boursa Kuwait through the introduction of a number of new products, services and systems that will support the flow of capital from investors, both local and international, to issuers listed in Boursa Kuwait.

There is no event that has a significant effect in the results of the Group and the Company which has taken place or was completed after 31.12.2018, the date of the 2018 annual financial statements and up until the approval of the financial statements by the Board of Directors of the Company on 18.03.2019.

Athens, 18 March 2019

The Board of Directors

3. AUDIT REPORT BY THE INDEPENDENT CERTIFIED AUDITORS ACCOUNTANTS

[Translation from the original text in Greek]

Report on Review of Interim Financial Statements

To the Shareholders of "HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE SA (ATHEX)"

Report on the audit of the annual separate and consolidated financial statements

Our opinion

We have audited the accompanying annual separate and consolidated financial statements of "HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE SA" (the "Company") and its subsidiaries (the "Group") which comprise the annual separate and consolidated statement of financial position as of 31 December, 2018, the separate and consolidated statements of profit or loss and other comprehensive income (or profit or loss, comprehensive income), changes in equity and cash flow statements for the year then ended, and notes to the annual separate and consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the annual separate and consolidated financial statements present fairly, in all material respects the annual separate and consolidated financial position of the Company and the Group as at 31 December, 2018, their annual separate and consolidated financial performance and their annual separate and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards, as adopted by the European Union and comply with the statutory requirements of Codified Law 2190/1920.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs), as they have been transposed into Greek Law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the annual separate and consolidated financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

During our audit we remained independent of the Company and the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) that has been transposed into Greek Law, and the ethical requirements of Law 4449/2017 and of Regulation (EU) No 537/2014, that are relevant to the audit of the annual separate and consolidated financial statements in Greece. We have fulfilled our other ethical responsibilities in accordance with Law 4449/2017, Regulation (EU) No 537/2014 and the requirements of the IESBA Code.

Key audit matter

Key audit matter is that matter that, in our professional judgment, were of most significance in our audit of the annual separate and consolidated financial statements of the current period. That matters was addressed in the context of our audit of the annual separate and consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on that matter.

Key Audit Matter	How our audit addressed the key audit matter
Επικεντρωθήκαμε σε αυτή την περιοχή λόγω της σημαντικότητας των εκτιμήσεων και των παραδοχών στις οποίες βασίστηκε ο υπολογισμός της Διοίκησης αναφορικά με την πρόβλεψη για επισφαλείς απαιτήσεις. **Recoverability of client trade receivables (Note 5.32 of Annual Separate and Consolidated Financial statements)** We have focused on this area due to the significance of the underlying estimates and assumptions, Management has used to calculate the provision for doubtful debts. As at the 31 December, 2017, the Group and the Company have recorded client trade receivables of € 6,8 mil, and € 3,4 mil, respectively reduced by provision for doubtful debts of € 3,6 mil for the Group and € 1,6 mil for the Company. From the 1 January 2018, Management implemented IFRS 9 «Financial Instruments» in relation to client trade receivables and calculated the expected credit losses over the lifecycle of trade receivables in order to determine the required provision. For the purpose of determining the level of the provisions, significant estimates and assumptions are required in relation to the calculation of expected credit losses which are based on historical data and current market conditions as well as future forecasts at the end of each reporting date. Refer to annual separate and consolidated financial statements Note 5.2. “Basis of preparation of the Company and Consolidated financial statements” and Note 5.32 “Trade receivables, other receivables and prepayments”.	Our audit procedures in relation to the recoverability of client trade receivables included: • Understand the Group and Company’s credit control procedures and methodology for assessing the recoverability of client trade receivables • Assessed Management’s methodology and calculations relative to the impacts from the adoption of IFRS 9 • Tested the accuracy and the completeness of the data that was used to calculate the provision for doubtful client trade receivables based on the requirements of IFRS 9 on a sample basis • Assessed the underlying Management estimates and assumptions used in calculating the provision for expected credit losses. Based on the audit procedures performed, we found the estimates and assumptions used by Group and Company Management in the impairment assessment to be supported by the available evidence and the disclosures made in Note 5.32 of the annual separate and consolidated financial statements are adequate.

Other Information

The members of the Board of Directors are responsible for the Other Information. The Other Information, which is included in the Annual Report in accordance with Law 3556/2007, is the Statements of Board of Directors members and the Board of Directors Report (but does not include the annual separate and consolidated financial statements and our auditor’s report thereon), which we obtained prior to the date of this auditor’s report.

Our opinion on the annual separate and consolidated financial statements does not cover the Other Information and except to the extent otherwise explicitly stated in this section of our Report, we do not express an audit opinion or other form of assurance thereon.

In connection with our audit of the annual separate and consolidated financial statements, our responsibility is to read the Other Information identified above and, in doing so, consider whether the Other Information is materially inconsistent with the annual separate and consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We considered whether the Board of Directors Report includes the disclosures required by Codified Law 2190/1920 and the Corporate Governance Statement required by article 43bb of Codified Law 2190/1920 has been prepared.

Based on the work undertaken in the course of our audit, in our opinion:

- The information given in the the Board of Directors' Report for the year ended at 31 December 2018 is consistent with the annual separate and consolidated financial statements,
- The Board of Directors' Report has been prepared in accordance with the legal requirements of articles 43a and 107A of the Codified Law 2190/1920,
- The Corporate Governance Statement provides the information referred to items c and d of paragraph 1 of article 43bb of the Codified Law 2190/1920.

In addition, in light of the knowledge and understanding of the Company and Group, "HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE SA (ATHEX)" and their environment obtained in the course of the audit, we are required to report if we have identified material misstatements in the Board of Directors' Report and Other Information that we obtained prior to the date of this auditor's report. We have nothing to report in this respect.

Responsibilities of Board of Directors and those charged with governance for the annual separate and consolidated financial statements

The Board of Directors is responsible for the preparation and fair presentation of the annual separate and consolidated financial statements in accordance with International Financial Reporting Standards, as adopted by the European Union and comply with the requirements of Codified Law 2190/1920, and for such internal control as the Board of Directors determines is necessary to enable the preparation of the annual separate and consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual separate and consolidated financial statements, the Board of Directors is responsible for assessing the Company's and Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Board of Directors either intends to liquidate the Company and Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's and Group's financial reporting process.

Auditor's responsibilities for the audit of the annual separate and consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the annual separate and consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual separate and consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual separate and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Company's and Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- Conclude on the appropriateness of Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's and Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the annual separate and consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company and Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual separate and consolidated financial statements, including the disclosures, and whether the annual separate and consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Company and Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual separate and consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report.

Report on other legal and regulatory requirements

1. Additional Report to the Audit Committee

Our opinion on the accompanying annual separate and consolidated financial statements is consistent with the requirements of Article 11 of Regulation (EU) No 537/2014 - Additional Report to the Audit Committee of the Company.

2. Appointment

We were appointed as auditors of the Company by the decision of the annual general meeting of shareholders on 25 May, 2017. Our appointment has been renewed annually by the decision of the annual general meeting of shareholders for a total uninterrupted period of appointment of 2 years.

PricewaterhouseCoopers S.A.

268 Kifissias Avenue, 152 32 Athens

Reg. No. 113

Athens, 18 March 2019

Despina Marinou Reg N. 17681	Fotis Smyrnis Reg N. 52861

4. ANNUAL SEPARATE & CONSOLIDATED FINANCIAL STATEMENTS

for the period 1 January 2018 to 31 December 2018

In accordance with the International Financial Reporting Standards

4.1. Annual Statement of Comprehensive Income

	Notes	Group 01.01 31.12.2018	Group 01.01 31.12.2017	Company 01.01 31.12.2018	Company 01.01 31.12.2017
Revenue					
Trading	5.8	4,299	4,435	4,299	4,435
Clearing	5.9	7,914	8,171	0	0
Settlement	5.10	1,378	1,493	0	0
Exchange services	5.11	2,975	3,148	2,975	3,148
Depository services	5.12	2,443	2,580	0	0
Clearinghouse services	5.13	126	172	0	0
Market Data	5.14	2,891	3,204	3,115	3,482
IT services	5.15	468	309	427	263
Revenue from re-invoiced expenses	5.16	1,114	1,133	990	1,032
Ancillary services (XNET, colocation, LEI)	5.17	2,336	2,170	1,123	989
Other services	5.18	642	597	708	675
Total turnover		**26,586**	**27,412**	**13,637**	**14,024**
Hellenic Capital Market Commission fee	5.19	(1,019)	(1,063)	(369)	(399)
Total revenue		**25,567**	**26,349**	**13,268**	**13,625**
Expenses					
Personnel remuneration & expenses	5.20	9,860	9,458	5,328	5,387
Third party remuneration & expenses	5.21	633	810	382	439
Utilities	5.22	692	671	74	90
Maintenance / IT support	5.23	1,386	1,270	975	924
Other Taxes	5.24	1,154	1,200	597	623
Building / equipment management	5.25	491	514	110	112
Other operating expenses	5.26	1,885	2,374	1,499	1,945
Total operating expenses before ancillary services and depreciation		**16,101**	**16,297**	**8,965**	**9,520**
Re-invoiced expenses	5.27	962	977	748	821
Expenses for ancillary services (XNET, LEI, IT)	5.28	1,122	1,092	199	247
Total operating expenses, including ancillary services before depreciation		**18,185**	**18,366**	**9,912**	**10,588**
Earnings before Interest, Taxes, Depreciation & Amortization (EBITDA)		**7,382**	**7,983**	**3,356**	**3,037**
Depreciation	5.29 & 5.30	(3,504)	(3,060)	(1,732)	(1,571)
Earnings Before Interest and Taxes (EBIT)		**3,878**	**4,923**	**1,624**	**1,466**
Capital income	5.34	565	321	321	180
Dividend income	5.31	0	0	803	803
Revaluation on real estate (profit/loss)	5.30	(300)	0	(300)	0
Financial expenses	5.34	(135)	(166)	(10)	(49)
Earnings Before Tax (EBT)		**4,008**	**5,078**	**2,438**	**2,400**
Income tax	5.41	(981)	(2,002)	(669)	(814)
Earnings after tax		**3,027**	**3,076**	**1,769**	**1,586**

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

(Amounts in thousands euro unless otherwise noted) 77

		Group		Company	
		01.01	01.01	01.01	01.01
	Notes	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Earnings after tax (A)		**3,027**	**3,076**	**1,769**	**1,586**
Other comprehensive income/(losses)					
Items that may later be classified in the income statement:					
Other comprehensive income transferred to results in future fiscal years					
Available for sale financial assets					
Valuation profits / (losses) during the period	5.30	0	(742)	0	(742)
Income tax included in other comprehensive income / (losses)		0	215	0	215
Other comprehensive income not transferred to results in future fiscal years					
Profits / (losses) from the reassessment of real estate values		2,599	0	0	0
Income tax included in other comprehensive income / (losses)		(650)	0	0	0
Financial assets at fair value through comprehensive income					
Valuation profits / (losses) during the period	5.33	(1,490)	0	(1,490)	0
Income tax included in other comprehensive income / (losses)		373	0	373	0
Actuarial profits / (losses) from staff termination provision		8	(38)	6	(22)
Income tax effect		(2)	11	(2)	6
Other comprehensive income / (losses) after taxes (B)		**838**	**(554)**	**(1,113)**	**(543)**
Total other comprehensive income (A) + (B)		**3,865**	**2,522**	**656**	**1,043**

Distributed to:			
Company shareholders		3,865	2,522
Profits after tax per share (basic & diluted; in €)	5.41	0.064	0.042
Weighted average number of shares		60,348,000	60,348,000

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

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4.2. Annual Statement of Financial Position

	Note	Group		Company	
		31.12.2018	31.12.2017	31.12.2018	31.12.2017
ASSETS					
Non-Current Assets					
Tangible assets for own use	5.29	23,551	21,465	931	784
Intangible assets	5.29	6,549	6,084	4,174	4,075
Real Estate Investments	5.30	2,287	2,791	2,287	2,791
Investments in subsidiaries & other long term receivables	5.31	1,118	68	59,168	58,118
Financial assets at fair value through other income	5.33	561	2,052	561	2,052
Deferred tax asset	5.36	1,467	1,241	1,419	1,173
		35,533	**33,701**	**68,540**	**68,993**
Current Assets					
Trade receivables	5.32	3,118	3,850	1,818	2,274
Other receivables	5.32	9,081	9,231	7,031	6,654
Income tax receivable	5.32	374	168	295	464
Third party balances in Group bank accounts	5.35	153,358	157,598	1,398	1,565
Cash and cash equivalents	5.34	74,608	85,851	22,746	33,970
		240,539	**256,698**	**33,288**	**44,927**
Total Assets		**276,072**	**290,399**	**101,828**	**113,920**
EQUITY & LIABILITIES					
Equity & Reserves					
Share capital	5.37	41,640	50,903	41,640	50,903
Treasury stock	5.37	0	(1,162)	0	(1,162)
Share premium	5.37	157	157	157	157
Reserves	5.37	50,201	51,819	44,922	48,603
Retained earnings	5.37	18,740	17,277	8,055	7,736
Total Equity		**110,738**	**118,994**	**94,774**	**106,237**
Non-current liabilities					
Grants and other long term liabilities		50	50	50	50
Staff retirement obligations	5.38	1,794	2,190	1,118	1,375
Other provisions	5.38	1,360	1,360	1,300	1,300
Deferred tax liability	5.36	1,483	1,568	0	0
		4,687	**5,168**	**2,468**	**2,725**
Current liabilities					
Trade and other payables	5.39	6,305	7,697	2,408	2,647
Third party balances in Group bank accounts	5.35	153,358	157,598	1,398	1,565
Social Security		984	942	780	746
		160,647	**166,237**	**4,586**	**4,958**
Total Liabilities		**165,334**	**171,405**	**7,054**	**7,683**
Total Equity & Liabilities		**276,072**	**290,399**	**101,828**	**113,920**

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

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4.3. Annual Statement of Changes in Equity

4.3.1. Group

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2017	**70,598**	**(18,634)**	**157**	**70,119**	**18,452**	**140,692**
Earnings for the period	0		0	0	3,076	3,076
Actuarial profit/ (loss) from defined benefit pension plans	0	0	0	0	(27)	(27)
Profits/(losses) from valuation of financial assets available for sale	0	0	0	(527)	0	(527)
Total comprehensive income after taxes	**0**		**0**	**(527)**	**3,049**	**2,522**
Earnings distribution to reserves				302	(302)	0
Cancellation of treasury stock	(4,006)	22,081		(18,075)		0
Share buy back	0	(4,609)				(4,609)
Share capital return	(15,689)				0	(15,689)
Dividends paid					(3,922)	(3,922)
Balance 31.12.2017	**50,903**	**(1,162)**	**157**	**51,819**	**17,277**	**118,994**
Adjustment due to the adoption of IFRS9 (note 5.37)	0	0	0	(1,575)	1,575	0
Balance 01.01.2018	**50,903**	**(1,162)**	**157**	**50,244**	**18,852**	**118,994**
Earnings for the period	0		0	0	3,027	3,027
Actuarial profit/ (loss) from defined benefit pension plans				0	6	6
Earnings/(losses) from valuation of financial assets available for sale				(1,117)		(1,117)
Total comprehensive income after taxes	**0**	**0**	**0**	**(1,117)**	**3,033**	**1,916**
Earnings distribution to reserves	0	0	0	114	(114)	0
Cancellation of treasury stock	(173)	1,162		(989)	0	0
Formation of real estate revaluation reserves				1,949		1,949
Share capital return (note 5.37)	(9,090)	0	0	0	0	(9,090)
Dividends paid (note 5.44)	0	0	0	0	(3,029)	(3,029)
Balance 31.12.2018	**41,640**	**0**	**157**	**50,201**	**18,740**	**110,738**

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

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4.3.2. Company

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2017	**70,598**	**(18,634)**	**157**	**66,958**	**10,336**	**129,415**
Earnings for the period	0		0	0	1,586	1,586
Actuarial profit/ (loss) from defined benefit pension plans	0		0	0	(16)	(16)
Profits/(losses) from valuation of financial assets available for sale	0		0	(527)	0	(527)
Total comprehensive income after taxes	**0**	**0**	**0**	**(527)**	**1,570**	**1,043**
Earnings distribution to reserves				248	(248)	0
Share buy back		(4,609)				(4,609)
Cancellation of treasury stock	(4,006)	22,081		(18,075)		
Return of share capital	(15,689)					(15,689)
Dividends paid					(3,922)	(3,922)
Balance 31.12.2017	**50,903**	**(1,162)**	**157**	**48,603**	**7,736**	**106,238**
Adjustment due to the adoption of IFRS9 (note 5.37)				(1,575)	1,575	
Balance 01.01.2018	**50,903**	**(1,162)**	**157**	**47,028**	**9,311**	**106,237**
Earnings for the period	0		0	0	1,769	1,769
Actuarial profit/ (loss) from defined benefit pension plans				0	4	4
Profits/(losses) from valuation of financial assets available for sale				(1,117)		(1,117)
Total comprehensive income after taxes	**0**	**0**	**0**	**(1,117)**	**1,773**	**656**
Cancellation of treasury stock	(173)	1,162		(989)	0	0
Share capital return (note 5.37)	(9,090)		0	0	0	(9,090)
Dividends paid (note 5.44)					(3,029)	(3,029)
Balance 31.12.2018	**41,640**	**0**	**157**	**44,922**	**8,055**	**94,774**

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

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4.4. Annual Cash Flow Statement

	Notes	Group		Company	
		1.1-31.12.2018	1.1-31.12.2017	1.1-31.12.2018	1.1-31.12.2017
Cash flows from operating activities					
Earnings before tax	5.28	4,008	5,078	2,438	2,400
Plus / (minus) adjustments for					
Depreciation	5.29& 5.30	3,504	3,060	1,732	1,571
Grant depreciation		0	(13)	0	
Staff retirement obligations	5.37	(388)	162	(251)	230
Net provisions	5.37	290	600	(97)	200
Revaluation of real estate assets		300	0	300	0
Interest Income	5.34	(565)	(322)	(321)	(180)
Dividends received		0	0	(803)	(803)
Interest and related expenses paid	5.33	135	166	10	49
Plus/ (minus) adjustments for changes in working capital accounts or concerning operating activities					
Reduction/(Increase) in receivables		592	1,785	174	938
(Reduction)/Increase in liabilities (except loans)		(1,350)	650	(205)	753
Reduction/Total adjustments for changes in working capital		**6,526**	**11,166**	**2,977**	**5,158**
Interest and related expenses paid	5.33	(135)	(166)	(10)	(49)
Taxes paid		(1,777)	990	(373)	(263)
Net inflows / outflows from operating activities (a)		**4,614**	**11,990**	**2,594**	**4,846**
Investing activities					
Purchases of tangible and intangible assets	5.28 & 5.29	(3,253)	(2,256)	(1,773)	(1,184)
Payment of participation in EnEx		(1,050)		(1,050)	0
Interest received	5.33	565	322	321	180
Dividends received		0	0	803	803
Total inflows / (outflows) from investing activities (b)		**(3,738)**	**(1,934)**	**(1,699)**	**(201)**
Financing activities					
Special dividend (share capital return)	5.39	(9,090)	(15,689)	(9,090)	(15,689)
Share buy back	5.36		(4,611)		(4,611)
Dividend payments	5.49	(3,029)	(3,922)	(3,029)	(3,922)
Total outflows from financing activities (c)		**(12,119)**	**(24,222)**	**(12,119)**	**(24,222)**
Net increase/ (decrease) in cash and cash equivalents from the beginning of the period (a) + (b) + (c)		**(11,243)**	**(14,166)**	**(11,224)**	**(19,577)**
Cash and cash equivalents at start of period	**5.33**	**85,851**	**100,017**	**33,970**	**53,547**
Cash and cash equivalents at end of period	**5.33**	**74,608**	**85,851**	**22,746**	**33,970**

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the annual financial statements of 31.12.2018.

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5. NOTES TO THE 2018 ANNUAL SEPARATE & CONSOLIDATED FINANCIAL STATEMENTS

5.1. General information about the Company and its subsidiaries

The Company "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX)" with the commercial name "ATHENS STOCK EXCHANGE" was founded in 2000 (Government Gazette 2424/31.3.2000) and has General Electronic Commercial Registry (GEMI) No 3719101000 (former Companies Register No 45688/06/B/00/30). Its head office is in the Municipality of Athens at 110 Athinon Ave, Postal Code 10442. The shares of the Company are listed in the Main Market segment of the Athens Exchange cash market. Following the completion of the merger with the Athens Exchange (decision K2-7391/19.12.2013 of the Deputy Minister of Development and Competitiveness) based on its Articles of Association the company's purpose is:

- the participation in companies and business of any legal form having activities related to the support and operation of organized capital markets, as well as the development of activities and provision of services related to the support and operation of organized capital markets, in companies that it participates and in third parties that participate in organized capital market or that support their operation.
- the organization and support of the operation of a cash market, a derivatives market, as well as other financial means (including any type of product with any kind of reference values) in Greece and abroad.

At the end of 2013 the following corporate actions were completed: a) by the approval decision (K27391/19.12.2013) of the Deputy Minister of Development and Competitiveness, HELEX absorbed ATHEX and as a result carries out itself trading (organization and operation of securities and derivative markets as well as other financial instruments) at the Athens Exchange and b) by the approval decision (39079/19.12.2013) of the Chairman of Thessaloniki Chamber of Commerce and Industry (TCCI), the spin-off of the Central Securities Depository business, the Registry and Settlement services, as well as the management of the Dematerialized Securities System, and contribution to HCSD in accordance with law 2166/1993; as a result the abovementioned activities are now being carried out by the Central Securities Depository S.A. (ATHEXCSD).

The annual financial statements of the Group and the Company for 2018 have been approved by the Board of Directors on 18.3.2019. The financial statements have been published on the internet, at www.athexgroup.gr. The six month and the annual financial statements of the subsidiaries of the Group ATHEXCSD and ATHEXClear are published at www.athexgroup.gr, even though they are not listed on the Athens Exchange.

