ATHEX
Athens Stock Exchange

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

1st HALF 2019 INTERIM FINANCIAL STATEMENTS

For the period 1 January 2019 – 30 June 2019

In accordance with the International Financial Reporting Standards

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Table of contents

1. DECLARATIONS BY MEMBERS OF THE BOARD OF DIRECTORS

(in accordance with article 5 of Law 3556/2007)

WE DECLARE THAT

1. to the best of our knowledge, the separate and consolidated 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 30.06.2019 and the results for the 1st half of 2019 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 1st half of 2019 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 separate and consolidated Financial Statements for the 1st half of 2019 are those that have been approved by the Board of Directors of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX) on 25.07.2019 and have been published by being uploaded on the internet, at www.athexgroup.gr.

Athens, 25 July 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**	**GIORGOS DOUKIDIS** **ID: X-468731**

2. REPORT OF THE BOARD OF DIRECTORS

OF

"HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A."

FOR THE 1st HALF OF 2019

(in accordance with article 5 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 on the separate and consolidated Financial Statements for the period that ended on 30.06.2019, in accordance with Law 4548/2018 and article 5 of Law 3556/2007.

The 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 28.06.2019 at 868.48 points, 14.6% higher than the close at the end of the 1st half of 2018 (757.57 points). The average capitalization of the market was €51.3bn, reduced by 7.9% compared to the 1st half of 2018 (€55.7bn).

The total value of transactions in the 1st half of 2019 (€8.0bn) is 3.7% lower compared to the 1st half of 2018 (€8.3bn), while the average daily traded value was €66.7m compared to €68.1m in the 1st half of 2018, decreased by 2.1%. The average daily traded volume decreased by 26.0% (35.9m shares vs. 48.5m shares).

In the derivatives market, total trading activity dropped by 24.4% (1st half 2019: 5.8m contracts, 1st half 2018: 7.6m), while the average daily traded volume decreased by 23.2% (48.1 thousand contracts vs. 62.6 thousand).

Business Development

Organized market

Significant corporate actions – Rights issues

- VARVARESOS, MOTODYNAMIKI and CRETA FARM increased their share capital through the exercise of the preemption right by existing shareholders, raising a total of €12.5m.
- 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.
- INTERTEK listed new shares that resulted from a reverse stock split
- AUTOHELLAS listed new shares that resulted from a stock split.
- EPLSILON NET increased its share capital through the distribution of bonus shares to existing shareholders.
- EUROBANK ERGASIAS increased its share capital by absorbing the listed company GRIVALIA PROPERTIES REIC.

In addition:

- PERSEUS, HTO (OTE), ALPHA TRUST ANDROMEDA, EPILEKTOS and GRIVALIA PROPERTIES reduced their share capital due to the cancellation of 15,225,971 own shares.
- The shares of KRITON ARTOS, DRUCKFARBEN, HYGEIA and MINOAN LINES were delisted from the trading and clearing systems.

Roots program

During the 1st half of 2019, informational events presenting the Roots program and the financing solutions through the Athens Exchange continued. As part of this effort, presentations took place in Attica, Thessaloniki and Crete. In June 2019 the evaluation process of the applications that have been submitted until May began. The program continues to accept applications.

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), the European Bank for Restructuring & Development (EBRD), the Ministry of Foreign Affairs and the Ministry of Finance & Development. Through the mobilization of key participants in the capital market and business ecosystem, it aims to facilitate access to the Greek capital market by Small and Medium Sized Enterprises (SMEs) and Startups as an alternative for financing their business plans.

Other events to boost entrepreneurship

The Ministry of Economy and Development, the European Bank for Reconstruction and Development (EBRD), and the Athens Exchange (ATHEX) signed in February 2019 a Memorandum of Understanding to join forces to boost capital market activity and increase the capacity of small and medium-sized enterprises (SMEs) for initial public offering (IPO) or corporate bond issuance on the Athens Stock Exchange.

With the support of the EBRD-Greek Technical Assistance Fund, the new SME Pre-listing Support Program will extend tailored advisory services to SMEs wishing to access the local capital market. Interested SMEs can apply to the program with an expression of interest through the Roots website (www.roots-program.com).

A Memorandum of Understanding was signed in February 2019 between the Athens Exchange (ATHEX) and the Economic Chamber of Greece (ECC) outlining a new partnership that aims at the launch of initiatives and the implementation of actions, on the basis of their common views.

The purpose of the MoU is to reinforce synergies between the business and academic communities and the market, more particularly through information, training, research and data analysis.

As a result of the signing of the MoU, the two organizations carried a study titled “The Exchange as a driving force for new funding.” This study was carried out from 15 March to 3 April 2019 and 1,700 economists – members of the ECC participated. The results of this study were presented in an event on the Athens Exchange in June 2019.