The companies in which the parent company participates with their relevant activities and participation percentages, which are included in the consolidated financial statements (with the full consolidation method), are:

Company	**Hellenic Central Securities Depository (ATHEXCSD)**	
Head Office	Athens	
Activity	Settlement of off-exchange transfers on transferrable securities. The provision of registration and settlement on dematerialized securities, listed and non-listed on the Athens Exchange or on other exchanges or other organized cash markets. The provision of services concerning: distribution of dividends, interest payment, distribution of securities, intermediation in the transfer of options or stock options without consideration and carrying out any activity related to the above. The development, management and exploitation of the IT and operating system for registering dematerialized securities. Carrying out commercial activities to promote and provide IT services and use / broadcast Market Data from Greece and abroad as a Data Vendor, as well as in general the promotion, distribution, support, monitoring, operation and commercial exploitation of products, systems and customized software applications based on corresponding licenses to resell and commercially exploit.	
% of direct participation	**31.12.2018**	**31.12.2017**
ATHEX	100%	100%
ATHEX GROUP	100%	100%

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Company	Athens Exchange Clearing House (ATHEXClear)	
Head Office	Athens	
Activity	Management of clearing systems and / or central counterparty, as well as comparable mechanisms with similar characteristics and / or a combination of these systems in order to carry out, in Greece and/or abroad, the activities of finalizing or reconciling or settling the finalization of transactions in financial instruments and in general the operation as a System administrator in accordance with the provisions of article 72 of Law 3606/2007 (Government Gazette A/195/17.8.2007), as it applies.	
% of direct participation	**31.12.2018**	**31.12.2017**
ATHEX	100%	100%
ATHEX GROUP	100%	100%

The ATHEX Group, despite being the entity operating the market for derivative financial products, and possessing the systems (OASIS, DSS) through which transactions in derivative products take place, does not use such products for its own account. Following the approval (decision 20153/15.7.2010) by the Athens Prefecture for the spin-off of the clearing of trades at ATHEX business from HELEX and its contribution to ATHEXClear, in accordance with Law 2166/1993, starting on 16.7.2010 ATHEXClear clears trades at Athens Exchange. ATHEXClear, a subsidiary of the Company, is a central counter-party and performs the clearing for every trade, but does not report these trades. The margin deposited to an account belonging to investors, managed by the Member and blocked in favor of ATHEXClear is not reported in the financial statements.

The various types of guarantees that ATHEXClear and the Athens Exchange receive from their Members, in order to acquire and maintain their capacities in the Cash and Derivatives markets are reported.

5.2. Basis of preparation of the Company and Consolidated annual financial statements

The financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standard Board (IASB) and their interpretations as issued by the International Financial Reporting Interpretations Committee (IFRIC) of IASB and adopted by the European Union and are mandatory for fiscal years ending on December 31st 2018. There are no standards and interpretations of standards that have been applied before the date they go into effect.

The attached financial statements have been drafted on the basis of historical cost as modified by the revaluation of specific assets, equity and liabilities to fair values (commercial securities portfolio, assets available for sale) and the principle of "going concern".

The preparation of financial statements in accordance with the International Financial Reporting Standards requires that the Management of the Group make important assumptions and accounting estimates that affect the balances of the Asset and Liability accounts, the disclosure of contingent claims and liabilities on the preparation date of the Financial Statements, as well as the revenues and expenses presented in the fiscal year in question. Despite the fact that these estimates are based on the best possible knowledge of the management of the Company as regards the current conditions, actual results may differ from these estimates in the end.

Estimates and judgments are continuously evaluated, and are based on actual data and other factors, including anticipation of future events that are to be expected under reasonable conditions.

The sectors that require a higher degree of judgment and where the assumptions and estimations are significant for the Financial Statements are noted below:

Income tax

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Current tax obligations, both for the current as well as for previous fiscal years, are calculated based on the amounts that are expected to be paid to the tax authorities, using the tax rates that have been legislated up until the balance sheet date. Income tax in the income statement includes the tax for the current year, as expected to be declared in the income tax declaration, as well as estimated additional tax assessments that may be imposed by the tax authorities during the auditing of the unaudited fiscal years. These assumptions take into consideration past experience and an analysis of current facts and circumstances. As such, the final income tax settlement may deviate from the income tax booked in the financial statements.

If the final tax figure is different than the amount initially recognized, the difference will affect the income tax in the fiscal year the determination of the tax differences takes place (note 5.41).

Provisions for bad debts

Management applies the simplified approach of IFRS 9 to calculated expected credit losses, in accordance with which, impairment loss provision are calculated based on expected credit losses for the duration of the client claims (notes 5.32 & 5.3.25).

The Group and the Company have formed a provision for doubtful debts in order to adequately cover the loss that may be reliably measured and arises from these claims.

Because of the large number of clients, it is not practical to consider the collection of each account separately, and as such, on each financial reporting date, all claims are estimated on the basis of historical trends, as well as estimates on current and future market conditions.

Useful lives of tangible and intangible assets - Valuation

Management makes certain estimates concerning the useful life of depreciable assets. These remaining useful lives are periodically reexamined in order to estimate whether they continue to be appropriate. In addition, management evaluates market conditions in the real estate market and makes estimates regarding their valuation (notes 5.29 & 5.30).

Defined benefits plans

The cost of the benefits for defined benefits plans is calculated using actuarial estimates, which in turn use assumptions about the discount rates, the rate of salary increases, and mortality rates. Due to the long term nature of these plans, these assumptions are subject to significant uncertainty, and are reevaluated on each reporting date.

Management strives to estimate in the best possible manner these parameters on every reporting date when this provision is revised (note 5.20).

Impairment check for participations

The Company carries out the relevant impairment check of their participations when there are impairment indications. In order to perform the impairment check, a determination of the “value in use” of the subsidiaries takes place. This determination of the value in use requires that the future cash flows of each subsidiary be determined, and the appropriate discount rate selected, based on which the present value of the abovementioned future flows is determined (note 5.31).

Deferred tax claims

Deferred tax claims are recognized for all deductible temporary differences and tax losses carried forward to the extent that it is probable that taxable profits will be available in the future to be used against those deductible temporary differences and tax losses carried forward. Important estimates by management are required in order to ascertain the size of the deferred tax claim that may be recognized, based on the possible time and size of future taxable profits in conjunction with the tax planning of the entity (note 5.36).

Contingent liabilities

The existence of contingent liabilities requires that management constantly make assumptions and value judgments regarding the possibility that future events may or may not occur, as well as the effect that these events could have on the activity of the Group (note 5.38).

Estimations – sources of uncertainty

There are no significant assumptions that have been made about the future or other sources of estimation uncertainty which may cause significant risk for material adjustment in the book value of the assets and liabilities in the following fiscal year.

The economic crisis in the country intensifies uncertainty and concern. Following the agreement with the creditors in the EU and the Eurozone however, and the completion of the evaluation of the program by the institutions, Greece is gradually expected to overcome the economic crisis and, supported by the far-reaching and necessary structural changes, enter a growth phase.

Going concern

Management examines the main financial data and, on occasion, the fulfillment of medium term budgets, together with the existing loan conditions, if available, in order to arrive at the conclusion that the assumption of going concern is appropriate for use in preparing the annual financial statements of the Group and the Company.

It is estimated that, following the agreement with the institutions, the signing of the third Memorandum and the implementation of the commitments undertaken, the crisis that the Greek economy faces will gradually be overcome. The positive evaluation of the program by the institutions and the removal of capital controls will help restore a healthy economic environment in Greece. The companies of the Group are very well placed in the domestic and international capital markets, and are well organized in order in order to overcome any adversities they face.

Modifications in the published data of the Group and the Company in the Statement of Comprehensive Income

As part of the effort to provide greater transparency and more meaningful information to investors, a reclassification of accounts in the Statement of Comprehensive Income took place. As a result of these changes, it is necessary that the published data for the corresponding period last year be adjusted accordingly, in order to make the two periods comparable.

The table below presents the classification of the published Statement of Comprehensive Income of the Group and the Company to the new structure / accounts presentation that the Group decided to implement starting in fiscal year 2017.

		Group		Company	
	note	01.01 31.12.2017	01.01 31.12.2017	01.01 31.12.2017	01.01 31.12.2017
		Modified	Published	Modified	Published
Revenue					
Trading	5.7	4,435	4,435	4,435	4,435
Clearing	5.8	8,171	8,171	0	0
Settlement	5.9	1,493	1,493	0	0
Exchange services	5.10	3,148	3,148	3,148	3,148
Depository services	5.11	2,580	2,580	0	0
Clearinghouse services	5.12	172	172	0	0
Data feed	5.13	3,204	3,204	3,482	3,482
IT services	5.14	309	309	263	263
Revenue from re-invoiced expenses	5.15	1,133	1,133	1,032	1,032
New Services (XNET, CP CSE - Sibex, IT etc)	5.16	2,170	2,170	989	989
Other services	5.17	597	597	675	675

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Total turnover		**27,412**	**27,412**	**14,024**	**14,024**
Hellenic Capital Market Commission fee	5.18	(1,063)	(1,063)	(399)	(399)
Total Operating revenue		**26,349**	**26,349**	**13,625**	**13,625**
Costs & Expenses					
Personnel remuneration and expenses	5.19	9,458	9,458	5,387	5,387
Third party remuneration and expenses	5.20	810	810	439	439
Utilities	5.21	671	671	90	90
Maintenance / IT support	5.22	1,270	1,270	924	924
Other Taxes	5.23	1,200	1,200	623	623
Building / equipment management	5.24	514	514	112	112
Marketing and advertising expenses		0	278	0	255
Participation in organizations expenses		0	315	0	296
Insurance premiums		0	403	0	381
Operating expenses		0	1,317	0	1,013
BoG - cash settlement		0	61	0	0
Other operating expenses	5.25	2,374	0	1,945	
Total operating expenses before new activities and depreciation		**16,297**	**16,297**	**9,520**	**9,520**
Re-invoiced expenses	5.26	977	977	821	821
Expenses from new activities (XNET, CSE-SIBEX CP, IT)	5.27	1,092	1,092	247	247
Total operating expenses, including new activities		**18,366**	**18,366**	**10,588**	**10,588**
Earnings before Interest, Taxes, Depreciation & Amortization(EBITDA)		**7,983**	**7,983**	**3,037**	**3,037**
Depreciation	5.28 & 5.29	(3,060)	(3,060)	(1,571)	(1,571)
Earnings Before Interest and Taxes (EBIT)		**4,923**	**4,923**	**1,466**	**1,466**
Capital income	5.33	321	321	180	180
Dividend income	5.37	0	0	803	803
Financial expenses	5.33	(166)	(166)	(49)	(49)
Earnings Before Tax (EBT)		**5,078**	**5,078**	**2,400**	**2,400**
Income tax	5.39	(2,002)	(2,002)	(814)	(814)
Earnings after tax		**3,076**	**3,076**	**1,586**	**1,586**

5.3. Basic Accounting Principles

The basic accounting principles adopted by the Group and the Company for the preparation of the attached financial statements are as follows.

1.1.1. Basis for consolidation

(a) Subsidiaries

The Consolidated Financial Statements include the Financial Statements of the Group and its subsidiaries. Subsidiaries are all companies (including special purpose vehicles) whose operation the Group controls. The Group controls a company when it is exposed to, or has rights to, various returns of the company due to its participation in it, and has the ability to affect these returns through its authority over the company.

Subsidiaries are fully consolidated from the date that control is transferred to the Group and cease being consolidated from the date that this control no longer exists.

The Group is using the acquisition method to account for business combinations. The acquisition price for a subsidiary is calculated as the total of the fair values of the assets transferred, liabilities assumed and participation titles issued by the Group. The consideration of the transaction also includes the fair value of the assets or liabilities that arise from a contingent consideration agreement.

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In a business combination the costs related to the acquisition are expensed. The identifiable assets acquired, the liabilities and contingent liabilities are measured at fair value on the acquisition date. In case of a non-controlling participation, the Group either recognizes it at fair value, or at the equity share value of the company acquired.

If an acquisition takes place in stages, the book value of the assets of the company that is acquired and possessed by the Group on the acquisition date is revalued at fair value. The profit or loss from the revaluation at fair value is recognized in the profit and loss statement.

Each contingent consideration provided by the Group is recognized at fair value on the acquisition date. Subsequent changes in the fair value of the contingent consideration, which is considered an asset or a liability, are recognized either in accordance with IAS 39, in the profit and loss statement, or as a change in other comprehensive income. The contingent consideration that is classified as an asset is not revalued and subsequent arrangements take place in equity.

Goodwill initially recognized in the acquisition cost is the excess amount from the total consideration that was paid and the amount recognized as a non-controlling participation, against the net assets that were acquired and the liabilities assumed. Provided that the fair value of assets is greater than the total consideration, the profit from the transaction is recognized in the Statement of Comprehensive Income.

Following the initial recognition, goodwill is measured at cost minus accumulated impairment losses. For the purposes of an impairment test, goodwill created from company acquisitions is distributed after the acquisition date to each cash generating unit of the Group that is expected to benefit from the acquisition, irrespective on whether the assets or liabilities of the acquired firm are transferred to that unit.

If goodwill is allocated to a cash generating unit and part of the activity of that unit is sold, goodwill associated with that part of the activity is included in the book value when determining profit and loss from the sale. In that case, goodwill sold is calculated based on the relative values of the activity sold and the part of the cash flow generating unit that is maintained.

Any losses are distributed to non-controlling participations, even if the balance becomes negative.

In the Statement of Financial Position of the Company, investments in subsidiaries are shown at the acquisition value less any impairment losses. The acquisition value is adjusted in order to incorporate the changes in the consideration from the changes in the contingent consideration.

The financial statements of the subsidiaries are prepared on the same date and use the same accounting principles as the parent Company. Intra-group transactions, balance and accrued profits/ losses in transactions between the companies of the Group are eliminated.

(b) Changes in the participation in subsidiaries without change in control

Transactions with non-controlling participations that result in control of a subsidiary by the Group being maintained are considered equity transactions, i.e. transactions between owners. The difference between the fair value of the consideration paid and the part of the book value of the net assets of the subsidiary company that has been acquired is also recognized in equity.

(c) Sale of subsidiaries

When the Group ceases to have control, any remaining participation is revalued at fair value, while any differences that arise compared to the book value is recognized in the results. Then the asset is recognized as an associate company, joint venture or financial asset at that fair value.

In addition, relevant amounts previously recognized in other comprehensive income concerning that company, are accounted using the same method that the Group would have used in case the assets or liabilities had been liquidated, i.e. they may be transferred to the results.

(d) Participation in affiliated companies

Affiliates are the companies in which the Group exercises material influence under the provisions of IAS 28 but does not exercise control. In general, material influence arises when the Group holds between 20% and 50% of the voting rights. The existence and influence of potential voting rights that are directly exercisable or convertible is taken into account in the assessment of the exercise of material influence by the Group.

Investments in affiliated companies are valued using the equity method. Investments in affiliated companies are initially recorded in the statement of financial position at cost, which is increased or decreased by the proportion of the Group in the results of the affiliated company after the acquisition date. The Group checks on each reporting date, whether there is an indication that an investment in an affiliate is impaired. If there is such an indication, an impairment test is performed, comparing the recoverable amount of the investment with the book value of the investment. If the book value of the investment exceeds its recoverable value, the book value is reduced to the recoverable value.

Impairment losses recognized in previous fiscal years, may be reversed only if there is a change in the assumptions used to determine the recoverable amount of the investor, since the last time that an impairment loss was recognized. In that case, the book value of the investment is increased to the recoverable amount and the increase is a reversal of the impairment loss.

The share of the Group in the results of the affiliated company is recognized in the consolidated Profit & Loss Statement and the share in the reserves is recognized in the reserves of the Group. The accumulated changes in the reserves / results adjust the book value of the investment in the affiliated company. When the share of the Group in the losses of an affiliated company is equal to, or exceeds the participation amount in it, the Group does not recognize any further losses, unless it has incurred obligations, or made payments on behalf of the affiliated company.

Significant gains and losses from transactions between the affiliated company and the Group are eliminated by the percentage held by the Group in it.

Gains or losses from the sale of stakes in affiliated companies are recognized in the Consolidated Profit & Loss Statement. If there is a loss of substantial influence in an affiliated company, the Group measures at fair value any remaining investment in the affiliated company. The difference between the book value of the investment and the fair value on the date the substantial influence was lost is recognized in the results. The fair value of the company that ceases being affiliated, is considered to be the fair value that was determined when the investment was recognized as a financial asset.

1.1.2. Conversion of foreign currencies

Functional and presentation currency

The data in the Financial Statements of the companies of the Group are measured in the currency of the financial environment in which each company functions (functional currency). The consolidated Financial Statements are presented in euro, the functional currency of the parent company.

Transactions and balances

Transactions in foreign currency are converted to the functional currency using the exchange rates in effect on the date of the transactions. Profits and losses that arise from the settlement of transactions in foreign currency, as well as from the valuation, at the end of the fiscal year, of the currency assets and liabilities that are expressed in foreign currency, are booked in the Statement of Comprehensive Income. Foreign exchange differences from non-currency assets that are valued at fair value are considered part of the fair value and are therefore booked just like differences in fair value.

1.1.3. Tangible assets

Investments in real estate

Investments in real estate are those assets which are owned either for rental income or for capital gains or both. Plots of land and buildings are the only investments considered investments in real estate.

Investments in real estate are initially measured at cost. Initial cost includes transaction expenses: professional and legal expenses, transfer taxes and other direct costs.

Following the initial measurement, investments in real estate are measured at cost minus accumulated depreciation.

Transfers to investments in real estate only take place when the purpose of their use changes, as demonstrated with the end of their use, the start of a long term financial lease to third parties or the completion of their construction or development. Transfers from investments in real estate only take place when there is a change in use, as demonstrated by the start of their use by the Group or the start of development with the intent to sell.

For a transfer from investments in real estate that is presented at fair value to owner-occupied property, the cost of the property for subsequent accounting treatment (in accordance with IAS 16), is the acquisition cost minus accumulated depreciation.

Depreciation of investments in real estate (except plots of land which are not depreciated) is calculated using the straight line method for the duration of their useful life, which is estimated at 25 years.

The useful life of investments in real estate and their salvage values are revised annually. When the book value of investments in real estate exceeds their recoverable value, the difference (impairment) is recognized as an expense in the Statement of Comprehensive Income.

Tangible owner-occupied assets

Real estate (plots of land – buildings) belonging to fixed assets are recorded at their adjusted values, during the first application of IFRS, and subsequently at fair value which is based on estimated made by independent estimators, less future building depreciation. Estimations are made regularly in order for the fair value of the adjusted asset not to differ significantly from its book value.

Other tangible assets used are recorded in the financial statements at acquisition cost minus accumulated depreciation and any value impairment provisions. The acquisition cost includes all the direct expenses for the acquisition of the assets.

Later expenses are recognized as an increase in the book value of the tangible fixed assets or as a separate asset only if it is probable that future financial benefits will flow to the Group, and the cost can be reliably measured.

The cost of repairs and maintenance is recognized in the Statement of Comprehensive Income when incurred.

Depreciation of other tangible assets (except plots of land which are not depreciated) is calculated using the straight line method during their useful life.

The useful lives of tangible assets are shown below:

	Useful life after 1.1.2014
Buildings and construction	25 years ή 4%
Machinery	5 years ή 20%
Means of transportation	6.25 years ή 16%
Other equipment	5-10 years ή 20-10%

The useful life of tangible assets and their salvage values are revised annually. When the book value of the fixed assets exceeds their recoverable value, the difference (impairment) is recognized as an expense in the Statement of Comprehensive Income.

When tangible assets are retired or sold, the associated cost and the accumulated depreciation are eliminated from the relevant accounts at the time the asset is retired or sold, and the associated profits or losses are recognized in the Statement of Comprehensive Income.

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1.1.4. Intangible assets

Intangible assets include software licenses valued at the acquisition cost minus accumulated depreciation and any impairment. Depreciation is calculated using the straight line method during the useful life of these assets, which is budgeted to 5 years.

It is noted that the depreciation rate applied by the Group for development – upgrade of its core systems is 20% for expenses capitalized starting on 1.1.2018, and 10% for previous expenses.

1.1.5. Impairment of non-financial assets

The Company and the Group examine at each date of the financial statements, whether there are impairment indications for non-financial assets. The book values of assets are revised for any impairment, whenever events or changed circumstances indicate that the book value may not be recoverable. When the book value of an asset exceeds its recoverable value, an impairment loss is recognized in the Statement of Comprehensive Income. The recoverable amount is calculated as the greater of the fair value less sale expenses and value-in-use.

The fair value less sale expenses is the amount that results from the sale of an asset in an independent transaction between informed and willing parties, after subtracting all additional direct sale expenses, while the value-in-use is the present value of the estimated future cash flows that are expected to occur from the continuous use of the asset and its disposal at the end of its useful life. In order to evaluate the impairment, the assets are grouped at the lowest level for which there are discrete recognizable cash flows.

1.1.6. Financial instruments

A financial instrument is any contract that simultaneously creates a financial asset for one financial entity and a financial liability or participatory title for another financial entity.

Initial recognition and subsequent measurement of financial assets

Starting on 1 January 2018, financial assets are classified, when initially recognized, and subsequently measured at amortized cost, at fair value through other comprehensive income or at fair value through results. The classification of financial assets when initially recognized is based on the contractual cash flows of the financial assets and the business model within which the financial asset is kept.

Excluding client claims, the Group initially values a financial asset at fair value plus the transaction costs, in case of a financial asset that is not valued at fair value through results. Client claims are initially valued at transaction cost as specified by IFRS 15.

In order to classify and value a financial asset (excluding equity securities) at amortized cost or at fair value through other comprehensive income, cash flows that constitute "exclusively principal and interest payments" on the outstanding balance of capital. This assessment is known as SPPI ("Solely Payments of Principal and Interest") criterion and is made at the level of the individual financial instrument.

Following initial recognition, financial assets are classified in three categories

- At amortized cost
- At fair value through other comprehensive income
- At fair value through results

The Group and the Company do not possess assets that are value at fair value through results on 31 December 2018.

Financial assets are amortized cost

Financial assets recorded at amortized cost are later valued based on the Effective Interest Rate (EIR) method and are subject to an impairment test of their value. Profits and losses are recognized in the results when the asset ceases to be recognized, modified or impaired.

Financial assets classified at fair value through comprehensive income

At initial recognition, the Group can choose to irrevocably classify participatory investments as participatory titles at fair value through comprehensive income when they fulfil the definition of equity position in accordance with IAS 32 Financial instruments: Presentation, and are not held for trading. Classification takes place for each financial instrument individually.

Profits and losses from these financial assets are never recycled in profits or losses. Dividends are recognized as other revenue in the profit and loss statement when the right to payment has been established, unless the Group benefits from that revenue to recuperate part of the cost of the financial asset, in which case this income is recognized in the statement of comprehensive income. Equity instruments identified at fair value through comprehensive income are not subject to an impairment test.

The Group chose to classify the listed company shares in its possession in this category.

Impairment of financial assets

The Group and the Company evaluate at each reporting date information concerning whether the value of a financial asset or a group of financial assets has been impaired as follows:

For client claims and contractual assets, the Group and the Company apply the simplified approach to calculate expected credit losses. Therefore, at each reporting date, the Group and the Company measure the loss provision for a financial asset in an amount equal to the expected credit losses for the duration, without monitoring changes in credit risk.

Derecognition of financial assets

A financial asset (or part of a financial asset or part of a group of similar financial assets) is derecognized when:

- The rights to the inflow of cash resources have expired
- The Group or the Company retains the right to the inflow of cash flows from the financial asset, but has also assumed the obligation to pay them to third parties in full, without substantial delay, in the form of a transfer agreement, or
- The Group or the Company has transferred the right to the inflow of cash flows from the asset and at the same time has either (a) essentially transferred all risks and benefits from it, or (b) has not essentially transferred all risks and benefits, but has transferred control of the asset.

When the Group or the Company transfers the cash inflow rights from an asset or concludes a transfer contract, it assesses the extent to which it maintains the risks and benefits of ownership of the asset. When the Group neither transfers nor substantially maintains all risks and benefits of the asset being transferred and maintains control of the asset, then the asset is recognized to the extent that there is continuous participation of the Group in that asset. In that case, the Group also recognizes a related obligation. The transferred asset and the related liability are measured on a basis that reflects the rights and commitments that the Group or the Company have maintained.

Initial recognition and subsequent measurement of financial obligations

All financial liabilities are initially valued at fair value less transaction costs in case of loans and payables.

Derecognition of financial obligations

A financial obligation is deleted when the commitment resulting from the obligation is cancelled or expires. When an existing financial obligation is replaced by another one by the same creditor but with substantially different conditions, or the conditions of an existing obligation are substantially altered, this exchange or amendment is treated as a derecognition of the original obligation and a recognition of a new obligation. The difference in the corresponding accounting values is recognized in the income statement.

Offsetting financial claims and obligations

Financial claims and liabilities are offset and the net amount is shown in the statement of financial position only when the Group or the Company has a legal right to do so and intends to offset them on a net basis between them or claim the asset and settle the obligation at the same time. The legal right must not depend on future events and must be able to be enforced in the normal course of the work even in the event of default, insolvency or bankruptcy of the company or counterparty.

1.1.7. Other long term claims

Other long term claims may include rent guarantees, guarantees to utilities (OTE, PPC etc.) and other long term duration amounts. Other long term claims are valued at book value using the real interest rate method.

1.1.8. Clients and other trade receivables

Client receivables are initially recognized at fair value, and subsequently valued at amortized cost using the real interest rate, less any impairment losses. On each financial reporting date, all past due or doubtful debts are evaluated in order to determine whether or not a provision for doubtful debts is required. The balance of the particular provision for doubtful debts is appropriately adjusted on each closing date of the financial statements in order to reflect the possible risks.

It is the policy of the Group almost never to write-off any such claims until all possible legal recourse for their collection has been exhausted. Commercial and other short term client claims and debtors are usually settled by the Group and the Company within 60 days, while if they become past due, no late payment fees are charged to clients.

1.1.9. Cash and cash equivalents

Cash and cash equivalents include cash at hand, sight deposits and short term (up to 3 months) investments, having high liquidity and low risk.

For the purposes of preparing the Statement of Cash Flows, cash assets consist of cash and bank deposits, as well as cash equivalents as described above.

1.1.10. Third party balances in ATHEXClear bank accounts

In order to comply with the corporate governance framework defined by Regulation (EU) 648/2012 of the European Parliament and Council (EMIR Regulation), the Company keeps all cash collateral that are being managed by the Company and concern the cash market and the derivatives market, as well as its own cash balances, in an account that it maintains at the Bank of Greece as a direct participant over the internet to the TARGET2-GR Express Transfer of Capital and Settlement System in real time (TARGET2-GR).

Therefore its own cash balance and the balances of third parties (margins) are deposited in the same account that ATHEXClear maintains at the Bank of Greece, and as a result a separation of the assets is necessary in order for the collateral that ATHEXClear collects to be shown separately in the current assets of 31.12.2018 and 31.12.2017. In the Statement of Financial Position of 31.12.2018 and 31.12.2017, they are reported as equal amounts in both current assets and short term liabilities as “third party balances at the bank account of the company” and concern exclusively the margins in the derivatives market that were deposited in the bank account maintained by ATHEXClear at the BoG on 31.12.2018 and 31.12.2017 respectively.

1.1.11. Share Capital

Share capital includes the common stock of the Company that has been issued and is in circulation.

Treasury stock concerns the shares of the Company (EXAE) that are purchased on the Exchange by the Company or subsidiary of the Group, following a decision by the Annual General Meeting of shareholders. The acquisition cost as well as the associated expenses of acquiring treasury stock is, in accordance with IFRS, shown in equity, reducing share capital.

The acquisition cost of treasury stock is shown as reducing Company equity, up until the treasury stock is sold or cancelled.

1.1.12. Current and deferred income tax

Current and deferred tax is calculated based on the Financial Statements in accordance with the tax laws in effect in Greece. Income tax is calculated based on the profits of each company as adjusted in their tax declarations, any additional income tax that is assessed by the tax audits of the tax authorities, and from deferred income taxes based on the enacted tax rates.

Deferred income tax is determined using the liability method and arises from the temporary differences between the book value and the tax basis of the assets and liabilities.

Deferred tax is not recognized when it arises at the initial recognition of an asset or a liability from a transaction that is not a business combination and at the time of the transaction it affects neither the accounting nor the taxable result (profit / loss).

Deferred tax is determined using the tax rates (and tax laws) that have been implemented or effectively implemented until the date of the Financial Statements and are expected to be implemented when the asset in question is recovered or the liability settled.

Deferred tax claims are recognized to the extent that there will be a future tax gain for the offset of the temporary difference that creates the deferred tax claim.

Deferred income tax is determined on the temporary differences that arise from investments in subsidiaries and associated companies, with the exception of the case when reversal of the temporary differences is controlled by the Group and it is probable that the temporary differences will not be reversed in the foreseeable future.

Deferred tax claims and liabilities are offset when there is a legally enforceable right to offset current tax claims and liabilities, and when the deferred tax claims and liabilities concern income tax that is imposed by the same tax authority either to the same taxable entity or to different taxable entities when there is the intention to settle the balances on a net basis.

1.1.13. Employee benefits

Current benefits

Current benefits to employees in cash and in kind are recognized as an expense when they accrue.

Staff retirement obligations

Staff retirement obligations include both defined contributions plans as well as defined benefits plans.

Defined contribution plan

Under the defined contributions plan, the obligation of the company (legal) is limited to the amount agreed to be contributed to the organization (social security fund) which manages the contributions and grants the benefits (pensions, health care etc.).

The accrued cost of the defined contributions schemes is recognized as an expense in the corresponding period.

Defined benefits plan

The defined benefits plan of the Group concerns its legal obligation to pay a lump sum indemnity to each employee upon retirement.

The liability recognized in the Statement of Financial Position for this plan is the present value of the obligation for the defined benefit depending on the accrued right of the employees and in relation to the specific point of time that this benefit is expected to be paid.

The present value of the defined benefit liability is calculated by discounting the future cash outflows with a discount rate equal to the interest rate of long-term, high credit rating corporate bonds that have a duration approximately equal to the pension plan.

The actuarial profits or losses that arise from the adjustments based on historical data are directly recognized in Other Comprehensive Income (note 5.20).

1.1.14. Government grants

Government grants related to the subsidy of tangible assets are recognized when there is reasonable assurance that the grant will be collected and that the Company will comply with the terms and conditions that have been set for payment. When government grants are related to an asset, the fair value is recorded in long term liabilities as deferred revenue and is transferred to the Statement of Comprehensive Income in equal annual installments based on the expected useful life of the relevant asset that was subsidized. When the grant is related to an expense, it is recognized as revenue in the fiscal year required in order for the grant to correspond on a systematic basis to the expenses it is intended to compensate. Grant depreciation is recorded in "Other Revenue" in the Statement of Comprehensive Income.

1.1.15. Provisions and contingent liabilities

Provisions are recognized when:

- the Company has a current commitment (legal or inferred) as a result of a past event;
- it is likely that an outflow of resources incorporating financial benefits will be required to settle the commitment and it is possible to reliably estimate the amount of the commitment.

Provisions are re-examined on the preparation date of the financial statements and are adjusted so as to reflect the best possible estimates.

If the effect of the time value of money is significant, the provisions are recognized on a discounted basis by using an interest rate before taxes that reflects that current market estimates about the time value of money and the risks associated with the liability. When provisions are discounted, the increase in the provision due to the passage of time is recognized as a borrowing cost.

Contingent liabilities are not recognized in the financial statements, but are published, unless the possibility of an outflow of resources which incorporate financial benefits is minimal. Contingent claims are not recognized in the financial statements, but are published provided the inflow of financial benefit is likely.

1.1.16. Revenue Recognition

Revenue includes the fair value of the transactions, net of any taxes recovered, rebates and returns. Intragroup revenue within the Group is eliminated in full. Revenue is recognized to the extent that it is possible that the economic benefits will flow to the Group and the relevant amounts can be reliably measured.

The Group and the Company recognize revenue, excluding interest income, dividends and any other source derived from financial instruments (which are recognized based on IFRS 9), to the extent that they reflect the consideration which the Company is entitled to from the transfer of the goods and services on the basis of a five-step approach:

- Recognition of client contracts
- Recognition of the terms of the contracts
- Determination of the price of the transaction
- Allocation of the price of the transaction according to the terms of the contracts
- Revenue recognition when the Company fulfills the terms of the contracts

The following specific recognition criteria must also be satisfied when revenue is recognized:

Revenue from shares, bonds, ETFs (Trading, Clearing & Settlement)

It concerns Member subscriptions based on trades in the cash market.

Revenue from stock, bond etc. trading is recognized at the time the transaction is concluded and clearing and settlement take place at the Exchange.

Collection for trading in the cash market takes place on the day following trade settlement or the third working day of the following month, provided the Member submits such a request.

Revenue from derivative products

It concerns Member subscriptions based on trades in the derivatives market.

Revenue from the derivatives market is recognized at the time the transaction is cleared at Athens Exchange through ATHEXClear, the transactions clearing entity.

Collection for trading in the derivatives market takes place on the day following trade settlement.

Revenue from Members (fees)

It concerns Member subscriptions and IT services to Members.

Revenue is recognized when the Members are invoiced at the end of each month or quarter in question.

Revenue from listed companies

Revenue concerning subscriptions, one-off fees, company listings, rights issues, and HERMES System services, are recognized at the time the relevant invoices are issued, when the corporate action is completed. Subscriptions are recognized as revenue at the beginning of each quarter.

Revenue from market data vendors

Revenue from this source is recognized at the time of invoicing, together with the completion of the provision of that service.

IT services

Revenue from IT services is recognized at the time the service provided is completed. IT services concern the Exchange trading network and DSS terminal licenses.

Other services

Revenue from other services concern education, rents and the provision of support services, and is recognized at the time the service provided is completed.

Interest income

Interest income is recognized on an accrual basis and with the use of the real interest rate. When there is an impairment indication about claims, their book value is reduced to their recoverable amount, which is the present value of the expected future cash flows, discounted by the initial real interest rate. Next, interest is assessed at the same interest rate on the impaired (new book) value.

Dividends

Dividend income is recognized when the right to collect by the shareholders is finalized; that is, on approval by the General Meeting.

1.1.17. Commercial and other liabilities

Supplier balances and other liabilities are recognized at the cost associated with the fair value of the future payment for the purchase of services rendered. Commercial and other short term liabilities are not interest bearing and are usually settled within 60 days by the Group and the Company.

1.1.18. Expenses

Expenses are recognized in the Statement of Comprehensive Income ("Income Statement") on an accrued basis.

Dividend distribution

The distribution of dividends to shareholders is recognized directly to equity, net of any relevant income tax benefit (until the approval of the financial statements), and is recorded as a liability in the financial statements when distribution is approved by the General Meeting of shareholders.

1.1.19. Profits / (losses) per share

Basic profits / (losses) per share are calculated by dividing the net profits / (losses) that correspond to the shareholders of the parent company by the average weighted number of shares that are in circulation during each year, excluding the average of the common stock that was acquired by the Group as treasury stock.

The adjusted profits / (losses) per share are calculated by dividing the net profit that is distributed to Parent company shareholders (after it is adjusted for the effects of all potential shares that dilute participation) by the weighted average number of shares in circulation during the year (adjusted for the effect of all potential shares that dilute participation), excluding the average of the common stock that was acquired by the Group as treasury stock.

1.1.20. Research and development

Expenditures for research activities that take place with the intention of the Group to acquire new technical knowledge and expertise are recognized in the Statement of Comprehensive Income as an expense when they occur. Development activities presuppose the drafting of a study or a plan for the production of new or significantly improved products, services and processes. Development costs are capitalized only when the cost of development can be reliably measured, the product or the process is productive, feasible technically and commercially, future financial benefits are expected, and the Group has the intention, having at the same time sufficient means at its disposal, to complete the development and use or sell the asset.

The capitalization of expenditures includes the cost of direct consulting service expenses, direct work performed and the appropriate share of general expenses. Other development costs are recognized in the Statement of Comprehensive Income as an expense when they occur.

Development costs that have been capitalized are valued at the acquisition cost less accumulated depreciation and accumulated impairment losses and there is no impairment indication.

Subsequent expenditures are capitalized only when they increase the expected future economic benefits that are incorporated in the specific asset to which they refer. All other expenditures, including expenditures for internally created surplus value and trademarks, are recognized in the Statement of Comprehensive Income.

Depreciation is recognized in the Statement of Comprehensive Income using the straight line method for the duration of the useful life of the intangible assets, starting on the date they are available for use. The useful life for the current and the comparative period in the capitalization of development costs is 10 years until 31.12.2017, while for capitalized development costs starting on 1.1.2018 a 15 year period is used.

The profit or loss that arises from derecognizing an intangible asset is determined as the difference between the net disposal proceeds, if they exist, and the book value of the asset. This profit or loss is recognized in the Statement of Comprehensive Income when the asset is derecognized.

1.1.21. Lease policy

The determination of whether an arrangement contains a lease or not is based on the substance of the transaction on the date the relevant contract is concluded, namely on whether fulfilment of the arrangement depends on the use of one or more assets or whether the arrangement assigns the right to use the asset.

The Group as lessee

Asset leases by third parties where the Group does not assume all risk and asset ownership benefits are treated as operating, and the lease payments are recognized as an expense in the statement of comprehensive income on a consistent basis during the lease.

All leases of the Group are treated as operating leases. They concern office rentals etc.

The Group as lessor

Asset leases to third parties where the Group does not transfer all risks and asset ownership benefits are treated as operating, and the lease payments are recognized as revenue in the income statement on a consistent basis during the lease.

Initial direct costs incurred by lessors during the negotiation of an operating lease are added to the book value of the leased asset and are recognized over the lease duration on the same basis as the lease revenue.

The Group leases office space. These leases are treated as operating leases.

1.1.22. Determination of fair value

The fair value of a financial asset is the price that someone would obtain from the sale of an asset, or someone would pay for transferring the obligation in a real transaction between market participants on the measurement date. The fair value of financial assets in the financial statements on 31 December 2018 was determined using the best possible estimates by management. When there is no data available, or data from active markets is limited, the fair value valuations are derived from management estimates in accordance with the information that is available.

The Group makes the required disclosures concerning fair value measurement through a three-tier hierarchy:

Tier 1: Traded (non-adjusted) prices in active markets for similar assets or liabilities,

Tier 2: Other techniques for which all inflows that have a significant impact in recorded at fair value are observable, either directly or indirectly,

Tier 3: Techniques that use data that have a significant impact on the recorded fair value and are not based on observable market data.

The following tables present the financial assets that are measured at fair value, classified by fair value tier.

The financial assets that are measured at fair value on 31 December 2018 are as follows:

	Tier 1	Tier 2	Tier 3
Asset items			
Owner occupied tangible assets (Plots of land – buildings)			21,975
Financial assets at fair value through other income	561		

The financial assets that are measured at fair value on 31 December 2017 are as follows:

(Amounts in thousand euro unless otherwise noted) 99

	Tier 1	Tier 2	Tier 3
Asset items			
Owner occupied tangible assets (Plots of land – buildings)			20.420
Financial assets at fair value through other income	2.052		

As mentioned in detail in note 5.29, the Group on 31.12.2018 performed an independent assessment of the properties by independent, recognized assessors.

Note 5.29 describes in detail the valuation methodology, the assessment process that was carried out, as well as the relevant information regarding the non-observable data that were used in the assessments of the properties in question.

During the fiscal year there were no transfers between tiers 1 and 2, nor transfers into and out of tier 3 when measuring fair value. In addition, during the same period there was no change in the purpose of any financial asset that would lead to a different classification of that asset.

The amounts with which cash & cash equivalents, claims and short term liabilities are shown in the Statement of Financial Position approach their corresponding fair values due to their short term maturity. As a result, there are no differences between fair values and the corresponding book values of financial assets and liabilities. The Company does not use financial derivative products.

On 31 December 2018 the Group and the Company possessed:

- Plots of land and buildings that are valued at fair value of €19.5m and €5.2m respectively by the Group and €2m and €700 thousand by the Company, and are classified in tier 3,
- Equity titles at fair value through other comprehensive income listed on the Exchange in the amount of €561 thousand that are classified in tier 1.

1.1.23. New standards, amended standards and interpretations

New standards, amended standards and interpretations: Specific new standards, amendments to standards and interpretations have been issued that are mandatory for periods beginning on or after 1.1.2018. The Group's evaluation of the effect of these new standards, amendments to standards and interpretations is as follows:

Standards and Interpretations effective for the current financial year

IFRS 9 *"Financial Instruments"*

IFRS 9 replaces the guidance in IAS 39 which deals with the classification and measurement of financial assets and financial liabilities and it also includes an expected credit losses model that replaces the incurred loss impairment model that was applied under IAS 39. IFRS 9 establishes a more principles-based approach to hedge accounting and addresses inconsistencies and weaknesses in the previous model in IAS 39. The effect from applying the standard to the Group is described in notes 5.32 & 5.35.

IFRS 15 *"Revenue from Contracts with Customers"*

IFRS 15 has been issued in May 2014. The objective of the standard is to provide a single, comprehensive revenue recognition model for all contracts with customers to improve comparability within industries, across industries, and across capital markets. It contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The underlying principle is that an entity recognizes revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. Adoption of this standard by the Group and the Company has no effect.

IFRS 4 (Amendments) *"Applying IFRS 9 Financial instruments with IFRS 4 Insurance contracts"*

(Amounts in thousand euro unless otherwise noted) 100

The amendments introduce two approaches. The amended standard: a) gives all companies that issue insurance contracts the option to recognize in other comprehensive income, rather than profit or loss, the volatility that could arise when IFRS 9 is applied before the new insurance contracts standard is issued; and b) gives companies, whose activities are predominantly connected with insurance, an optional temporary exemption from applying IFRS 9 until 2021. The entities that have elected to defer the application of IFRS 9 continue to apply the existing financial instruments standard—IAS 39. Adoption of this standard by the Group and the Company has no effect.

IFRS 2 (Amendments) *"Classification and measurement of Shared-based Payment transactions"*

The amendment clarifies the measurement basis for cash-settled, share-based payments and the accounting for modifications that change an award from cash-settled to equity-settled. It also introduces an exception to the principles in IFRS 2 that will require an award to be treated as if it was wholly equity-settled, where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority. Adoption of this standard by the Group and the Company has no effect.

IAS 40 (Amendments) *"Transfers of Investment Property"*

The amendments clarified that to transfer to, or from, investment properties there must be a change in use. To conclude if a property has changed use there should be an assessment of whether the property meets the definition and the change must be supported by evidence. Adoption of this standard by the Group and the Company has no effect.

IFRIC 22 "Foreign currency transactions and advance consideration"

The interpretation provides guidance on how to determine the date of the transaction when applying the standard on foreign currency transactions, IAS 21. The interpretation applies where an entity either pays or receives consideration in advance for foreign currency-denominated contracts. Adoption of this standard by the Group and the Company has no effect.

Annual Improvements to IFRS 2014 (2014 – 2016 Cycle)

IAS 28 "Investments in associates and Joint ventures"

The amendments clarified that when venture capital organizations, mutual funds, unit trusts and similar entities use the election to measure their investments in associates or joint ventures at fair value through profit or loss (FVTPL), this election should be made separately for each associate or joint venture at initial recognition.

Standards and Interpretations effective for subsequent periods

IFRS 9 (Amendments) *"Prepayment Features with Negative Compensation"* (effective for annual periods beginning on or after 1 January 2019)

The amendments allow companies to measure particular prepayable financial assets with so-called negative compensation at amortized cost or at fair value through other comprehensive income if a specified condition is met—instead of at fair value through profit or loss.

IFRS 16 *"Leases"* (effective for annual periods beginning on or after 1 January 2019)

IFRS 16 has been issued in January 2016 and supersedes IAS 17. The objective of the standard is to ensure the lessees and lessors provide relevant information in a manner that faithfully represents those transactions. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently.

The Group plans to apply IFRS 16 initially on 1 January 2019, using the modified retrospective approach. Under this approach the Group will a) recognize a lease liability and will measure that lease liability at the present value of the remaining lease payments, discounted using the Group's incremental borrowing rate at the date of initial application and b) recognize a right-of-use asset and measure that right-of-use asset by an amount equal to the lease liability. Subsequent to initial recognition, the Group will a) measure the right-of-use asset by applying the cost model and depreciate it on a straight line basis up to the end of the lease term and b) measure the lease liability by increasing and reducing the carrying amount to reflect interest on the lease liability and lease payments made, respectively. The cumulative effect of adopting IFRS 16, if such need arises, will be recognized as an adjustment to the opening balance of retained earnings at 1 January 2019, with no restatement of comparative information. The Group plans to apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply IFRS 16 to all contracts entered into before 1 January 2019 and identified as leases in accordance with IAS 17 and IFRIC 4. Furthermore, the Group will use the exemptions proposed by the standard on lease contracts for which the lease terms ends within 12 months as of the date of initial application, and lease contracts for which the underlying asset is of low value.