In addition, the Athens Exchange supported the 2nd Business Idea Contest of the Agricultural University in the process of finding mentors and connecting them with the broader business ecosystem. Executives from the Exchange and other enterprises were mentors of the Contest, undertaking the task of advising the teams in matter of marketing and financial analysis, while at the same time conveying to the teams current market know-how. Technical support of the contestants was undertaken by professors of the Agricultural University.

The awards ceremony took place at the Athens Exchange, and the winning teams received cash prizes sponsored by the Bank of Greece.

Through this initiative, the aim of the Exchange was on the one hand to assist the teams in developing their initiatives, and on the other to contribute to collaboration in order to develop entrepreneurship.

The Athens Exchange as a provider of technical, operational and business services to Boursa Kuwait

The project “Collaboration proposal with Boursa Kuwait” consists of the intention by the Capital Markets Authority of Kuwait (CMA) to restructure the operating framework (organization, regulatory framework, markets and products) of Boursa Kuwait, the sole market operator, and one of the leading exchanges in the Gulf region, so that it is compatible with international standards (international market benchmarking), thus also upgrading its presence in the international investment environment.

In this context, and following the proposal and selection of the Athens Exchange (ATHEX) (November 2018) as an international operator of capital markets and provider of technical, operational and business services, into the final round which consisted of the submission of an offer to obtain 44% of the share capital of Boursa Kuwait, through the creation of a Consortium with the largest possible participation of qualified local companies, listed groups in Kuwait, and in particular Arzan Financial Group (ARZAN), First Investment Company (FIC) and National Investments Company (NIC).

On February 14th 2019, the above proposal won the contest. The participation of the Athens Exchange in Boursa Kuwait is approximately 0.8% corresponding to an investment of approximately €1m.

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 2008, 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 (HenEx).

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.

Collaboration with HenEx for its regulatory adaptation

This task is part of an overall project that is being carried out by ATHEX to support the HenEx Group (HenEx and its subsidiary Energy Clear) with services and infrastructure.

As part of this project, during the period in question the following tasks were carried out:

- The HenEx derivatives market was designed,
- Consultation with potential market participants and the relevant regulatory authorities (HCMC and RAE) took place;
- The final list of required deliverables to complete the HenEx licensing dossier as an Energy Derivatives Exchange was arranged;
- The above deliverables were arranged; and
- The Regulation on Trading Energy Derivatives was drafted

Public offers – listed company buyout offers

- January 2019 – The registration of the public offer for NEXANS shares was competed
- January 2019 – The registration of the public offer for DRUCKFARBEN shares was competed
- February 2019 - The registration of the public offer for HYGEIA shares was competed

Mandatory buyouts of listed companies (Squeeze outs)

- April 2019 – The squeeze out of the remaining shares of DRUCKFARBEN was completed
- April 2019 - The squeeze out of the remaining shares of HYGEIA was completed
- April 2019 - The squeeze out of the remaining shares of NEXANS was completed

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 the 1st half of 2019 ATHEXCSD actively participated or completed the following tasks:

- Implementation of compliance actions by ATHEXCSD in the context of its licensing process in accordance with the CSDR Regulation and law 4548/2018. At the same time, the key consultation documents with all stakeholders on the key adaptation issues of the core and ancillary services provided by ATHEXCSD (to operators, issuers and investors) are being prepared.

- 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 EU 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.

Participation in the project to consolidate the Eurosystem Target2 services ("T2/T2S Consolidation")

The project concerns the consolidation of the Target2, T2S and TIPS services of the Eurosystem, both technically and operationally, in a new consolidated platform ("T2/T2S Consolidation"). The goal of the new consolidated platform is to respond to the changing needs of the market, replacing Target2with a new Real Time Settlement System (RTGS), optimizing liquidity management across all Target2 services.

The operation of the new consolidated platform is scheduled to begin in November 2021. Communication will take place through ISO 20022 messages. During the 1st half, the first specification documents were published for consultation [User Detailed Functional Specifications v1.1 - Central Liquidity Management (CLM) and User Detailed Functional Specifications v1.1 – Real-time gross settlement (RTGS)]. Without prejudice to ongoing statutory audits to be continued until the autumn of 2019, SIA-COLT and SWIFT will conclude a contract with the Eurosystem to offer connectivity to all Eurosystem market infrastructure services through Eurosystem Single Market Infrastructure Gateway (ESMIG).

Participation of the Group in the above project concerns the appropriate and timely adjustment of the ATHEXCSD and ATHEXClear services to the planned consolidated Target2 services platform ("T2/T2S Consolidation"). During the 1st half of 2019 the detailed evaluation of the business and technical implications began on the timely adaptation of the ATHEXCSD / ATHEXClear systems and processes to the new consolidated Target2 services platform.