Based on Management's estimation, the impact of adoption of IFRS 16, at the Group Level, is not expected to be significant as the operating leases concern mainly car leases. Regarding the effect of the standard at Company level, and as the operating leases are mainly related to the lease of the property at Athinon Avenue, the Company will also recognize lease liability and right-of-use asset. The estimated impact on the results at Company level is not expected to be significant.

IFRS 17 *"Insurance contracts"* (effective for annual periods beginning on or after 1 January 2021)

IFRS 17 has been issued in May 2017 and supersedes IFRS 4. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the Standard and its objective is to ensure that an entity provides relevant information that faithfully represents those contracts. The new standard solves the comparison problems created by IFRS 4 by requiring all insurance contracts to be accounted for in a consistent manner. Insurance obligations will be accounted for using current values instead of historical cost. The standard has not yet been endorsed by the EU.

IAS 28 (Amendments) *"Long term interests in associates and joint ventures"* (effective for annual periods beginning on or after 1 January 2019)

The amendments clarify that companies account for long-term interests in an associate or joint venture—to which the equity method is not applied—using IFRS 9.

IFRIC 23 *"Uncertainty over income tax treatments"* (effective for annual periods beginning on or after 1 January 2019)

The interpretation explains how to recognise and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment. IFRIC 23 applies to all aspects of income tax accounting where there is such uncertainty, including taxable profit or loss, the tax bases of assets and liabilities, tax losses and credits and tax rates.

IAS 19 (Amendments) *"Plan amendment, curtailment or settlement"* (effective for annual periods beginning on or after 1 January 2019)

The amendments specify how companies determine pension expenses when changes to a defined benefit pension plan occur. The amendments have not yet been endorsed by the EU.

IFRS 3 (Amendments) *"Definition of a business"* (effective for annual periods beginning on or after 1 January 2020)

The amended definition emphasizes that the output of a business is to provide goods and services to customers, whereas the previous definition focused on returns in the form of dividends, lower costs or other economic benefits to investors and others. The amendments have not yet been endorsed by the EU.

IAS 1 and IAS 8 (Amendments) "Definition of a material" (effective for annual periods beginning on or after 1 January 2020)

The amendments clarify the definition of material and how it should be applied by including in the definition guidance which until now was featured elsewhere in IFRS. In addition, the explanations accompanying the definition have been improved. Finally, the amendments ensure that the definition of material is consistent across all IFRS. The amendments have not yet been endorsed by the EU.

Annual Improvements to IFRS (2015 – 2017 Cycle) (effective for annual periods beginning on or after 1 January 2019)

The amendments set out below include changes to four IFRSs. The amendments have not yet been endorsed by the EU.

IFRS 3 "Business combinations"

The amendments clarify that a company remeasures its previously held interest in a joint operation when it obtains control of the business.

IFRS 11 "Joint arrangements"

The amendments clarify that a company does not remeasure its previously held interest in a joint operation when it obtains joint control of the business.

IAS 12 "Income taxes"

The amendments clarify that a company accounts for all income tax consequences of dividend payments in the same way.

IAS 23 "Borrowing costs"

The amendments clarify that a company treats as part of general borrowings any borrowing originally made to develop an asset when the asset is ready for its intended use or sale.

1.1.24. Rounding

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

1.1.25. Effect from the adoption of new IFRSs

The Group implemented, for the first time, IFRS 15 "Income from Contracts with Customers" and IFRS 9 "Financial Instruments" with the method of cumulative effect (i.e. the modified retroactive approach), with the effect of the adoption of these Standards being recognized on the date of initial application (i.e. 1 January 2018). Correspondingly, the information relating fiscal year 2017 has not been restated, i.e. it is classified according to the previous standards, IAS 18, and IAS 39 and the related interpretations.

IFRS 15 Revenue from contracts with customers

IFRS 15 replaces IAS 11 "Construction Contracts", IAS 18 "Revenue" and related interpretations and applies to all revenue arising from contracts with customers, unless such contracts fall within the scope of other standards. The new Standard establishes a five-stage model to measure revenue arising from contracts with customers, as follows:

6. Determination of contract (s) with the customer
7. Determination of the performance obligations.
8. Determination of the transaction price.
9. Allocating the transaction price to the performance obligations of the contract.
10. Recognition of revenue when (or while) an entity fulfils a performance obligation.

The basic principle is that an entity will recognize revenue in a way that reflects the transfer of goods or services to customers in the amount it expects to be entitled in return for these goods or services. It also includes the principles that an entity must apply to determine the measurement of revenue and the time it is recognized. According to IFRS 15, revenue is recognized when the customer gains control over the goods or services, specifying the time of the transfer of the check-either in a given time or in the long term.

As of 1 January 2018, the Group adopted the new standard by applying the modified retroactive approach without any adjustment to comparative information. The new Standard did not have a significant impact on the consolidated financial statements at its application, since there were no significant differences in the implementation of the new accounting policies. Therefore, the application of IFRS 15 did not have any impact retained earnings nor were adjustments necessary for the transition to it.

IFRS 9 Financial instruments

IFRS 9 replaces the provisions of IAS 39 concerning the classification and measurement of financial assets and financial liabilities and also includes a model of expected credit losses which replaces the model of the realized credit losses.

The new provisions for impairment losses, in some cases, result in the expected losses being recognized earlier.

(a) Classification and measurement

IFRS 9 maintains to a large extent the existing requirements of IAS 39 for the classification and measurement of financial liabilities. However, it eliminates the previous categories of IAS 39 for financial assets: held to maturity, loans and receivables and available for sale.

The adoption of IFRS 9 had no effect on the Group's accounting policies concerning financial liabilities.

According to IFRS 9, financial assets after initial recognition will be measured at fair value through the income statement, amortized cost or fair value through the statement of other comprehensive income. The classification is based on the following two criteria: The business model that is followed by the Group for the management of the specific data and the characteristics of their contractual cash flows.

Financial assets (investments in equity instruments) which the Group had designated as available for sale under IAS 39, are now classified as investments in equity instruments and will be measured at fair value through the statement of other comprehensive income. Changes from the valuation of equity instruments are included in the "items that will not be sorted in the future in the profit and loss statement". IFRS 9 allows companies the irrevocable option to measure an investment in an equity instrument title that is not held for trading at fair value through other comprehensive income.

As a result of the implementation of the new standard, the Group transferred an amount of €1,57m from retained earnings to reserves.

(b) Impairment

The adoption of IFRS 9 resulted in a change in the Group’s accounting practices to deal with financial instrument impairment losses as it replaced the handing of IAS 39 for the recognition of incurred losses by recognizing expected credit losses.

Regarding 'Customers', the Group implemented the simplified approach of the standard and calculated the expected credit losses over the lifetime of the claims. To this end, a table was used to calculate the relevant provisions in a way that reflects experience from past events, as well as the forecasts of the future financial situation of customers and the economic environment.

As a result of the implementation of the new standard, the results were burdened by an additional provision for bad debts of €78 thousand for the Group and €57 thousand for the Company.

5.4. Risk Management

General – Risk management environment

A major consideration of the Athens Exchange Group is the management of risk that arises from its business activities.

Athens Exchange Clearing House (ATHEXClear) belongs to the Group; it operates as a central counterparty (CCP) in the clearing of cash and derivatives products, and as such is obliged to satisfy the strict requirements of the

EMIR regulatory framework concerning risk management, under which it has been licensed since 2015. Even though risk management at the Group concerns all companies and risk categories, it is recognized that because of its role in the market, ATHEXClear faces and must manage the most significant risk.

The internal and external legal and regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, the Regulation on the Clearing of Transactions on Derivatives and Regulation (EU) 648/2012 of the European Parliament and Council of July 4th 2012 for OTC derivatives, central counterparties, and trade repositories, known as EMIR (European Market Infrastructure Regulation).

Risk Strategy and Risk Management

In accordance with the strategy of the Group, the risk tolerance level is defined in order to correspond with ATHEXClear's capital adequacy, satisfy the needs of the market, limit costs for participants, maximize the exploitation of business opportunities but also ensure market security and compliance with regulatory requirements.

Organizational structure

Besides the comprehensive measures for ensuring the smooth operation of the systems of the Group, each organizational unit of the Group is responsible for monitoring and managing possible risks in such a way so as to react quickly and effectively in case risk events arise.

Continuing the effort of previous years, in 2018 efforts are made to strength the operation of risk management by ATHEXClear, in order to remain aligned with the EMIR Regulation and to follow international good practices.

In particular, as far as ATHEXClear is concerned, the organizational structure that supports risk management includes the following units:

- *Board of Directors*, which has the final responsibility and accountability regarding the management of the risk management operation of the company. In particular, the Board of Directors defines, determines and documents the appropriate level of risk tolerance and ability of the company to assume risk. In addition, the BoD and senior management ensure that the policies, processes and audits of the company are consistent with the risk tolerance level and the ability of the company to assume risk, and examine ways through which the company recognizes, reports, monitors and manages risks.
- *Risk Committee*, which advises the Board of Directors on matters of risk management.
- *Investments Committee*, which decides on the determination of limits and monitors liquidity risk, determines policies and standards for the investment strategy, financing principles, liquidity management, interest rate risk and management.
- *Risk Management Department*, of the Risk Management & Clearing Division of ATHEXClear, which is sufficiently independent from other departments of the Company, and whose main duty is the comprehensive approach to risks that ATHEXClear faces, in order to recognize them, calculate them and finally manage them. The Risk Management Department possesses the required jurisdiction, the necessary means, know-how and access to all relevant information.
- *Chief Risk Officer*, heading the Risk Management Department, who reports to the Board of Directors on matters of risk management through the Chairman of the Risk Committee, and implements the risk management framework through the policies and procedures that the Board of Directors enacts.
- *Organizational Units* which are responsible for recognizing and managing risks within their scope and participate in overall risk management at the Group.

Risk categories

The Group ensures that it deals with all risks, internal or external, present or future, and especially those that have been recognized as being significant. It is recognized that each service provided by the Group can expose it to any combination of the risks mentioned below.

The usual risks to which, due to the nature of its activities, the Group may be exposed to are:

Financial Risk

- Counterparty risk (credit risk from the default of the clearing obligations by one or more clearing member counterparties)
- Market risk (changes in exchange rates, interest rates, market prices, commodities and volatility), mainly as a result of the appearance of counterparty risk
- Credit risk (mainly from the investment of own assets)
- Liquidity risk (mainly cash flows risk), mainly as a result of the appearance of counterparty risk

Operating Risk

Risk due to a lack or failure of internal procedures and systems, by human factor or external events, including legal risk. Risk corresponding to the security of the IT systems, as in the majority of companies, is now becoming very important, and appropriate measures to contain it are being taken.

Business Risk

Risk due to new competitors, drop in transaction activity, deterioration of local and international economic conditions etc.

Description of categories and main risk factors

Market risk

The Group is exposed to limited market risks in its activities. Potential losses from market risk may arise if there is a clearing member default (counterparty risk), since ATHEXClear is required to transact to cover the portfolios of the defaulted member. In any case, the Group monitors the potential exposure that may lead to market risk and calculates potential funds that it may need to hold against market risk in accordance with the methodology for calculating capital requirements that it applies.

Foreign exchange risk: This risk does not materially affect the operation of the Group, given that transactions with clients & suppliers in foreign currency are limited.

Counterparty and Credit risk

The Group's credit counterparty risk mainly concerns transactions in the cash and derivatives markets, in which ATHEXClear operates as Central Counterparty.

The Hellenic Capital Market Commission, with decisions 5, 6 and 7/556/8.7.2010 granted to ATHEXClear a license to manage and operate systems to clear trades on dematerialized securities (Securities System) and derivatives products (Derivatives System). In this capacity, ATHEXClear assumes the risk that Clearing Members default on their obligations to clear and settle trades, as described in the Rulebooks (credit counterparty risk). In addition, as of 22 January 2015 has been licensed as a Central Counterparty under the EMIR regulation, and has a very strict framework for managing risk.

ATHEXClear has enacted and is implementing a number of mechanisms and financial assets to cover risk, and is responsible for the smooth operation of the system in general, in conjunction with the scope and scale of trades whose clearing it has undertaken. The mechanisms that ATHEXClear applies are described in the "Regulation of Clearing of Transferable Securities Transactions in Book Entry Form," in the "Regulation on the Clearing of Transactions on Derivatives," as well as the relevant decisions of the ATHEXClear BoD.

In order to obtain the status of Clearing Member, the Intermediary or Bank must conform to the minimum specific financial and operational adequacy requirements, as specified in the Clearing Rulebooks; these requirements must be continuously fulfilled during the time the Member is in operation.

Both for the cash market, as well as for the derivatives market, ATHEXClear clears trades assuming the role of Central Counterparty. In order to cover the risk against its clearing members, ATHEXClear monitors and calculates on a daily basis (end-of-day but also during the day in almost real time) the margin for each clearing account of the Clearing Members, and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities.

In addition, it manages the Clearing Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. Based on the margins that have been blocked, the credit limits allocated to members are continuously reviewed, fulfillment of which is monitored in real time during the trading session. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in accordance with the provisions of the Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR, that is the absorption of losses beyond the margins in case of a default by at least two (2) groups of clearing members against which ATHEXClear has the greatest loss from the close-out of their positions in each market (cash, derivatives) separately, under extreme market conditions.

The risk management models and the parameters used are examined as to their effectiveness on a daily basis and under extreme but possible scenarios (Margin/Haircut Back-Testing, Default Fund Coverage under Stress), and are validated on an annual basis by an external, independent specialized consultant.

Besides the counterparty credit risk that ATHEXClear faces, the Group faces credit risk from the investment of its own assets. As part of its Investment Policy, specific principles are defined for investing cash assets. Specifically for ATHEXClear, asset placements are as a rule made at the Bank of Greece, a fact that minimizes its risk exposure.

At the other companies of the Group, short term asset placements not exceeding three months take place at Greek Systemic Banks, in accordance with the Investments Policy set by the Strategic Investments Committee of the ATHEX Group.

The ratings of the Greek Systemic Banks by an International Rating Agency are shown below:

BANK RATING VALUES

			STANDARD & POOR' S				
			Outlook	Long Term Local Issuer Credit	Short Term Local Issuer Credit	Long Term Foreign Issuer Credit	Short Term Foreign Issuer Credit
ALPHA BANK AE	ALPHA GA Equity	GR	STABLE	B-	B	B-	B
EUROBANK ERGASIAS SA	EUROB GA Equity	GR	STABLE	B-	B	B-	B
NATIONAL BANK OF GREECE	ETE GA Equity	GR	STABLE	B-	B	B-	B
PIRAEUS BANK S.A	TPEIR GA Equity	GR	STABLE	B-	B	B-	B
BANK OF GREECE	TELL GA Equity	GR	#N/A	NR	NR	NR	NR
HSBC BANK PLC	MID LN Equity	GB	STABLE	A	A-1	A	A-1

Out of total cash and cash equivalents of the Group amounting to €74.6m, approximately €45m is deposited in Greek systemic banks, and the remaining approximately €29.6m at the Bank of Greece.

Liquidity Risk

Liquidity risk as a whole for the Group is maintained at low levels by maintaining adequate cash.

The main liquidity risk for the Group mainly concerns transactions in the cash market and the derivatives market in which ATHEXClear operates as Central Counterparty.

In particular for ATHEXClear, the aim is to maintain an adequate liquidity level in order to ensure that it is in a position to fulfill its obligations concerning payments or settlement in all currencies that are payable, at the end of each day and / or, if required, on an intraday basis. The estimation of the size of the obligations of ATHEXClear is done both based on its business plan, as well as based on possible, but unforeseen, events.

ATHEXClear's liquidity is monitored based on the criteria imposed by EMIR. On a daily basis, and under extreme but possible market scenaria, it is examined whether cash required will be sufficient, following the default by two (2) groups of clearing members to which ATHEXClear has the greatest demand for liquidity to close-out their positions separately for each market (equities, derivatives). In addition, the overall liquidity needs of ATHEXClear are monitored on a daily basis using liquidity gap analysis.

5.5. Capital Management

The primary aim of the capital management of the Group is to maintain its high credit rating and healthy capital ratios, in order to support and expand the activities of the Group and maximize shareholder value.

There were no changes in the approach adopted by the Group concerning capital management during fiscal year 2018.

5.6. Segment Information

In accordance with the provisions of IFRS 8, the determination of operating segments is based on a "management approach." Based on this approach, information that is disclosed for operating segments must be that which is based on internal organizational and managerial structures of the Group and the Company, and in the main accounts of the internal financial reports that are being provided to the chief operating decision makers. The chief business decision market of the Group is the Chief Executive Officer (Executive member of the BoD).

An **operating segment** is defined as a group of assets and operations exploited in order to provide products and services, each of which has different risks and returns from other business segments. For the Group, the main interest in financial information focuses on operating segments since the company's electronic systems – located at its headquarters - are at the disposal of investors irrespective of their physical location.

On 31 December 2018 the core activities of the Group were broken down in the following operating segments:

Group	Segment information on 31.12.2018						
	Trading	Clearing	Settlement	Data feed	IT - Other *	Exchange services	Total
Revenue	4,299	8,040	3,821	2,891	4,560	2,975	26,586
Capital income	91	171	81	61	97	64	565
Expenses	(3,176)	(5,939)	(2,823)	(2,136)	(3,368)	(2,197)	(19,639)
Depreciation	(567)	(1,060)	(504)	(381)	(601)	(391)	(3,504)
Taxes	(159)	(297)	(141)	(107)	(168)	(109)	(981)
Earnings after tax	**488**	**915**	**434**	**328**	**520**	**342**	**3,027**
Assets	5,238	9,796	4,656	3,522	5,556	3,625	32,393
Cash and cash equivalents	12,064	22,563	10,723	8,113	12,797	8,348	74,608
Other assets	27,340	51,131	24,300	18,386	29,000	18,919	169,076
Total assets	**44,642**	**83,490**	**39,679**	**30,021**	**47,353**	**30,892**	**276,077**
Total liabilities	**26,736**	**50,001**	**23,763**	**17,979**	**28,359**	**18,501**	**165,339**

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Group	Segment information on 31.12.2017						
	Trading	Clearing	Settlement	Data feed	IT - Other *	Exchange services	Total
Revenue	4,435	8,343	4,073	3,204	4,209	3,148	27,412
Capital income	52	98	48	38	49	36	321
Expenses	(3,170)	(5,964)	(2,912)	(2,290)	(3,009)	(2,250)	(19,595)
Depreciation	(495)	(931)	(455)	(358)	(470)	(351)	(3,060)
Taxes	(324)	(609)	(297)	(234)	(307)	(231)	(2,002)
Earnings after tax	**498**	**937**	**457**	**360**	**472**	**352**	**3,076**
Assets	4,909	9,234	4,508	3,546	4,659	3,484	30,340
Cash and cash equivalents	13,890	26,129	12,756	10,035	13,182	9,859	85,851
Other assets	28,185	53,021	25,885	20,362	26,749	20,006	174,208
Total assets	**46,984**	**88,384**	**43,149**	**33,943**	**44,590**	**33,349**	**290,399**
Total liabilities	**27,732**	**52,168**	**25,468**	**20,034**	**26,319**	**19,684**	**171,405**

The distribution of expenses was made based on fixed distribution percentages for each business segment.

* In revenue it includes: revenue from re-invoiced expenses, X-NET revenue from other services.

5.7. Overview of the capital market

The Athens Exchange General Index closed on 31.12.2018 at 613.30 points, 23.6% lower than the close at the end of 2017 (802.37 points). The average capitalization of the market was €52.2bn, increased by 4.0% compared to 2017 (€50.2bn).

The total value of transactions in 2018 (€13.9bn) is 6.1% lower compared to 2017 (€14.8bn), while the average daily traded value was €55.7m compared to €58.8m in 2017, decreased by 5.3%. The average daily traded volume decreased by 48.7% (37.3m shares vs. 72.7m shares).

In the derivatives market, total trading activity dropped by 28.8% (2018: 14.1m contracts, 2017: 19.8m), while the average daily traded volume decreased by 28.0% (56.7 thousand contracts vs. 78.7 thousand).

5.8. Trading

Total revenue from trading in 2018 is analyzed in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Shares	3,690	3,850	3,690	3,850
Derivatives	590	573	590	573
ETFs	3	(2)	3	(2)
Bonds	16	14	16	14
Total	**4,299**	**4,435**	**4,299**	**4,435**

Revenue from stock trading amounted to €3.7m vs. €3.85m in 2017, decreased by 4.2%. The decrease is due to the drop in trading activity in 2018.

Revenue from trading in the derivatives market increased by 3.0% compared to 2017 as the prices of the underlying securities increased (the average market capitalization increased by 4.0% in 2018 compared to 2017). The average revenue per contract increased by 46.4% (2018: €0.142 per contract, 2017: €0.097 per contract).

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5.9. Clearing

Revenue from clearing in 2018 is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Shares	5,443	5,775	0	0
Bonds	16	14	0	0
Derivatives	1,405	1,340	0	0
ETFs	5	4	0	0
Transfers - Allocations (Special settlement instruction)	327	306	0	0
Trade notification instructions	718	732	0	0
Total	**7,914**	**8,171**	**0**	**0**

Revenue from share clearing, which consists of revenue from the organized market and the Common Platform, amounted to €5.4m, decreased by 5.7% compared to 2017.

Revenue from transfers – allocations amounted to €327 thousand, increased by 6.9% compared to 2017, while trade notification instructions amounted to €718 thousand, decreased by 1.9%.

Revenue from transactions clearing in the derivatives market increased by 4.85% compared to 2017 as the prices of the underlying securities increased (the average market capitalization increased by 4.0% in 2018 compared to 2017). The average revenue per contract increased by 46.4% (2018: €0.142 per contract, 2017: €0.097 per contract).

5.10. Settlement

Revenue from this category is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Off-exchange transfers OTC (1)	1,166	1,096	0	0
Off-exchange transfers (2)	207	394	0	0
Rectification trades	5	3	0	0
Total	**1,378**	**1,493**	**0**	**0**

(1) Transactions through DSS operators.

(2) Transfers, public offers, donations.

5.11. Exchange services

This category includes revenue from issuers for quarterly subscriptions and rights issues from ATHEX listed companies, as well as quarterly ATHEX member subscriptions in the cash and derivatives markets. Exchange services are analyzed in the table below:

(Amounts in thousand euro unless otherwise noted) 110

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Corp. actions by listed companies (rights issues etc.) (1)	330	194	335	194
Quarterly subscriptions by listed companies (2)	2,007	2,107	2,007	2,107
Member subscriptions (3)	519	448	519	448
ATHEX listing fees (IPOs) (6)	5	198	0	198
Bonds - Greek government securities	6	9	6	9
Subscriptions of ENA company advisors	11	10	11	10
Revenue from indices (4)	(34)	110	(34)	110
Other services to issuers (listed companies) (5)	131	72	131	72
Total	**2,975**	**3,148**	**2,975**	**3,148**

(1) Fees on corporate actions by listed companies (includes rights issues by companies and the listing of corporate bonds) amounted to €330 thousand (ELVALHALCOR - €208 thousand; ATTICA BANK - €35 thousand; ATTICA GROUP - €22 thousand; TERNA ENERGY - €21 thousand; AUDIOVISUAL - €18 thousand et al.) vs. €194 thousand (FRIGOGLASS - €56 thousand; ALPHA BANK - €50 thousand; ATHENA - €15 thousand; NIKAS - €12 thousand et al.).

(2) Revenue from listed company subscriptions amounted to €2.0m in 2018 vs. €2.1m in 2017, reduced by 4.7%.

(3) Revenue from member subscriptions in the cash market, which depends on members' annual trading activity, amounted to €456 thousand in 2018 vs. €414 thousand in 2017, increased by 10.1%. Revenue from member subscriptions in the derivatives market amounted to €63 thousand in 2018 compared to €34 thousand in 2017, increased by 85.3%. The increase in subscriptions is due to the absence of discounts to members in fiscal year 2018.

(4) Revenue from corresponding ETF index was negative due to the recalculation of charges concerning previous fiscal years resulting in credit notes being issued.

(5) Revenue from other services to issuers increased by 81.94%. This increase is due to the new services of codifying securities and Electronic Book Building, which in 2018 amounted to €80 thousand; there was no corresponding revenue in 2017. Other services includes the digital certificate services as well as "HERMES" services to listed companies (€41 thousand in 2018 vs. €47 in 2017).

(6) Revenue from IPOs at ATHEX was €5 thousand and concerns the listing of CNL CAPITAL at ATHEX. In 2017 the corresponding amount was €198 thousand and concerned: €192 thousand – ADMIE listing, and €6 thousand – BRIQ PROPERTIES listing.

5.12. Depository Services

This category includes revenue from rights issues by listed companies, quarterly operator subscriptions as well as revenue from inheritances etc. Revenue is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Issuers (Rights issues - AXIA LINE et al.) (1)	867	811	0	0
Bonds - Greek government securities	82	136	0	0
Investors	107	95	0	0
Fees from listing at ATHEX (IPOs) (3)	19	213	0	
Operators (2)	1,368	1,325	0	0
Total	**2,443**	**2,580**	**0**	**0**

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(1) Fees on corporate actions by issuers (includes rights issues by listed companies) amounted to €419 thousand in 2018 (ELVALHALCOR - €73 thousand; ATTICA BANK - €65 thousand; ATTICA GROUP - €41 thousand; TERNA ENERGY - €40 thousand; AUDIOVISUAL -€38 thousand; IASO - €27 thousand; NIKAS - €24 thousand; INTRACOM - €24 et al.) vs. €445 thousand in 2017 (FRIGOGLASS - €101 thousand; ALPHA BANK - €95 thousand; ATHENA - €35 thousand; MYTILINEOS - €33 thousand; INTRAKAT - €31 thousand; NIKAS - €31 thousand; TRASTOR - €30 thousand), i.e. reduced by 8.5%, as well as €26 thousand from the listing of corporate bonds (GEKTERNA - €10 thousand; CORAL - €10 thousand; B&F - €6 thousand) compared to €40 thousand in 2017 (MYTILINEOS - €10 thousand; SUNLIGHT - €10 thousand; OPAP - €10 thousand; TERNA ENERGY - €10 thousand). Revenue from the provision of information to listed companies through electronic means was €204 thousand in 2018 vs. €202 thousand in 2017. Revenue from notifications of beneficiaries for cash distributions was €98 thousand compared to €94 thousand in 2017. In addition there is revenue of €45 thousand (€26 thousand in 2017) for bond representative services and €72 thousand from the Electronic Order Book in 2018; there was no such revenue in 2017.

(2) Revenue from operators includes revenues from monthly subscriptions amounting to €1,028 thousand vs. €993 thousand in 2017, and is calculated based on the value of the portfolio of the operators; revenue from authorization number usage amounted to €135 thousand vs. €121 thousand; revenue from opening investor accounts €66 thousand vs. €89 thousand in 2017, as well as other revenue from operators.

(3) Revenue from IPOs at ATHEX was €19 thousand and concerns the listing of CNL CAPITAL. In 2017 revenue from IPOs was €213 thousand and concerned the listing of ADMIE HOLDING - €180 thousand, and the listing of BRIQ PROPERTIES - €33 thousand.

5.13. Clearing House Services

Revenue in this category is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Derivatives market clearing Member subscriptions	126	172	0	0
Total	**126**	**172**	**0**	**0**

5.14. Market data

Revenue from this category includes the rebroadcast of ATHEX and CSE market data, as well as revenue from the sale of statistical information. Revenue from this category is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Revenue from market data	2,849	3,177	3,072	3,453
Revenue from publication sales	42	27	43	29
Total	**2,891**	**3,204**	**3,115**	**3,482**

5.15. IT services

Revenue from this is analyzed in the table below:

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	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
DSS terminal use licenses (1)	161	167	120	121
Services to Members (2)	307	142	307	142
Total	**468**	**309**	**427**	**263**

(1) Revenue from DSS terminal licenses amounted to €161 thousand, reduced by 3.6% compared to 2017.

(2) Revenue from services to Members increased by 116.2% and includes revenue from ARM-APA - €223 thousand (there was no corresponding revenue in 2017); revenue from the use of FIX protocol - €40 thousand, unchanged compared to 2017; as well as revenue from the use of additional terminals - €41 thousand (2017: €42 thousand).

5.16. Revenue from re-invoiced expenses

Revenue from re-invoiced expenses are analyzed in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Exchange trading network (ATHEXNet)	478	495	479	495
General Meeting Services to listed companies (SODALI)	64	74	64	74
Sponsorship revenue -NY, London roadshows - WFE Conf.	366	415	366	415
Travel revenue	4	4	4	3
Revenue from electricity - Colocation	202	145	77	45
Total	**1,114**	**1,133**	**990**	**1,032**

ATHEXnet revenue of €478 thousand concerns the re-invoicing of expenses of the Group for the use of the ATHEX Exchange Transactions network to members. The corresponding expenses are shown in re-invoiced expenses (see note 5.27).

Revenue from sponsorships in 2017 included the amount of €115 thousand that concerned the Energy Exchange.

5.17. Ancillary Services (Colocation, Xnet, LEI)

This category includes support services of other markets as well as new services provided by the Group that are not directly related with its core businesses, such as colocation services, which refer to the concession to use the premises and IT systems of the Group, as well as the provision of software services to third parties. This revenue is analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Revenue from X-NET/InBroker (see table)	570	651	40	17
Support of other markets (CSE)	355	287	223	202
Colocation Services (1)	750	726	722	612
Market Suite	138	151	21	40
Hellenic Capital Market Commission	118	118	118	118
Use of auction platform services - DESFA	50	0	0	0
UNAVISTA LEI - EMIR TR (2)	356	237	0	0
Total	**2,336**	**2,170**	**1,123**	**989**

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(1) The Group offers colocation services from which it received €750 thousand in 2018 (BLOOMBERG, PANTELAKIS SECURITIES, AXIA VENTURES, FORTHNET, MEDNET, CITIGROUP GLOBAL MARKETS, UBS LIMITED, DEUTSCHE BANK A.G, OBRELA SECURITY INDUSTRIES, CREDIT SUISSE SECURITIES, OPAP, SHARELINK, GLOBAL CAPITAL, GUARDIAN TRUST, EGR BROKING LTD, IBG, CAPITAL SECURITIES, MERILL LYNCH INTERNATIONAL) vs. €726 thousand in 2017.

(2) When reporting transactions, liable parties are recognized based on a Legal Entity Identifier (LEI) code, a unique code for each legal entity that is issued in accordance with the ISO17442 standard and supervised by the Regulatory Oversight Committee for the Global Entity Identifier System (LEIROC) that has been appointed by the Financial Stability Board.

Inbroker/InBrokerPlus

ATHEX owns and provides the InBrokerPlus® system on a commercial basis to ATHEX members, as a comprehensive real-time price watch and order routing/management service for end-users (OMS), for capital markets that are supported (ATHEX, CSE, and other foreign markets), as part of the operation of the XNET network by the Group.

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Revenue from X-NET	112	83	37	17
Revenue from Inbroker	458	569	3	0
Total	**570**	**651**	**40**	**17**

For the corresponding expenses, refer to note 5.28.

5.18. Other services

The breakdown in revenue for this category is shown in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Education (1)	137	135	135	132
Rents (2)	324	274	197	197
Provision of support services to listed companies	144	0	344	258
Guarantee forfeitures – penalties	0	78	0	0
Revenue from swift instructions	8	8	0	0
Asset grants	0	13	0	0
Other (3)	29	89	32	88
Total	**642**	**597**	**708**	**675**

(1) Concerns revenue from seminars and certifications.

(2) Rental income for the Group concern the lease of a store in Thessaloniki (monthly lease: €5 thousand); Mayer building (monthly lease: €16.4 thousand); 4th floor of the Athinon Ave. building (€6.2 thousand monthly lease starting on 15.06.2018), and part of the 1st floor of the Athinon Ave. building (€860 monthly lease, starting on 15.10.2018)

(3) Other revenue in 2017 included €23 thousand – currency exchange difference from the provision of liquidity to facilitate XNET settlement.

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5.19. Hellenic Capital Market Commission fee

The operating results of the Group in 2018 include the Hellenic Capital Market Commission (HCMC) fee, which for the Group amounted to €1,019 thousand compared to €1,063 thousand in 2017. This fee is collected and turned over to the HCMC, within two months following the end of each six-month period. The reduction resulted from a corresponding reduction in the revenue of the Group from the trading, clearing and settlement of trades on stocks and derivatives, on which it is calculated.

For the Company, the HCMC fee in 2018 amounted to €369 thousand compared to €399 thousand in 2017.

5.20. Personnel remuneration and expenses

The change in the number of employees of the Group and the Company, as well as the breakdown in staff remuneration is shown in the following table. It should be noted that there have been internal personnel transfers among the companies of the Group in order for the Company to comply in the provision of services with EU Regulations and Hellenic Capital Market Commission decisions.

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Salaried staff	227	221	113	112
Total Personnel	**227**	**221**	**113**	**112**

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Personnel remuneration	6,631	6,695	3,651	3,762
Social security contributions	1,647	1,570	891	871
Termination benefits	544	303	199	99
Net change in the compensation provision (actuarial valuation)	(38)	(48)	(19)	142
Other benefits (insurance premiums etc.)	1,076	938	606	513
Total	**9,860**	**9,458**	**5,328**	**5,387**

The increase in personnel expenses is due to the €241 thousand increase in termination benefits, the €86 thousand increase in insurance premiums, and the €73 thousand increase in other benefits that were paid in 2018 compared to 2017.

Obligations to employees

The changes in the mandatory compensation payments in 2018 and 2017 are shown in detail in the following table:

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	Group	
	31.12.2018	31.12.2017
Amounts recognized in the Statement of Financial Position		
Present values liabilities	1.793.512	1.839.832
Net obligation recognized in the Statement of Financial Position	**1.793.512**	**1.839.832**
Amounts recognized in the Profit & Loss Statement		
Cost of current employment	26.808	30.127

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Net Interest on the liability/asset	29.990	32.935
Regular expense in the Profit & Loss Statement	**56.798**	**63.062**
Cost of personnel reduction / mutual agreements/retirement	799.356	(25.217)
Total expense recognized in the Profit & Loss Statement	**856.154**	**37.845**
Change in the present value of the liability		
Present value of the obligation at the beginning of the period	1.839.832	1.850.253
Cost of current employment	26.808	30.127
Interest expense	29.990	32.935
Benefits paid by the employer	(894.409)	(86.114)
Cost of personnel reduction / mutual agreements/retirement	799.356	(25.217)
Actuarial loss/(profit) - financial assumptions	(29.421)	35.825
Actuarial loss/(profit) - experience of the period	21.356	2.023
Present value of the liability at the end of the period (note 5.38)	**1.793.512**	**1.839.832**
Adjustments		
Adjustments to liabilities from changes in assumptions	29.421	(35.825)
Experience adjustments in liabilities	(21.357)	(2.023)
Total recognized in equity	**8.064**	**(37.848)**
Changes in net liability recognized in the balance sheet		
Net liability at the start of the year	1.839.832	1.850.253
Benefits paid by the employer	(894.409)	(86.114)
Total expense recognized in the Profit & Loss Statement	856.153	37.845
Total amount recognized in equity	(8.064)	37.848
Net Liability at the end of the year(note 5.38)	**1.793.512**	**1.839.832**

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	**Company**	
	31.12.2018	**31.12.2017**
Amounts recognized in the Balance Sheet		
Present values liabilities	1,117,744	1,143,171
Net obligation recognized in the Statement of Financial Position	**1,117,744**	**1,143,171**
Amounts recognized in the Profit & Loss Statement		
Cost of current employment	12,885	11,092
Net Interest on the liability/asset	18,634	17,426
Regular expense in the Profit & Loss Statement	**31,519**	**28,518**
Cost of personnel reduction / mutual agreements/retirement	381,478	(68,369)
Other expense / (revenue)	(1,007)	181,772
Total expense recognized in the Profit & Loss Statement	**411,990**	**141,921**
Change in the present value of the liability		
Present value of the obligation at the beginning of the period	1,143,171	978,992
Cost of current employment	12,885	11,092
Interest expense	18,634	17,426
Benefits paid by the employer	(431,369)	0
Cost of personnel reduction / mutual agreements/retirement	381,478	(68,369)
Additional payments or expenses	(1,007)	181,772
Actuarial loss/(profit) - financial assumptions	(15,461)	20,247
Actuarial loss/(profit) - experience of the period	9,413	2,011
Present value of the liability at the end of the period (note 5.38)	**1,117,744**	**1,143,171**
Adjustments		
Adjustments to liabilities from changes in assumptions	15,461	(20,247)
Experience adjustments in liabilities	(9,413)	(2,011)
Total recognized in equity	**6,048**	**(22,258)**
Changes in net liability recognized in the balance sheet		

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Net liability at the start of the year	1,143,171	978,992
Employer contributions	(431,369)	0
Total expense recognized in the Profit & Loss Statement	411,990	141,921
Total amount recognized in equity	(6,048)	22,258
Net Liability at the end of the year (note 5.38)	**1,117,744**	**1,143,171**

The actuarial assumptions used in the actuarial study for the Group in accordance with IAS 19 are as follows:

Actuarial assumptions	Valuation dates	
	31.12.2018	31.12.2017
Discount rate	1.77%	1.63%
Increase in salaries (long term)	1.00%	1.00%
Inflation	1.00%	1.00%
Mortality table	E V K 2000 (Swiss table)	E V K 2000 (Swiss table)
Personnel turnover	0.50%	0.50%
Regular retirement age	Based on the rules of the Social security fund in which each employee belongs	Based on the rules of the Social security fund in which each employee belongs
Duration of liability	16.20	17.03

The table of sensitivity tests on the discount rate, the annual inflation rate and the salary increase rate for the Company is shown below:

Cash flows *Expected benefits from the plan in the next fiscal year*	Company 31.12.2018	 31.12.2017
Sensitivity scenaria for the economic and demographic assumptions used		
Sensitivity 1 – Discount rate plus 0.5% - % difference in liability present value (PV)	(7.17)%	(7.60)%
Sensitivity 2 - Discount rate minus 0.5% - % difference in liability PV	7.84%	8.33%
Sensitivity 3 – Annual inflation plus 0.5% - % difference in liability PV	7.85%	8.34%
Sensitivity 4 - Annual inflation minus 0.5% - % difference in liability PV	(7.26)%	(7.68)%
Sensitivity 5 - Assumption: salary increase plus 0.5% - % difference in liability PV	6.73%	6.99%
Sensitivity 6 – Assumption: salary increase minus 0.5% - % difference in liability PV	(6.53)%	(6.90)%

5.21. Third party remuneration & expenses

Third party fees and expenses include the remuneration of the members of the BoDs of all the companies of the Group.

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
BoD member remuneration	61	58	52	48
Attorney remuneration and expenses	72	60	72	60
Fees to auditors (1)	75	75	30	30
Fees to consultants (2)	273	435	102	144
Fees to FTSE (ATHEX)	102	132	102	132
Other Fees	26	25	0	0
Fees to training consultants	24	25	24	25
Total	**633**	**810**	**382**	**439**

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(1) Concerns the fees for the regular audit by the certified auditors of the Group, as well as the Tax Compliance Report.

(2) Fees to consultants include fees for consultancy services, actuarial study fees, fees for tax and legal services.

It is noted that the certified auditors of the Group received €75 thousand in 2018 in fees related to the regular audit and the tax certificate. For the Company, total remuneration to the certified auditors amounted to €30 thousand in fees related to the regular audit and the tax certificate.

No other fees, besides the above, were paid in fiscal year 2018 to the certified auditors of the Group and the Company.

5.22. Utilities

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Fixed - mobile telephony - internet	134	168	32	53
Leased lines - ATHEXNet	96	78	30	25
PPC (Electricity)	457	419	12	12
EYDAP (water)	5	6	0	0
Total	**692**	**671**	**74**	**90**

5.23. Maintenance / IT Support

Maintenance and IT support includes expenses for the maintenance of the Group's technical infrastructure and support for the IT systems (technical support for the electronic trading platforms, databases, Registry [DSS] etc.), and are contractual obligations.

5.24. Other taxes

Non-deductible Value Added Tax, and other taxes (Property Tax) that burden the cost of services amounted to €1,154 thousand compared to €1,200 thousand in 2017. For the Company, other taxes amounted to €597 thousand vs. €623 thousand in 2017.

5.25. Building / equipment management

This category includes expenses such as: building and equipment insurance premiums, security and cleaning services, building and equipment maintenance and repairs.

	GROUP		COMPANY	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Cleaning and building security services	353	351	100	101
Building repair and maintenance - other equipment	102	133	10	11
Fuel and other generator materials	18	13	0	0
Communal expenses	18	17	0	0
Total	**491**	**514**	**110**	**112**

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5.26. Other operating expenses

Other operating expenses in 2018 are analyzed in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Bank of Greece (BoG) - cash settlement	50	61	0	0
Consumables	39	49	38	48
Travel expenses (1)	157	133	105	101
Transportation expenses	58	52	43	41
Operation support services	0	0	119	117
Automobile leases	20	18	20	18
Rent expenses	61	61	178	178
Other (2)	414	1,063	(38)	546
BoD member civil liability ins. Premiums (D&O, DFL & PI)	324	358	348	358
Subscriptions to professional organizations & contributions	301	301	266	283
Promotion, reception and hosting expenses	213	212	198	204
Event expenses (3)	248	66	222	51
Total	**1,885**	**2,374**	**1,499**	**1,945**

1. Travel expenses in 2018 were €157 thousand, increased by 18.0%.
2. Other expenses are significantly reduced compared to 2017 which includes €600 thousand in provisions for bad debts, while the corresponding amount in 2018 is €78 thousand. This category also includes publications, stationery, publication postal expenses, storage fees, PC insurance premiums, building fire insurance, means of transport insurance, as well as the subscription to the Hellenic Capital Market Commission. It also includes €217 thousand in claim write-offs in 2018 vs. €254 thousand in 2017, and €123 thousand in provision reversal in 2018 vs. €32 thousand in 2017.
3. Expenses for events in 2018 are significantly increased, due to the hosting of the WFE Congress in Athens, as well as the Small Cap and Mid Cap Conferences (See Promotion Expenses in the Report of the BoD above).

5.27. Re-invoiced expenses

Expenses in this category for 2018 are analyzed in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Leased Lines (ATHEXNet)	357	435	349	428
Sodali expenses (General Meetings)	30	57	30	57
VAT on re-invoiced expenses	70	71	60	71
Promotion, reception and hosting expenses (NY-London roadshows)	303	269	298	265
Electricity consumption - Colocation	191	145	0	0
Other	11	0	11	0
Total	**962**	**977**	**748**	**821**

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The corresponding revenue is shown in note 5.16.

5.28. Expenses for ancillary activities

Expenses on this category are shown in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Expenses from new activities	83	176	82	156
X-NET Expenses (1)	542	543	60	34
Expenses on IT Services to third parties (2)	417	250	57	42
VAT on ancillary services expenses	80	123	0	15
Total	**1,122**	**1,092**	**199**	**247**

1. InBroker Plus expenses for X-NET (the corresponding revenue is described in note 5.17) concern data feed, which is purchased from foreign exchanges in order for the product to be more attractive to a greater range of clients and vendors. In particular, data feed is purchased from the London Stock Exchange, Euronext, Deutsche Börse et al, aiming to widen the investment horizon of investors. XNET expenses are analyzed in the table below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Expenses concerning foreign securities	92	83	54	34
Inbroker Plus data feed expenses	450	460	6	0
Total	**542**	**543**	**60**	**34**

2. Expenses on IT Services amounted to €417 thousand and mainly include the expenses of the LEI – EMIR TR service – €361 thousand vs. €209 thousand in 2017 (the corresponding UNAVISTA LEI revenue is described in note 5.16). 2018 also includes expenses for ORACLE services to CSE - €46 thousand (compared to €41 thousand in 2017), as well as expenses for TRS to the Capital Market Commission of Cyprus - €10 thousand (there was no corresponding amount in 2017).

5.29. Owner occupied tangible assets and intangible assets

It is the policy of the Athens Exchange Group to re-estimate the market value of its real estate every three years. The last real estate estimate took place in March 2016 with the reference date of 31.12.2015. Thus, being consistent with its policy, the Group assigned the study of determining the market value of its properties, in accordance with IFRS, to independent, recognized assessors. The study was completed and submitted at the end of February 2019, and the Group adjusted the value of its properties on 31.12.2018 based on the findings of the study, in order to show in its balance sheet of 31.12.2018 the fair value of its properties.

The valuation report showed a significant difference compared to the book value of the properties as it appeared in the accounting books, and which is mainly due to the building at Athinon Avenue, which is owned by ATHEXCSD. For the other two buildings of the Group, the deviations are minor, while there are also deviations in the values of the plots of land. As a result, it should be noted that the valuation report, at the Group level, reduces by a total of €300 thousand the value of the plots of land, and increases by €2.6m the value of the buildings.

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The following table presents the valuations of the commercial value of the Group's properties as reported in the report of independent property assessors on 31.12.2018.

	Book value	Assessment by independent assessors	Deviation
Building - Athinon Ave			
Plot of land	3.000	3.200	200
Building	14.615	16.950	2.335
	17.615	**20.150**	**2.535**
Building - Katouni (Thessaloniki)			
Plot of land	1.500	1.300	-200
Building	261	525	264
	1.761	**1.825**	**64**
Building - Mayer (Acharnon)			
Plot of land	1.000	700	-300
Building (*)	1.587	2.000	413
	2.587	**2.700**	**113**
Grand total	**21.963**	**24.675**	**2.712**

(*) The amount of €413 thousand concerns goodwill for a property investment, and does not appear in the books of ATHEXCSD and the Group in accordance with IFRS 40.

A. Building on Athinon Avenue

The assumptions and methods used to calculate the fair value of the Athinon Avenue property in accordance with the assessment by the independent assessor include:

Direct capitalization method

For this method, market requirements and uses of the property were taken into consideration, based on the prevailing yields for each space, the fair lease of the property was estimated and then its fair value.

Level	Use	Area (sqm)	Fair lease (€/sqm)	Fair lease (€/month)	Yield	Fair value
Basement (-4)	56 parking spaces	639.06	5	€ 3,195.30	7.50%	€ 511,248
Basement (-3)	53 parking spaces	605.80	5	€ 3,029.00	7.50%	€ 484,640
Basement (-2)	53 parking spaces	605.80	5	€ 3,029.00	7.50%	€ 484,640
Basement (-1)	Data Center	1,878.00	14	€ 26,292.00	7.50%	€ 4,206,720
Basement (0)	Office space	1,126.00	14	€ 15,764.00	7.50%	€ 2,522,240
1st floor (1)	Office space	963.00	14	€ 13,482.00	7.50%	€ 2,157,120
2nd floor (2)	Office space	963.00	14	€ 13,482.00	7.50%	€ 2,157,120
3rd floor (3)	Office space	963.00	14	€ 13,482.00	7.50%	€ 2,157,120
4th floor (4)	Office space	963.00	14	€ 13,482.00	7.50%	€ 2,157,120
5th floor (5)	Office space	963.00	14	€ 13,482.00	7.50%	€ 2,157,120
Total		**9,669.66**		**€ 118,719.30**		**€ 18,995,088.00**
						€ 19,000,000

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Depreciated Replacement Cost method

The surface area indicated in the following table refers to the percentage of all horizontal properties of building A on the whole plot of land, while the surfaces of the building are those resulting from the cover diagram.

Description	Area		Unit price	Replacement cost	Impairment	Market value
	Land (sqm)	Buildings (sqm)	(€/sqm)	(€/sqm)		(€)
Land	2,687.12		1,250			€ 3,358,900
Superstructure areas		7,783.00		1,500	15%	€ 9,923,325
Basement areas		5,692.00		750	15%	€ 3,628,650
Surrounding area						€ 400,000
Electro-mechanical equipment						€ 4,000,000
Total	**2,687.12**	**13,475.00**				**€ 21,310,875.00**
						€ 21,300,000

Value estimate weights

After applying the Income method (Direct Capitalization method) and the Depreciated Replacement Cost method, the two methods are weighted, with weights of 50% each:

Method	Fair value	Weight	Subtotal	Weighted fair value
Income	€ 19,000,000	50%	€ 9,500,000	€ 20,150,000
Replacement cost	€ 21,300,000	50%	€ 10,650,000	
Value distribution				
	Fair value	**€ 20,150,000.00**		
	Value corresponding to the building	€ 16,450,000.00		
	Value corresponding to the plot of land	€ 3,200,000.00		

B. Building on Katouni St - Thessaloniki

The assumptions and methods used to estimate the fair value of the property on Katouni St. in Thessaloniki include a) the comparative method, which is the most basic method of estimating property value and is customary to use for checking after using other methods; b) the direct capitalization method which in effect transfers a revenue stream from the use of the property to an indication of value / capital using an appropriate capitalization rate; and c) the remainder method, which estimates the amount that an investor would be willing to pay to purchase the property in question, in order to repair and subsequently exploit or use.

Direct Capitalization method

For this method, market requirements and uses of the property were taken into consideration, based on the prevailing yields for each space, the fair lease of the property was estimated and then its fair value.

Use	Area (sqm)	Fair lease (€/sqm/month)	Fair lease (€/month)	Lease yield (%)	Fair value (€)
Store	310.08	20.50	6,360	7.75%	985,000
Office space	722.03	8.00	5,775	8.25%	840,000

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Total (horizontal ownership in question):					1,825,000
		Fair value (€)	Value of corresponding plot of land (€)	Value of building (€)	
		1,825,000	1,300,000	525,000	

The book value of the assets of the Group per building on 31.12.2018 is summarily presented in the following table:

Analysis of the Assets of the Group per category in the Statement of Financial Position of 31.12.2018			
	Owner occupied		
	Athinon Ave. building	Katouni building (Thessaloniki)	Total
Plots of land	3,200	1,300	4,500
Construction (*)	16,964	525	17,489
Means of transportation	7	0	7
Electronic systems	1,093	0	1,093
Communication & other equipment	462	0	462
Intangible assets	6,549	0	6,549
Total	**28,275**	**1,825**	**30,100**

(*) The amount includes €14 thousand that concerns investments in third party properties (DR site).

Analysis of the Assets of the Group per category in the Statement of Financial Position of 31.12.2017			
	Owner occupied		
	Athinon Ave. building	Katouni building (Thessaloniki)	Total
Plots of land	3,000	1,500	4,500
Construction	15,562	358	15,920
Means of transportation	7	0	7
Electronic systems	799	0	799
Communication & other equipment	239	0	239
Intangible assets	6,084	0	6,084
Total	**25,691**	**1,858**	**27,549**

Analysis of the Assets of the Group per category in the Statement of Financial Position of 31.12.2018						
	Owner occupied					
	Athinon Ave. Building		Katouni building (Thessaloniki)		Total	
	Plot of land	Building	Plot of land	Building	Plot of land	Building
Book value on 31.12.2018	**3,000**	**14,615**	**1,500**	**261**	**4,500**	**14,876**
Revaluation due to estimate by independent assessor	200	2,335	(200)	264	0	2,599
Adjusted real estate value on 31.12.2018	**3,200**	**16,950**	**1,300**	**525**	**4,500**	**17,475**

The tangible and intangible assets of the Group on 31.12.2018 and 31.12.2017 are analyzed as follows:

Group	TANGIBLE ASSETS & INTANGIBLE ASSETS

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	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total
Acquisition and valuation on 31.12.2016	**4,500**	**26,874**	**127**	**168**	**7,715**	**8,471**	**47,855**
Additions in 2017	0	5	0	0	225	2,031	**2,261**
Reductions in 2017	0	0	0	0	(18)	0	**(18)**
Acquisition and valuation on 31.12.2017	**4,500**	**26,879**	**127**	**168**	**7,922**	**10,502**	**50,098**
Accumulated depreciation on 31.12.2016	**0**	**9,883**	**127**	**151**	**6,516**	**3,031**	**19,708**
Depreciation in 2017	0	1,076	0	10	382	1,387	**2,855**
Accumulated depreciation reduction in 2017	0	0	0	0	(14)	0	**(14)**
Accumulated depreciation on 31.12.2017	**0**	**10,959**	**127**	**161**	**6,884**	**4,418**	**22,549**
Book value							
on 31.12.2016	4,500	16,991	0	17	1,199	5,440	**28,147**
on 31.12.2017	**4,500**	**15,920**	**0**	**7**	**1,038**	**6,084**	**27,549**

Group	TANGIBLE ASSETS & INTANGIBLE ASSETS						
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total
Acquisition and valuation on 31.12.2017	**4,500**	**26,879**	**127**	**168**	**7,922**	**10,502**	**50,098**
Additions in 2018	0	49	0	0	1,026	2,177	**3,252**
Acquisition and valuation on 31.12.2018	**4,500**	**26,928**	**127**	**168**	**8,948**	**12,679**	**53,350**
Accumulated depreciation on 31.12.2017	**0**	**10,959**	**127**	**161**	**6,884**	**4,418**	**22,549**
Depreciation in 2018	0	1,079	0	0	509	1,712	**3,300**
Accumulated depreciation reduction in 2018	0	0	0	0	0	0	**0**
Accumulated depreciation on 31.12.2018	**0**	**12,038**	**127**	**161**	**7,393**	**6,130**	**25,849**
Book value							
on 31.12.2017	**4,500**	**15,920**	**0**	**7**	**1,038**	**6,084**	**27,549**
on 31.12.2018	**4,500**	**14,890**	**0**	**7**	**1,555**	**6,549**	**27,501**
Revaluation due to estimate by independent assessor	0	2,599					**2,599**
Book value after the revaluation on 31.12.2018	**4,500**	**17,489**	**0**	**7**	**1,555**	**6,549**	**30,100**

The tangible and intangible assets of the Company on 31.12.2018 and 31.12.2017 are analyzed as follows:

Company	TANGIBLE ASSETS & INTANGIBLE ASSETS						
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total
Acquisition and valuation on 31.12.2016	**0**	**15**	**103**	**159**	**5,770**	**6,580**	**12,627**
Additions in 2017	0	0	0	0	148	1,036	**1,184**
Reductions in 2017	0	0	0	0	0	0	**0**
Acquisition and valuation on 31.12.2017	**0**	**15**	**103**	**159**	**5,918**	**7,616**	**13,811**

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Accumulated depreciation on 31.12.2016	**0**	**0**	**103**	**146**	**4,870**	**2,467**	**7,586**
Depreciation in 2017	0	1	0	9	282	1,074	**1,366**
Accumulated depreciation reduction in 2017	0	0	0	0	0	0	**0**
Accumulated depreciation on 31.12.2017	**0**	**1**	**103**	**155**	**5,152**	**3,541**	**8,952**
Book value							
on 31.12.2016	**0**	**15**	**0**	**13**	**900**	**4,113**	**5,041**
on 31.12.2017	**0**	**14**	**0**	**4**	**766**	**4,075**	**4,859**

Company	**TANGIBLE ASSETS & INTANGIBLE ASSETS**						
	Plots of Land	**Building and Construction**	**Machinery & other equip.**	**Means of Transportation**	**Furniture fittings and equip.**	**Intangible Assets**	**Total**
Acquisition and valuation on 31.12.2017	**0**	**15**	**103**	**159**	**5,918**	**7,616**	**13,811**
Additions in 2018	0	0	0	0	499	1,275	**1,774**
Reductions in 2018	0	0	0	0	0	0	**0**
Acquisition and valuation on 31.12.2018	**0**	**15**	**103**	**159**	**6,417**	**8,891**	**15,585**
Accumulated depreciation on 31.12.2017	**0**	**1**	**103**	**155**	**5,152**	**3,541**	**8,952**
Depreciation in 2018	0	0	0	0	352	1,176	**1,528**
Accumulated depreciation reduction in 2018	0	0	0	0	0	0	**0**
Accumulated depreciation on 31.12.2018	**0**	**1**	**103**	**155**	**5,504**	**4,717**	**10,480**
Book value							
on 31.12.2017	**0**	**14**	**0**	**4**	**766**	**4,075**	**4,859**
on 31.12.2018	**0**	**14**	**0**	**4**	**913**	**4,174**	**5,105**

Intangible assets include the amounts of €643 thousand for the Group and €216 thousand for the Company and concern the capitalization of expenses (CAPEX creation) for systems development by the Group in 2018. Starting on 1.1.2018 the depreciation rates for expenses capitalized in 2017 were changed. Henceforth capitalized expenses will be depreciated in 5 years. The annual charge from this change is €89 thousand. Expenses made before 1.1.2017 will be depreciated in 10 years as before.

The management of the Group estimates that there are no impairment indications on the owner occupied buildings of the Group.

On 31.12.2018 there were no encumbrances on the assets of the companies of the Group.

5.30. Real Estate Investments

Building (at Acharnon & Mayer)

The Company carried out an impairment test on this property based on IAS 36. Based on the impairment test that was carried out, an impairment loss of €300 thousand arose, which concerned the value of the plot of land. For the impairment test that was carried out, the Company used independent, recognized assessors.

The valuation report of the real estate investments did not show a significant difference compared to the book value of the property as shown in the books of the Company. The property valuation report for the Acharnon St. building shows a reduction in the value of the plot of land by €300 thousand. It should be noted that goodwill amounting to €413 thousand arising from the building assessment does not increase its book value as there was no a previous valuation loss.

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The value assessed was the average resulting from the application of the annuity methods and comparative data on the transition date. The calculation took into account the current lease as the contractual time expires in 2021. This building is leased, with an annual lease payment of €196.8 thousand (€16.4 thousand per month) (see note 5.18).

No	Level	Use / Description	Area	Fair lease (€/month)	Yield (%)	Fair value
			(sqm)	(€/sqm)		(€)
1	Basement (-1)	Storage space, engine room	421.60	2	9.50%	106,509
2	Ground floor (0)	Reception, cafeteria, office space, power substation	224.62	6	8.50%	190,266
3	Mezzanine	Control room, storage space	45.00	2	8.50%	12,706
4	1st floor (1)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
5	2nd floor (2)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
6	3rd floor (3)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
7	4th floor (4)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
8	5th floor (5)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
9	6th floor (6)	Office space, kitchen, WC, storage space	421.60	6	8.50%	357,120
10	7th floor (7)	Office space, kitchen, WC, storage space	280.90	6	8.50%	237,939
	Total		3,526.72			2,690,141
				rounding		2,700,000

The above fair value includes 100% of the full ownership of all properties, without taking into consideration horizontal properties.

The total replacement cost of the property is derived from the following calculations table:

No	Level	Use / Description	Area	Cost	Cost
			(sqm)	(€/sqm)	(€)
1	Basement (-1)	Storage space, engine room	421.60	400.00	168,640
2	Ground floor (0)	Reception, cafeteria, office space, power substation	224.62	825.00	185,312
3	Mezzanine	Control room, storage space	45.00	825.00	37,125
4	1st floor (1)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
5	2nd floor (2)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
6	3rd floor (3)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
7	4th floor (4)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
8	5th floor (5)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
9	6th floor (6)	Office space, kitchen, WC, storage space	421.60	825.00	347,820
10	7th floor (7)	Office space, kitchen, WC, storage space	280.90	825.00	231,743
11	Roof	Staircase, lift, engine room, roof	25.00	400.00	10,000
	Total		3,501.72		2,719,739
Average aging / year: 1.5% Age 18 years					0.73
					1,985,409
				rounding	2,000,000

Finally, the distribution of value between that corresponding to the horizontal ownership of the plot of land and of the structure is as follows: plot of land: €700 thousand; building €2.0m.

The book value of the investments in real estate for the Group and the Company on 31.12.2018 and 31.12.2017 is shown in the following table:

(Amounts in thousand euro unless otherwise noted) 126

Group - Company	TANGIBLE ASSETS			
	Plots of Land	Buildings and Construction	Furniture and fixtures	Total
Acquisition and valuation on 31.12.2016	**1,000**	**5,110**	**88**	**6,198**
Additions in 2017	0	0	0	0
Reductions in 2017	0	0	0	0
Acquisition and valuation on 31.12.2017	**1,000**	**5,110**	**88**	**6,198**
Accumulated depreciation on 31.12.2016	**0**	**3,114**	**88**	**3,202**
Depreciation in 2017	0	205	0	205
Accumulated depreciation on 31.12.2017	**0**	**3,319**	**88**	**3,407**
Book value				
on 31.12.2016	**1,000**	**2,200**	**0**	**2,996**
on 31.12.2017	**1,000**	**1,791**	**0**	**2,791**

Group - Company	TANGIBLE ASSETS			
	Plots of Land	Buildings and Construction	Furniture and fixtures	Total
Acquisition and valuation on 31.12.2017	**1,000**	**5,110**	**88**	**6,198**
Additions in 2018	0	0	0	0
Reductions in 2018	0	0	0	0
Acquisition and valuation on 31.12.2018	**1,000**	**5,110**	**88**	**6,198**
Accumulated depreciation on 31.12.2017	**0**	**3,319**	**88**	**3,407**
Depreciation in 2018	0	204	0	204
Accumulated depreciation reduction in 2018	0	0	0	0
Accumulated depreciation on 31.12.2018	**0**	**3,523**	**88**	**3,611**
Book value				
on 31.12.2017	**1,000**	**1,791**	**0**	**2,791**
on 31.12.2018	**1,000**	**1,587**	**0**	**2,587**
Value adjustment due to independent assessor assessment	(300)			(300)
Book value after revaluation on 31.12.2018	**700**	**1,587**	**0**	**2,287**

The estimation of the value of the plot of land is lower than the book value and burdens the results of the fiscal year, while the building goodwill, in accordance with IFRS 40, neither affects the result nor increases the value of the asset.

The book value of the real estate investments approaches their fair value.

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5.31. Investments in subsidiaries and other long term claims

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Participation in ANNA	1	1	1	1
Participation in subsidiaries	0	0	57,880	57,880
Participation in an affiliate (1)	1,050	0	1,050	0
Management committee reserve	11	11	0	0
Valuation from subsidiaries due to stock options	0	0	227	227
Rent guarantees	56	56	10	10
Total	**1,118**	**68**	**59,168**	**58,118**

1. The Company on 27.06.2018 paid up its participation which amounted to €1,550,000 for the founding of the Hellenic Energy Exchange, obtaining 31% of the share capital which is €5,000,000. On 18.12.2018 10% of the above mentioned participation was transferred to the Cyprus Stock Exchange (note 5.45).

   The participation of the Group in HenEx was 21% on 31.12.2018, i.e. €1,050,000. This participation is accounted using the equity method (Note 5.3.1).

The breakdown of the participations of the parent Company in the subsidiaries of the Group on 31.12.2018 is shown below:

	% of direct participation	Number of shares / total number of shares	Cost 31.12.2018	Cost 31.12.2017
ATHEXCSD (former TSEC)	100	802,600 / 802,600	32,380	32,380
ATHEXClear	100	8,500,000 / 8,500,000	25,500	25,500
		Total	**57,880**	**57,880**

In 2018, the Company received dividend of €1 per share from its subsidiary ATHEXCSD for fiscal year 2017. Total dividend received was €802,600.

5.32. Trade and other receivables

All claims are short term and no discounting is required on the date of the statement of financial position. The breakdown of clients and other receivables is shown in the following table:

(Amounts in thousand euro unless otherwise noted) 128

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Clients	6,767	7,421	3,387	3,917
Clients (intra-Group)	0	0	16	251
Less: provisions for bad debts	(3,649)	(3,571)	(1,585)	(1,894)
Net commercial receivables	**3,118**	**3,850**	**1,818**	**2,274**
Other receivables				
Tax withheld on dividends for offsetting (1)	4,721	4,721	4,421	4,421
Tax (0.20%) (2)	1,910	2,528	0	0
HCMC fee claim	453	453	453	453
Taxes withheld on deposits	136	52	74	26
Accrued revenue - prepaid non-accrued expenses (3)	736	351	622	310
Other withheld taxes	49	30	31	20
Prepayment of tax audit differences (note 5.41) (4)	983	983	983	983
Other debtors (5)	89	113	447	441
Total other receivables	**9,081**	**9,231**	**7,031**	**6,654**
Income tax claim (6)	**537**	**168**	**295**	**464**

(1) Concerns the dividend withholding tax on dividends received by the Company from its former subsidiary Athens Exchange. Tax offsetting ended in 2014.

(2) The sales tax on transactions (0.20%) is turned over by members on T+2, however some members take advantage of their right to turn it over in one tranche to ATHEXCSD on the third working day after the end of the month when the transactions took place.

(3) Concerns interest on cash assets - €49 thousand; a provision for market data services - €472 thousand for the Group and €517 thousand for the Company (the corresponding amounts for 2017: €232 thousand for the Group and €290 thousand for the Company); a provision for revenues from services provided to HenEx - €179 thousand and EnergyClear - €9 thousand (for the company the corresponding amounts were €69 thousand and €3 thousand respectively). There were no corresponding amounts in 2017.

(4) Concerns the remaining balance, after offsetting with taxes payable, from the prepayment of the tax resulting from the ATHEX tax audit for the period 2008-2010 (note 5.41).

(5) Other debtors include, among others: claims on HCGC - €35 thousand, as well as a €49 in claims for the lease on the Mayer building. For the Company, an additional amount of €338 thousand is included that concerns a claim for XNET cash settlement by ATHEXCSD.

(6) On 31.12.2018 the Group has an income tax liability of €537 thousand, while the liability for the Company is €400 thousand. See note 5.41 for more detailed analysis.

The provisions for bad debts are analyzed in the table below:

Provisions for bad debts	Group	Company
Balance on 31.12.2016	**2,971**	**1,694**
Additional provisions in 2017	600	200
Balance on 31.12.2017	**3,571**	**1,894**
Additional provisions in 2018	78	(309)
Balance on 31.12.2018	**3,649**	**1,585**

The book value of clients reflect their fair value.

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The tables below detail all client claims at the Group and Company level:

Group	31.12.2018	31.12.2017
Balance not past due	2,852	1,331
Balance past due	3,915	6,090
Before provisions	**6,767**	**7,422**
Less: value impairment provision	3,649	3,571
After provisions	**3,118**	**3,850**

Company	31.12.2018	31.12.2017
Balance not past due	1,675	993
Balance past due	1,727	3,175
Before provisions	**3,403**	**4,168**
Less: value impairment provision	1,585	1,894
After provisions	**1,818**	**2,274**

The aging analysis of pending commercial receivables that are past due, is as follows:

Group	31.12.2018	31.12.2017
Up to 120 days	218	1.917
121 -240 days	75	167
241 – 360 days	40	112
More than 360 days	3.581	3.894
Before provisions	**3.915**	**6.090**

Company	31.12.2018	31.12.2017
Up to 120 days	97	1.138
121 -240 days	55	133
241 – 360 days	38	77
More than 360 days	1.537	1.826
Before provisions	**1.727**	**3.175**

Starting on 1 January 2018, the Group applies the simplified IFRS 9 approach and calculates the expected credit losses for the whole lifetime of its claims.

On each balance sheet date, the Group performs an impairment check on the claims using a table based on which expected credit losses are calculated. The maximum exposure to credit risk on the balance sheet date is the book value of each receivables category as stated above.

The table below presents information on the exposure of the Group and the Company to credit risk:

Group	Not past due	Up to 120 days	121 – 240 days	241 – 360 days	More than 360 days
Expected loss %	1,09%	1,90%	8,23%	36,98%	100,00%
Total claims	2.862	215	75	40	3.581
Expected loss	32	4	6	15	3.581

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Company	Not past due	Up to 120 days	121 – 240 days	241 – 360 days	More than 360 days
Expected loss %	1,70%	3,05%	8,47%	39%	100%
Total claims	1.675	97	55	38	1.537
Expected loss	28	2	4	14	1.537

The abovementioned claims of €6.8m on 31.12.2018 include a claim on the Greek State in the amount of €1,961,760 on which an equal impairment provision has been made.

The book value of the claims above reflects their fair value.

The new IFRS 9 which concerns the classification and measurement of financial assets urges the use of an expected credit losses model replacing the old model of realized accounting losses that was previously applied. According to this model, and in order to estimate the expected credit loss in commercial claims, on 31.12.2018 the Group distributed client claims to time scales and applied loss rates based on past experience at each time scale. This work showed that there was a need to take additional provisions against bad debts of €78 thousand at the Group level (ATHEXCSD - €21 thousand; ATHEX - €57 thousand).

5.33. Financial assets at fair value through other income

The category financial assets at fair value through other comprehensive income include the Bank of Piraeus shares that were obtained in exchange for the bond issued by the same bank that the Group possessed. In particular, 13,365,316 shares of Piraeus Bank were acquired at a par value of €0.30 per share and total value of €4,009,594.80.

On 31.07.2017 the Bank of Piraeus did a reverse split of its stock, correspondingly increasing its par value together with a reduction in the number of shares outstanding. Thus on 3.8.2017 the company possessed 668.265 shares with a new acquisition cost of €6.00 per share.

On 31.12.2017 the share price closed at €3.07 and as a result the valuation of the Bank of Piraeus shares was €2,051,573.55.

On 31.12.2018 the share price closed at €0.84 and as a result the valuation of the Bank of Piraeus shares was €561,343.60, a loss of €1,490,231.95 compared to the valuation on 31.12.2017 which, in accordance with IFRS 39, is reported in Other Comprehensive Income (OCI), thus increasing the relevant reserve that had been formed (see note 5.37).

The change in the value of the Bank of Piraeus shares is analyzed below:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Balance - start of the fiscal year	2,052	2,793	2,052	2,793
Profit / (Loss) from the valuation of the participation recognized in the Statement of Comprehensive Income	(1,490)	(742)	(1,490)	(742)
Balance - end of the fiscal year	**562**	**2,052**	**562**	**2,052**

5.34. Cash and cash equivalents

The cash at hand and at bank of the Group are invested in short term interest bearing instruments in order to maximize the benefits for the companies of the Group, in accordance with the policy set by the Strategic Investments Committee of the Company. By placing its cash in short term interest bearing investments, the

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Group had income of €565 thousand in 2018 (2017: €321 thousand); for the Company, the corresponding income was €321 thousand (2017: €180 thousand).

On 31.12.2018, a significant portion (39.7%) of the cash of the Group is, due to compliance of ATHEXClear with the EMIR Regulation, kept at the Bank of Greece (BoG).

Deposits of the Group at the BoG carry a negative interest rate of 0.4% from 16.3.2016 onwards.

Expenses and bank commissions over the same period amounted to €135 thousand (2017: €166 thousand) for the Group and €10 thousand for the Company (2017: €49 thousand). The breakdown of the cash at hand and at bank of the Group is as follows:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Deposits at the Bank of Greece	29,605	30,685	0	0
Sight deposits in commercial banks	1,942	2,036	1,039	1,246
Time deposits < 3 months	43,052	53,119	21,704	32,722
Cash at hand	9	11	3	2
Total	**74,608**	**85,851**	**22,746**	**33,970**

5.35. Third party balances in bank accounts of the Group

This essentially is a memo account for the margins that ATHEXClear receives from its Members for the derivatives market and, starting on 16.02.2015, for the cash market. ATHEXClear manages Member margins, which in accordance with the investment policy for deposits, are placed with the BoG.

Implementation of the ATHEXClear investment policy begun together with the application of the new clearing model and risk management in the derivatives market on 1.12.2014. The amounts of €153,358 thousand on 31.12.2018 and €157,598 thousand on 31.12.2017 respectively shown below and in the Statement of Financial Position on 31.12.2018 and 31.12.2017 respectively, concern exclusively Member collaterals in the cash and derivatives markets as well as XNET respectively.

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Clearing Fund collaterals – Cash Market	12,151	10,475	0	0
Additional Clearing Fund collaterals – Cash Market	99,838	99,325	0	0
Clearing Fund collaterals – Derivatives Market	6,488	8,685	0	0
Additional Clearing Fund collaterals – Derivatives Market	33,307	37,548	0	0
Members Guarantees in cash for X-NET (1)	1,574	1,565	1,398	1,565
Third party balances	**153,358**	**157,598**	**1,398**	**1,565**

(1) Margins received by the Company for the XNET market on 31.12.2018 were kept in commercial bank accounts, as are dormant client balances of the Clearing Fund amounting to €35 thousand. In addition, the amount of €140 thousand concerning returns from interest payments to clients exempted or in the special account is also kept in commercial banks.

5.36. Deferred Tax

The deferred taxes accounts are analyzed as follows:

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Deferred taxes	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Deferred tax claims	1,467	1,241	1,419	1,173
Deferred tax liabilities	(1,483)	(1,568)	0	0
Total	**(16)**	**(327)**	**1,419**	**1,173**

The analysis of deferred tax claims and liabilities for the Group is as follows:

Deferred tax claims	Intangible assets	Property plant & equipment	Provisions - Actuarial study & staff retirement obligations	Other provisions	Loss from the sale of securities in previous FY	Total
Balance 1.1.2017	**60**	**97**	**537**	**829**	**136**	**1,659**
(Debit) / credit to the results	(9)	(31)	(6)	58	0	12
(Debit) / credit to other comprehensive income	0	0	9	0	0	9
Balance 31.12.2017	**51**	**66**	**540**	**887**	**136**	**1,680**
(Debit) / credit to the results	(6)	41	(92)	364	(136)	171
(Debit) / credit to other comprehensive income	0	0	0		0	0
Balance 31.12.2018	**45**	**107**	**448**	**1,251**	**0**	**1,851**

Deferred tax liabilities	Property plant & equipment	Share valuation provision	Total
Balance 1.1.2017	**(2,096)**	**(291)**	**(2,387)**
Debit / (credit) to the results	165	0	165
Debit / (credit) to other comprehensive income	0	215	215
Balance 31.12.2017	**(1,931)**	**(76)**	**(2,007)**
Debit / (credit) to the results	416	0	416
Debit / (credit) to other comprehensive income	(650)	373	(277)
Balance 31.12.2018	**(2,165)**	**297**	**(1,868)**

The analysis of deferred tax claims and liabilities for the Company is as follows:

Deferred tax claims	Intangible assets	Property plant & equipment	Provisions - Actuarial study & staff retirement obligations	Other provisions	Loss from the sale of securities in previous FY	Total
Balance 1.1.2017	**9**	**97**	**284**	**680**	**136**	**1,206**
(Debit) / credit to the results	3	(31)	41	24	0	37
(Debit) / credit to other comprehensive income	0	0	6	0	0	6
Balance 31.12.2017	**12**	**66**	**330**	**704**	**136**	**1,248**
(Debit) / credit to the results	2	41	(51)	17	(136)	(127)
(Debit) / credit to other comprehensive income	0	0		0	0	0
Balance 31.12.2018	**14**	**107**	**279**	**721**	**0**	**1,121**

Deferred tax liabilities	Share valuation loss provision	Total
Balance 1.1.2017	**(291)**	**(291)**
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	215	215
Balance 31.12.2017	**(76)**	**(76)**
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	373	373
Balance 31.12.2018	**297**	**297**

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Other data concerns the tax corresponding to the valuation and sale of participations and securities.

5.37. Equity and reserves

a) Share Capital

The 1st Repetitive General Meeting of shareholders of 13.06.2018 approved a share capital return of €0.15 to shareholders, with a corresponding reduction in the share par value, as well as the cancellation of 251,000 shares in treasury stock. Thus, the share capital of the Company amounts to €41,640,120.00, divided into 60,348,000 shares with a par value of €0.69 per share.

	Number of shares	Par value (€)	Share Capital (€)	Share Premium (€)
Total 31.12.2016	**65,368,563**	**1.08**	**70,598,048.04**	**157,084.15**
Share capital reduction (May 2017)		(0.24)	(15,688,455.12)	0
Total	**65,368,563**	**0.84**	**54,909,52.92**	**0**
Reduction of Share Capital through cancellation of Own Shares	(4,769,563)	0.84	(4,006,432.92)	0
Total 31.12.2017	**60,599,000**	**0.84**	**50,903,160.00**	**157,084.15**
Share capital reduction		(0.15)	(9,089,850.00)	0
Total	**60,599,000**	**0.69**	**41,813,310.00**	**0**
Reduction of Share Capital through cancellation of Own Shares	(251,000)	0.69	(173,190.00)	0
Total 31.12.2018	**60,348,000**	**0.69**	**41,640,120.00**	**157,084.15**

Following the decision of the General Meeting of shareholders of the Company on 20.5.2015 a share buyback program was implemented (see below note c).

b) Reserves

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Regular Reserve (1)	29,506	29,392	28,116	28,116
Tax free and specially taxed reserves (2)	10,736	10,736	10,281	10,281
Treasury stock reserve (3)	(12,669)	(11,681)	(12,669)	(11,681)
Real estate revaluation reserve	15,819	15,819	14,383	14,383
Real estate revaluation reserve (Law 2065/1992)	1,949	0	0	0
Other (4)	5,983	5,983	5,983	5,983
Special securities valuation reserve (5)	(2,508)	185	(2,508)	185
Reserve from stock option plan to employees	1,385	1,385	1,336	1,336
Total	**50,201**	**51,819**	**44,922**	**48,603**

(1) ATHEXClear regular reserve: €239 thousand; ATHEXCSD regular reserve: €1,151 thousand.

(2) Reserves in this category include taxed reserves - €595 thousand (ATHEX - €141 thousand; ATHEXCSD - €454 thousand).

(3) Reflects the value of the treasury stock purchased minus the treasury stock that was cancelled.

(4) Concerns a special dividend reserve for 2015 - €5,696 thousand; dividend reserve for 2017 - €247 thousand; and specially taxed reserves - €40 thousand.

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(5) The Group has invested part of its cash assets in shares of an ATHEX listed company which it has classified as financial assets at fair value through other income in accordance with IFRS 9 (note 5.33). On 31.12.2018 the shares posted a valuation loss of €1,490,230.95 which was charged to the special securities valuation reserve from which the amount of €372,557.74 (29% x €1,490,230.95) was subtracted and transferred to deferred tax. In addition, the relevant valuation loss which had been recognized in fiscal year 2016 and amounted to €1,575,236.15 was transferred on 1.1.2018 from retained earnings to the special securities valuation reserve. Thus the end balance of the special reserve on 31.12.2018 was €2,507,868.

c) Share Buyback program

The company completed a share buyback program on 20.4.2017. The program was approved by the 14th Annual General Meeting of shareholders on 20.5.2015 with the following terms:

- Buy back up to 10% of the share capital
- Buyback price per share: from €1.50 to €7.00
- Duration of the program: 2 years (until end of May 2017)
- Purpose of the program: at least 95% of the shares that will be bought back will be cancelled - the remaining 5% of the shares may be distributed to the personnel of the Group.

The share buyback program begun on 9.2.2016, and up until 20.4.2017, 5,020,563 own shares were purchased (7.68% of the number of shares outstanding of the company) at an average price of €4.63 per share and a total cost of €23,244,794.

Out of the abovementioned treasury stock, 95% (4,769,563 shares) were cancelled by the 1st Repetitive General Meeting on 9.6.2017. Following the cancellation of the abovementioned number of shares and the €4,006,432.92 reduction in share capital, 251,000 shares in treasury stock, valued at €1,161,717.49 remain in the possession of the Company. Lastly, the Repetitive General Meeting on 13.06.2018 decided to cancel the remaining 251,000 shares in treasury stock with a value of €173,190 and as a result the share capital became €41,640,120.00 and the number of shares outstanding 60,348,000.

d) Retained Earnings

The retained earnings of €18,852 thousand on 31.12.2017 increased by the net after tax earnings for 2018 (€3,027 thousand) and by the actuarial earnings (€4 thousand), and reduced by earnings distribution to reserves (€114 thousand) and the distribution of dividend (€3,029 thousand) and amounted to €18,740 at the end of fiscal year 2018 (see 4.3.1).

e) Capital Requirements

According to the EMIR Regulation (article 45 of the EU 20. 648/2012) a clearing house must keep lines of defense in case of member's default (default water fall).

In accordance with article 35 of the technical standards, for clearinghouses the amount of the own assets of central counterparties that are used as line of defense in case of default is calculated, and in particular:

- The central counterparty maintains and reports separately on its balance sheet the amount of special own assets earmarked for the purposes mentioned in article 45 paragraph 4 of Regulation (EU) 648/2012.
- The central counterparty calculates the minimum amount specified in paragraph 1 by multiplying the minimum capital requirement by 25%, including undistributed profits and reserves for the purposes mentioned in article 16 of Regulation (EU) 648/2012 and by authorization Regulation (EU) 152/2013 of the Commission (1).

The Central Counterparty reviews the minimum amount in question on an annual basis.

Based on the above, as a recognized clearing house, ATHEXClear drafted a report “Methodology for calculating capital requirements”, in cooperation with consultants, in which the methodology applied was described in order to estimate the capital requirements for credit risk, counterparty risk, market risk, termination risk, operating risk and business risk. The methodology applied was based on the following:

- Regulations (EU) 648/2012, (EU) 152/2013 and (EU) 153/2013
- Regulation (EU) 575/2013
- FSA: Prudential sourcebook for Banks, Building Societies and Investment Firms
    - BIRBU 13,4 CCR mark to market method
    - BIRBU 5,4 Financial collateral
    - BIRBU 3 Standardized credit risk

Based on the above, ATHEXClear regularly calculates its capital requirements which are required in order to fulfill its regulatory obligations on a quarterly basis, and reports it in its financial statements.

If ATHEXClear equity, as calculated above, is less than 110% of the capital requirements, or less than 110% of the €7.5m threshold notification, ATHEXClear will immediately notify the relevant authority (Hellenic Capital Market Commission), and will continue to keep it informed on a weekly basis, until the amount of capital it possesses exceeds the notification threshold.

ATHEXClear’s capital requirements on 31.12.2018 are broken down in the table below:

Capital requirements **Risk type**	**Capital requirements 31.12.2018**
Credit risk (total)	131
Derivatives market	0
Cash market	0
Investment of own assets	131
Market risk	0
Exchange rate risk	0
Operating risk	115
Winding down risk	3,177
Business risk	1,588
Total Capital requirements	**5,011**
Notification Threshold (110% of capital requirements)	**5,512**
Additional special resources (25% of capital requirements of 31.12.2018)	**1,253**

ATHEXClear equity amounting to €30.4m, as reported in the statement of financial position of ATHEXClear on 31.12.2018, exceeds its capital requirements, as calculated above.

The additional special resources of €1,253 thousand that correspond to 25% of the capital requirements on 31.12.2018 are distributed as follows: €817 thousand to the cash market and €435 thousand to the derivatives market on 31.12.2018.

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5.38. Provisions

		Group		Company	
		31.12.2018	31.12.2017	31.12.2018	31.12.2017
Staff retirement obligation (note 5.20)		1,794	1,840	1,118	1,143
Termination provisions		0	350	0	232
Total		**1,794**	**2,190**	**1,118**	**1,375**
Other provisions		1,360	1,360	1,300	1,300
Total		**1,360**	**1,360**	**1,300**	**1,300**

For the change in staff retirement obligations in fiscal years 2018 and 2017, please refer to note 5.20.

The change in provisions on 31.12.2018 and 31.12.2017 for the Group and Company is shown below:

Group	Termination provision	Provisions for other risk
Balance on 31.12.2016	**150**	**1,360**
Additional provision in the period	200	0
Balance on 31.12.2017	**350**	**1,360**
Additional provision in the period	0	0
Provision used	(350)	0
Balance on 31.12.2018	**0**	**1,360**

Company	Termination provision	Provisions for other risk
Balance on 31.12.2016	**150**	**1,300**
Additional provision in the period	82	0
Balance on 31.12.2017	**232**	**1,300**
Additional provision in the period	0	0
Provision used	(232)	0
Balance on 31.12.2018	**0**	**1,300**

By taking provisions, the Group and the Company are trying to protect themselves against potential future risks.

5.39. Trade and other payables

All liabilities are short term and, therefore, no discounting on the date of the financial statements is required. The breakdown of suppliers and other liabilities are shown in the following table:

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	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Suppliers	2,425	2,017	1,503	1,502
Suppliers (intra-Group)	0	0	3	0
Checks payable	77	0	5	0
Hellenic Capital Market Commission Fee (1)	425	553	153	202
Tax on stock sales 0.20% (2)	2,124	3,535	0	0
Dividends payable	30	28	30	28
Accrued third party services (3)	507	490	260	295
Contributions payable	41	367	22	206
Share capital return to shareholders (4)	101	88	101	88
Tax on salaried services	262	238	146	143
Tax on external associates	1	1	0	0
VAT-Other taxes	273	295	185	183
Various creditors	39	85	0	0
Total	**6,305**	**7,697**	**2,409**	**2,647**

(1) The Hellenic Capital Market Commission fee of €425 thousand (compared to €553 thousand in 2017) is calculated based on the value of the trades in the cash and derivatives market and is turned over to the Hellenic Capital Market Commission within two months following the end of each 6-month period. The amount concerns the second half of 2018.

(2) ATHEXCSD, as successor to the Central Securities Depository, based on article 9 §2 of Law 2579/88 as amended by Law 2742/99, acts as an intermediary and collects from ATHEX members the tax (0.20%) on stock sales that take place on ATHEX which it turns over to the Greek State. The amount of €2.1m corresponds to the tax (0.20%) on stock sales that has been collected for December 2018 and was turned over to the Greek State in January 2019.

(3) Accrued third party services include a provision of €284 thousand for building and equipment maintenance; €40 thousand for ATHEXClear systems audit; €43 thousand for UNAVISTA LEI service provision, and the balance other expense provisions (FTSE, data vendors, vodafone etc).

(4) Includes the obligation to pay share capital returns to shareholders.

5.40. Social security organizations

The obligations to social security organizations for the Group include contributions to [social security organizations] IKA, TSMEDE (now EFKA), as well as a provision for the Occupational Insurance Fund that is being set up. In 2018 the amount was €984 thousand compared to €942 thousand on 31.12.2017. For the Company, the corresponding amounts were €780 thousand in 2018 compared to €746 thousand on 31.12.2017.

5.41. Current income tax and income taxes payable

Nondeductible expenses mainly include provisions, various expenses as well as amounts which the Company considers as not justifiable production expenses in a potential tax audit and which are adjusted by management when the income tax is calculated.

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Tax liabilities	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Liabilities 31.12	(168)	(3,312)	(464)	(1,052)
Income tax expense	1,572	2,177	543	851
Taxes paid	(1,778)	967	(374)	(263)
Liabilities / (claims) (note 5.32)	**(374)**	**(168)**	**(295)**	**(464)**

The amount of €374 thousand shown as Group income tax claim on 31.12.2018 breaks down as follows: ATHEXClear - €87 thousand; ATHEX (parent company) - €295 thousand; and a €8 thousand liability by ATHEXCSD.

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Income Tax	1,572	2,177	543	851
Deferred Tax (note 5.36)	(591)	(175)	125	(36)
Income tax expense	**981**	**2,002**	**669**	**814**

Reconciliation of the income tax with profits/losses before tax on the basis of the applicable ratios and the tax expense is as follows:

	Group		Company	
Income tax	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Profits before taxes	4,008	5,078	2,438	2,400
Income tax rate	29%	29%	29%	29%
Expected income tax expense	1,162	1,473	707	696
Tax effect of non-taxable income	(181)	0	(38)	0
Tax effect of non-deductible expenses	0	529	0	118
Income tax expense	**981**	**2,002**	**669**	**814**

Non-taxable income refers mainly to dividend income from subsidiaries, which is eliminated on a consolidated basis. Thus the tax rate calculated on the accounting profits increases, since the corresponding taxable profits are larger. Furthermore, the resulting effective tax rate on the consolidated profits is larger than the nominal tax rate in effect because – during the current fiscal year- there are intra-Group transactions.

The losses from the bank bonds have a different accounting treatment in IFRS compared to tax accounting, and are the main reason for the creation of deferred tax.

Tax Compliance Report

For fiscal years 2011 to 2015, the Greek Sociétés Anonymes and Limited Liability Companies whose annual financial statements must be audited were required to obtain an “Annual Certificate”, as provided for in §5 article 82 of Law 2238/1994 and article 65A Law 4174/2013, which is issued after a tax audit carried out by the same statutory auditor or audit firm that audits the annual financial statements. After completion of the tax audit, the statutory auditor or the audit firm issues to the company a “Tax Compliance Report” which is then submitted electronically to the Ministry of Finance.

Starting with fiscal year 2016, the issuance of an “Annual Certificate” is optional. The tax authorities reserve the right to carry out a tax audit within the established framework as defined in article 36 of Law 4174/2013.

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Unaudited fiscal years

The status of the tax audits for the companies of the Group, by fiscal year, is as follows:

	2008	2009	2010	2011	2012	2013	2014				
ATHEX to 30.06.2014	x	x	x	x	x	x	x	2015	2016	2017	2018
ATHENS EXCHANGE (ATHEX)		appeal		x	x	x	x	x	x	x	+
ATHEXCSD (former TSEC)	x	x	x	x	x	x	x	x	x	x	+
ATHEXClear	x	x	x	x	x	x	x	x	x	x	+

(x) Tax audit completed
(+) Tax audit in progress

ATHEX: (see below concerning the tax audit for fiscal years 2008-2010).

For fiscal year 2011 the companies of the Group have been audited by PricewaterhouseCoopers S.A., and for fiscal years 2012-2016 they have been audited by Ernst and Young S.A. and have received clean “Tax Compliance Reports” in accordance with the regulations in effect (article 82, §5 of Law 2238/1994 for fiscal years 2011-2013 and article 65A of Law 4174/2013 for fiscal years 2014-2015).

For fiscal year 2017 the tax audit was carried out by PricewaterhouseCoopers S.A. in accordance with article 65A of Law 4174/2013, and the relevant tax certificate was issued in October 2018. For fiscal year 2018 the tax audit is in progress and the tax certificate is expected to be granted after the submission of the tax declaration for 2018.

Tax audit of the Company for fiscal years 2008, 2009 and 2010

On 30.9.2016, within the time limits of the law, the Company filed an administrative appeal in accordance with article 63 of Law 4174/2013 at the Dispute Settlement Directorate (DED) of the General Secretariat of Public Revenue (GGDE), against the findings of the tax audit, and at the same time paid 100% of the amount due i.e. €1,562 thousand, in order to avoid the accumulation, calculation and assessment of interest for the duration of the suspension of the sum due (article 53 §1 of law 4174/2013).

The DED finding, which was received on 15.2.2017, reduces the total amount by €579 thousand, to €983 thousand. This difference has already been offset with an equal amount of Company tax obligations by the appropriate tax office. The Company has further appealed (16.03.2017) to the Administrative Courts in order to reduce the tax and penalties assessed by the tax audit. The Company received a summons from the Administrative Court of Appeals and was presence for the adjudication of the case on 6.3.2018. Decision 3901/2018 of the Administrative Court of Appeals of Athens refers the case to the Three member Administrative Court of First Instance of Athens. The court date has been set on 24.9.2019.

5.42. Related party disclosures

The value of transactions and the balances of the Group with related parties are analyzed in the following table:

	Group		Company	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Remuneration of executives and members of the BoD	1,490	1,412	1,015	1,025

The intra-Group balances on 31.12.2018 and 31.12.2017, as well as the intra-Group transactions of the companies of the Group on 31.12.2018 and 31.12.2017 are shown below:

(Amounts in thousand euro unless otherwise noted) 140

INTRA-GROUP BALANCES (in €) 31-12-2018				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	404,920	0
	Liabilities	0	3,069	0
ATHEXCSD	Claims	3,069	0	20,047
	Liabilities	404,920	0	1,611
ATHEXCLEAR	Claims	0	1,611	0
	Liabilities	0	20,047	0

INTRA-GROUP BALANCES (in €) 31-12-2017				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	569,926	68,090
	Liabilities	0	0	0
ATHEXCSD	Claims	(0)	0	1,261,736
	Liabilities	569,926	0	6,637
ATHEXCLEAR	Claims	0	6,637	0
	Liabilities	68,090	1,261,736	0

INTRA-GROUP REVENUES-EXPENSES (in €) 31-12-2018				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	402,376	109,822
	Expenses	0	308,833	0
	Dividend Income	0	802,600	0
ATHEXCSD	Revenue	308,833	0	5,085,351
	Expenses	402,376	0	16,258
ATHEXCLEAR	Revenue	0	16,258	0
	Expenses	109,822	5,085,351	0

INTRA-GROUP REVENUES-EXPENSES (in €) 31-12-2017				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	431,605	105,115
	Expenses	0	306,567	0
	Dividend Income	0	802,600	0
ATHEXCSD	Revenue	306,567	0	5,258,875
	Expenses	431,605	0	14,893
ATHEXCLEAR	Revenue	0	14,893	0
	Expenses	105,115	5,258,875	0

Intra-Group transactions concern: the annual fee for trade settlement (art. 1 decision 1 on fees), settlement instructions (art. 1 decision 1 on fees), support services (accounting, security, administrative services etc.), IT services, as well as PC support services, which are invoiced at prices comparative to those between third parties.

(Amounts in thousand euro unless otherwise noted) 141

For the affiliated company Hellenic Energy Exchange, the table of claims and revenue for 2018 follows below; there were no corresponding amounts for 2017.

Claims (in €)	**2018**
ATHEX	112,223
ATHEXCSD	263,725

Revenue (in €)	**2018**
ATHEX	69.441
ATHEXCSD	110.142

5.43. Hellenic Corporate Governance Council (HCGC)

The Hellenic Corporate Governance Council (HCGC) operates as a Non-Profit Organization, is an entity specializing in the spread of corporate governance principles and strives to develop a culture of good governance in the Greek economy and society. The overall action plan includes: the formation of positions on the regulatory framework, the submission of proposals, participation in consultations and working groups, the organization of educational and information activities, the monitoring and evaluation of corporate governance practices and implementation of corporate governance codes, the provision of assistance tools and the scoring of the performance of Greek enterprises.

Having completed its first cycle of operation, HCGC in 2018 has entered into a phase of participatory and administrative expansion, further increasing its work and strengthening its role. Within this context, besides the founding members (ATHEX and SEV – Hellenic Federation of Enterprises), the Hellenic Bank Association (HBA) has joined as a regular member. In the same context, a new Management Board has been elected, the other bodies of HCGC have been renewed, and a Working Committee has been formed, with the responsibility to implement the HCGC action plan, organize individual actions (conferences, events, promotional activities), find donors and other sources of financing, as well as fulfill and implement HCGC's specific objectives.

The activities of HCGC for 2018 include the continuation of the provision of consulting services to the Hellenic Corporation of Assets and Participations (HCAP) in matters of Corporate Governance. In particular, HCGC the dividend policy for HCAP, a project that was assigned by "Expertise France" (a French state international technical assistance organization) as part of the technical assistance being provided to the Greek government. In addition, HCGC participates in the Perakis Commission to reform corporate law 2190/1920 (law 4548/2018) and in the work group of the Hellenic Capital Market Commission to amend law 3016/2002 on corporate governance.

5.44. Earnings per share and dividends payable

The BoD of the Athens Exchange proposed the distribution of €0.05 per share, i.e. a payout of €3,029,950, as dividend from the profits of fiscal year 2017, as well as the return of capital to shareholders of €0.15 per share, i.e. a payout of €9,089,850. The actual amounts per share were adjusted to €0.050208 and €0.1506239 respectively, due to the existence of treasury stock (which is not entitled to receive cash distributions). The proposals of the BoD for the distribution of dividend and the return of capital were approved by shareholders at the 17th Annual General meeting on 30.5.2018 and the 1st Repetitive GM on 13.06.2018 respectively.

The net after tax earnings of the Group for 2018 were €3.0m or €0.05 per share, while after including other comprehensive income, earnings were €3.9m thousand or €0.06 per share. Following the share capital reduction of the Company due to the cancellation of treasury stock (note 5.37), the number of shares outstanding of the Company is 60,348,000.

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5.45. Hellenic Energy Exchange (HEnEx)

The “Hellenic Energy Exchange” (HenEx) has began operating. It is one of the core pillars of the target-model of the European Union, with the aim of creating a single European energy market.

As mentioned in the information note of the Ministry of the Environment, the Energy Exchange is a prerequisite to the restructuring of the wholesale electricity market, to the benefit of market participants and end-consumers, as it aims to:

- Couple the Greek market to other European markets.
- Increase competition and transparency, which will have a direct effect in reducing energy costs and providing better prices to households and businesses.
- Ensure the safety of energy supply, diversification of energy sources in the energy mix, as well as further increase the participation of renewable energy sources (RES). Law 4512/2018 amends law 4425/2016 on the restructuring of the Greek electricity market, implementing European Regulations and Directives in order to complete the single European energy market, the so-called Target Model.

In 2019 the Energy Exchange will begin operating with the start of the four new energy markets which will replace the mandatory pool model that is in effect today. This is foreseen by the “road map” for implementing the Target Model that has been set up by the responsible bodies, which received the “green light” by the representatives of the Institutions at the recent negotiations.

On 18.06.2018 decision 9828/18-18.06.2018 by the Deputy Chief of the Athens Central Region (ΑΔΑ 62Α27Λ7-ΤΣΒ) was registered at the General Electronic Commercial Registry (GEMI) (registration number 1405724), which:

- Provides a license to establish the Societe Anonyme with the name “Hellenic Energy Exchange” (“HenEx”), to which the spun-off sector by “Operator of Electricity Market” (“LAGIE”), GEMI Registration number 44658007000 was contributed, in accordance with the provisions of codified law 2190/1920, law 2166/93 (in deviation of case e’ of par. 1 of article 1), article 117B of law 4001/2011 as added by article 96 of law 4512/2018 and the Report Ascertaining the Book Value of the assets of the sector being spun-off, drafted by the Certified Auditor-Accountant NIKOLAOS TSARDOULIAS.
- Approves the Articles of Association of the company, as drafted by notary act number 4874/15.06.2018 by the notary of Athens Eleni Aristeidis Dragiou.

The Tax Registration Number of the Hellenic Energy Exchange is 801001623 and its offices are on 110 Athinon Ave, 10442 Athens, and are leased from ATHEXCSD.

The share capital of HenEx, in the amount of €5,000,000 divided into 50,000 shares of €100 each was paid in full by 9.7.2018.

The Company (Athens Exchange – ATHEX) paid up its participation in the amount of €1,550,000 on 27.6.2018, thus obtaining 31% of the share capital. On 18.12.2018 it transferred 10% of the share capital (5,000 shares) to the Cyprus Stock Exchange (CSE) for €500,000.

The shareholders with their stakes in the share capital of HenEx in accordance with the Articles of Association are shown below:

	Value (€)	Shares	Stake
LAGIE [Operator of Electricity Market]	1,100,000	11,000	22%
ADMIE [Independent Power Transmission Operator – IPTO]	1,000,000	10,000	20%
DESFA [Hellenic Gas Transmission System Operator]	350,000	3,500	7%
Athens Exchange	1,050,000	10,500	21%
European Bank for Reconstruction and Development (EBRD)	1,000,000	10,000	20%
Cyprus Stock Exchange *	500,000	5,000	10%
Total	**5,000,000**	**50,000**	**100%**

* On 18.12.2018, ATHEX transferred 10% of the share capital (out of the 31% it held when the Company was founded), i.e. 5,000 shares with a par value of €500,000, to the Cyprus Stock Exchange.

5.46. Composition of the BoDs of the companies of the Group

The current members of the Boards of Directors of the companies of the ATHEX Group are listed in the following tables:

HELLENIC EXCHANGES - ATHENS STOCK EXHANGE S.A. HOLDING	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Socrates Lazaridis	Vice Chairman & Chief Executive Officer
Alexandros Antonopoulos	Independent non-executive member
Konstantinos Vassiliou	Non-executive member
Ioannis Emiris	Non-executive member
Dimitrios Karaiskakis	Executive member
Sofia Kounenaki – Efraimoglou	Independent non-executive member
Ioannis Kyriakopoulos	Non-executive member
Adamantini Lazari	Independent non-executive member
Nikolaos Milonas	Independent non-executive member
Alexios Pilavios	Non-executive member
Dionysios Christopoulos	Independent non-executive member
Nikolaos Chryssochoidis	Non-executive member

ATHENS EXCHANGE CLEARING HOUSE S.A	
Name	**Position**
Alexios Pilavios	Chairman, non-executive member
Gikas Manalis	Vice Chairman, non-executive member
Socrates Lazaridis	Chief Executive Officer, Executive member
Andreas Mitafidis	Independent non-executive member
Nikolaos Pimplis	Executive member
Charalambos Saxinis	Independent non-executive member
Dionysios Christopoulos	Independent non-executive member

(Amounts in thousand euro unless otherwise noted) 144

HELLENIC CENTRAL SECURITIES DEPOSITORY S.A.	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Socrates Lazaridis	Vice Chairman & Chief Executive Officer
Nikolaos Pimplis	Executive member
Nikolaos Porfyris	Executive member
Dionysios Christopoulos	Non-executive member

5.47. Contingent Liabilities

The Group is involved in legal proceedings with employees, members of the Athens Exchange, listed companies as well as with third parties. The management of the Group and its legal counsel estimate that the outcome of these cases will not have a significant effect on the financial position or the results of the operation of the Group and the Company.

In order to reduce client receivables, the Group takes all legal courses of action provided by the law and the Regulations. In this context, out-of-court complaints and lawsuits have been submitted, which will be judged in court. A significant part of the receivables is estimated to be recoverable by the companies of the Group.

5.48. Alternative Performance Measures (APMs)

The European Securities and Markets Authority (ESMA/2015/1415el) published the final guidelines on the Alternative Performance Measures (APMs) that apply starting on 3 July 2016 to companies with transferable securities traded in organized exchanges. APMs are published by the issuers during the publication of regulated information, and aim to improve transparency and promote usability as well as provide accurate and comprehensive information to investors.

An Alternative Performance Measure (APM) is an adjusted financial measurement of past or future financial performance, financial position or cash flows that is different from the financial measurement defined in the applicable financial reporting framework. In other words an APM on the one hand is not exclusively based on financial statement standards, and on the other it provides material supplementary information, excluding items that may potentially differentiate from the operating results or the cash flows.

Transactions with a non-operational or non-cash valuation that have a significant effect in the Statement of Comprehensive Income are considered items that affect the adjustment of the indices to APMs. These, non-recurring in most cases, items may arise among others from:

- Asset impairments
- Restructuring measures
- Consolidation measures
- Sale or transfer of assets
- Changes in legislation, compensation for damages or legal claims

APMs must always be taken into consideration in conjunction with the financial results that have been drafted based on IFRS, and in no instance should they be considered as replacing them. The Athens Exchange Group used APMs for the first time in fiscal year 2016, in order to better reflect the financial and operational performance related to the activity of the Group as such in the fiscal year in question, as well as the previous comparable period.

The definition, analysis and calculation basis of the APMs used by the Group is presented below.

Items affecting the adjustment

In accordance with the financial statements for fiscal year 2018, the items that affect the adjustment of the indices used by the Group in order to calculate APMs are the valuation of the shares of a listed bank that it possesses, the change in the value of its properties due to an assessment, as well as the provisions for bad debts, as detailed in the table below:

in € thousand	01.01-31.12.2018	01.01-31.12.2017
Statement of Comprehensive Income		
Provisions against bad debts	(78)	(600)
Plot of land assessment loss	(300)	0
Reversal of unused provisions	123	32
Total	**(255)**	**(568)**
Other Comprehensive Income	**0**	**0**
Gain from properties assessment	1,949	0
Share valuation	(1,117)	(527)
Total	**832**	**(527)**
Grand total	577	(1,095)

The indices which are not differentiated due to the lack of adjustment items are:

1. EBITDA = Earnings Before Interest, Taxes, Depreciation & Amortization - items affecting the adjustment

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
EBITDA	**7,382**	**7,983**	**(8)%**
Provisions against bad debts	78	600	(87)%
Reversal of unused provisions	(123)	(32)	284%
Adjusted EBITDA	**7,337**	**8,551**	**(14)%**
Deviation %	**(1)%**	**7%**	

2. EBIT = Earnings Before Interest & Taxes - items affecting the adjustment

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
EBIT	**3,878**	**4,923**	**(21)%**
Provisions against bad debts	78	600	(87)%
Reversal of unused provisions	(123)	(32)	284%
Adjusted EBIT	**3,833**	**5,491**	**(30)%**
Deviation %	**(1)%**	**12%**	

3. EBT = Earnings Before Taxes - items affecting the adjustment

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
EBT	**4,008**	**5,078**	**(21)%**
Provisions against bad debts	78	600	(87)%
Reversal of unused provisions	(123)	(32)	284%
Plot of land assessment loss	300	0	
Adjusted EBT	**4,263**	**5,646**	**(24)%**
Deviation %	**6%**	**11%**	

4. EAT = Earnings After Taxes - items affecting the adjustment

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
EAT	**3,027**	**3,076**	**(2)%**
Provisions against bad debts	78	600	(87)%
Reversal of unused provisions	(123)	(32)	284%
Plot of land assessment loss	300	0	
Adjusted EAT	**3,282**	**3,644**	**(10)%**
Deviation %	**8%**	**18%**	

5. Cash flows after investments

(cash flows before financial activities in the Statement of Cash Flows) = Net cash flows from operating activities - Net cash flows from investment activities - items affecting the adjustment

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
Net cash flows from operating activities	4,614	11,990	(62)%
Net cash flows from investment activities	(3,738)	(1,934)	93%
Cash flows after investment activities	**876**	**10,056**	**(91)%**
Items affecting the adjustment	255	568	(55)%
Adjusted cash flows from investment activities	**1,131**	**10,624**	**(89)%**
Deviation	**29%**	**6%**	

6. Return on Investment (ROI) % = $\frac{\text{Profits Before Taxes + Interest \& related expenses – items affecting the adjustment}}{\text{Total liabilities (reduced by third party cash \& cash equivalents) + average interest bearing liabilities during the year}}$ x 100

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
Return on Investment (ROI)	**35%**	**38%**	**(8)%**
Earnings After Tax	**4,008**	**5,078**	**(21)%**
Interest & related expenses	135	166	(19)%
Items affecting the adjustment	255	568	(55)%
Total (a)	**4,398**	**5,812**	**(24)%**
Total liabilities – Third party cash & cash equivalents (b)	**11,976**	**13,807**	**(13)%**
Adjusted Return on Investment (ROI) (a)/(b)	**37%**	**42%**	**(13)%**
Deviation %	**5%**	**11%**	

7. Adjusted Return on Equity (ROE), % = $\frac{\text{Profits After Taxes – items affecting the adjustment}}{\text{Total Equity (average)}}$ x 100

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
Return on Equity	**2.70%**	**2%**	**8%**
Net earnings for the period	3,027	3,076	(2)%
Items affecting the adjustment	255	568	(55)%
Total	**3,282**	**3,644**	**(10)%**
Average total Equity	**112,209**	**123,053**	**(9)%**
Adjusted Return on Equity	**2.92%**	**2.96%**	**(1)%**
Deviation %	**8%**	**18%**	

8. Degree of Financial Self-Sufficiency $= \dfrac{\text{Total Equity – items affecting the adjustment}}{\text{Total Balance sheet – third party cash assets}} \times 100$

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
Degree of Financial Self-Sufficiency	**90%**	**90%**	**0%**
Total Equity	108,604	118,994	(9)%
Items affecting the adjustment	255	568	(55)%
Share valuation	(832)	527	(258)%
Total (a)	**108,027**	**120,089**	**(10)%**
Total Balance Sheet - Third party cash & cash equivalents (b)	**122,714**	**132,801**	**(8)%**
Adjusted Degree of Financial Self-Sufficiency (a/b)	**88%**	**90%**	**(2)%**
Deviation %	**(2)%**	**0%**	

9. Adjusted EPS $= \dfrac{\text{Net Profit attributable to the owners of the parent Company – items affecting the adjustment}}{\text{Average number of shares during the period}} \times 100$

€ thousand	01.01-31.12.2018	01.01-31.12.2017	Deviation %
EPS	**0.064**	**0.042**	**52%**
Other comprehensive income	3,865	2,522	53%
Adjustment items	(577)	1,095	(153)%
Net adjusted other comprehensive income	**3,288**	**3,617**	**(9)%**
Average number of shares during the period	**60,348,000**	**60,348,000**	**0%**
Adjusted EPS	**0.054**	**0.060**	**(10)%**
Deviation %	**(16)%**	**43%**	

5.49. Events after the date of the financial statements

Participation in Boursa Kuwait

The Athens Stock Exchange decided to participate as a technical, operational and business services provider for Boursa Kuwait by forming a consortium with the largest possible participation from the qualified Local Companies to proceed to the final bidding process, organized by the Capital Markets Authority (CMA) of Kuwait, with regard to the privatization process of Boursa Kuwait.

On February 14th 2019, the Consortium comprising of Athens Stock Exchange (ATHEX), as the qualified international operator and a wide group of leading listed, financial groups in Kuwait, namely Arzan Financial Group (ARZAN), First Investment Company (FIC) and National Investments Company (NIC), were awarded the bid, by way of a closed bidding process organized by the **CMA**, for a 44% equity stake in Boursa Kuwait, the only market operator and one of the leading stock exchanges in the Gulf area.

The Consortium offered 0.237 Kuwaiti dinar (€0.69) per share for the stake purchase. A 6% stake is owned by the Public Institution For Social Security (PIFSS), while the remaining 50% will be sold to the public through an IPO process. The resulting ATHEX's participation in Boursa Kuwait's equity stake is ca. 0.779%, amounting to an investment of €1.03 million, as shown in the table below:

	Participation	Shares	14.2.2019 winning financial bid (0.237 KWD / share)	Investment (€)
ATHEX	0.779%	1,490,000	353,130.00	1,030,254.41
National Investment Co	14.407%	27,548,200	6,528,923.40	19,048,090.21
First Investment Co	14.407%	27,548,200	6,528,923.40	19,048,090.21
Arzan Financial Group	14.407%	27,548,200	6,528,923.40	19,048,090.21
Total (Consortium)	**44.000%**	**84,134,600**	**19,939,900.20**	**58,174,525.03**
Remaining	6.000%	11,472,900	2,719,077.30	7,932,889.78
Capital Markets Authority	50.000%	95,607,500	22,658,977.50	66,107,414.81
Total	**100.000%**	**191,215,000**	**45,317,955.000**	**132,214,829.62**

The active involvement of ATHEX in Boursa Kuwait is part of the Group's strategy to leverage its trading and post-trading technical and business know-how and systems in running successfully the Common Platform concept, with Cyprus Stock Exchange (CSE) since 2006, in providing systems and services to the Hellenic National Natural Gas System Operator (DESFA), in designing and supporting solutions for third parties in the financial industry and setting up to provide systems and services to the Hellenic Energy Exchange (ENEX).

As a next step, ATHEX along with its Consortium partners will closely cooperate with the CMA and Boursa Kuwait towards the implementation of the common strategic endeavors. The Consortium intends to support the expansion and development of Boursa Kuwait through the introduction of a number of new products, services and systems that will support the flow of capital from investors, both local and international, to issuers listed in Boursa Kuwait.

There is no event that has a significant effect in the results of the Company and the Group which has taken place or was completed after 31.12.2018, the date of the 2018 annual financial statements and up until the approval of the annual financial statements by the Board of Directors of the Company on 18.03.2019.

(Amounts in thousand euro unless otherwise noted) 150

Athens, 18 March 2019

THE CHAIRMAN OF THE BoD

GEORGE HANDJINICOLAOU ____________________________

THE CHIEF EXECUTIVE OFFICER

SOCRATES LAZARIDIS ____________________________

THE CHIEF FINANCIAL OFFICER

VASILIS GOVARIS ____________________________

THE DIRECTOR OF FINANCIAL MANAGEMENT

CHRISTOS MAYOGLOU ____________________________

THE DEPUTY DIRECTOR OF FINANCIAL CONTROL, BUDGETING & INVESTOR RELATIONS

CHARALAMBOS ANTONATOS

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