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 the 1st half of 2019 periodic (monthly and every 4 months) audits were planned and 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 when the license is granted to ATHEXCSD to operate a central securities depository 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 amended by Regulation 2014/107/EU, and 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:

- May 2019 – Submission of the 3rd report for 2018, in implementation of the Multilateral Agreement by the Relevant Authorities of OECD ("Common Reporting Standard" CRS/DAC2) and Directive 2011/16/EU as amended by Directive 2014/107/EU, in accordance with Ministerial Circulars 1135/2017, 1137/2017, 1090/2018 & 1102/2018.
- June 2019 – Submission of the 2nd 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].

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, 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 (AXIAlei).

In particular, in the 1st half of 2019:

- 158 new LEI codes were issued by ATHEXCSD
- 945 LEI codes were renewed by ATHEXCSD
- 1 LEI code were transferred from another provided to ATHEXCSD
- 5 LEI codes were transferred from ATHEXCSD to another provider

Infrastructure support and management

The key task and activities which were completed or began and are in progress during the 1st half of 2019 are summarized as follows:

- Modernizing infrastructure - Active-Active architecture. Following the completion of the relevant procurements in the previous year, in the current year the implementation of the new Active-Active infrastructure architecture is in full development.

  In particular:

  1. Procurement and installation project of Active-Active data storage equipment. The installation and final parameterization of the new data storage systems and the new file servers (Hitachi HNAS) of the Group has been completed. Data transfer to the new storage is more than 80% complete and is expected to be completed in the middle of July.
  2. Procurement of fiber optic lighting equipment (DWDM). During the 1st half of 2019, the parameterization of all devices installed at the three points of presence of the Group in Attica (Athinon Ave, Koropi and Metamorfosi) was completed and good operation tests of the infrastructure have been carried out.

3. Procurement of servers for the virtualized environment (VMWARE). Proof of concept was carried out using HPE Synergy & Huawei equipment. The provision of Cisco UCS equipment will reduce the size of the final procurement. A study to host Oracle infrastructure on IBM Power servers, with significant potential cost savings in Oracle licensing is being carried out.
4. Redesign of the layout for the data centers & implementation of new structured cabling. Completed during the 1st half of 2019 to allow the installation of new equipment.
5. Procurement and installation of intranet and ATHEXNet network equipment. Receipt of the equipment from Unisystems was completed, as well as physical installation of network equipment in the two (2) data centers of the Group on Athinon Ave. In addition, the Security High Level Design (Security LLD) architecture was finalized based on the current technological capabilities and security design.

- Energy Exchange. During the 1st half of 2019 the relocation of EnergyClear users was completed, and development and UAT infrastructure of the applications developed internally for the Energy Exchange were delivered. In addition, third party application (e.g. EUPHEMIA), necessary to connect HenEx services with other European energy exchanges, were installed and parameterized.
- As part of the renewal of the network infrastructure, the sub-project of installing the ITSM tool SMAX (Microfocus SMAX) which will allow the Infrastructure Division to provide services with higher effectiveness and measurable cost, is being carried out.
- Participation in a contest by the Hellenic Air Force to provide fifty two (52) recognized digital certificates using a USB token device. Evaluation of the tenders has not been completed.
- Implementation of the financed project titled “eIDAS enabled i-Banking (eIB)” in cooperation 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 use of digital signatures and eID in banking to implement digital on-boarding client processes.
- Participation in the contest “2nd generation Digital Tachograph” by the Ministry of Transportation to provide digital certificates to Greek truck drivers, with a total budget of €360,000 over three years for ATHEX’s participation.
- Implementation of a Digital on-Boarding solution with PPA/PCT [Piraeus Port Authority] (member of Cosco) concerning the automation of a mechanism for identifying PCT users using single-use qualified digital signatures. This solution has been implemented in cooperation with Intelli-Solutions which in this context has assumed the role of LRA (Local Registration Authority) on behalf of ATHEX.
- Participation in the financed project Research – Innovate - Create (NSRF [ESPA] project) in cooperation with the Agricultural University and other institutions to implement a project aiming at the development of an electronic platform (using recognized digital signatures) of intelligent support of integrated supply-chain services.
- Reaching a significant market share of the sale of PSD2 certificates to Greek Banks and Trusted Payments Providers as a result of timely obtainment of the necessary certification (first and only in Greece).

Energy market development project (spot)

The Hellenic Energy Exchange together with the ATHEX Group formed a preparation team to design the clearing and risk management model for the Day Ahead and the Intraday market.

The participation of ATHEXClear in the above workgroup is summarized in the following tasks:

- Preparation of presentations to the participants in the electricity market
- Development of the operating risk management framework for HenEx
- Specifications for the EnExClear Clearing System
- Documentation for the EnExClear Clearing System
- Completion of the “Clearing of Transactions in the Day Ahead and Intraday Market Rulebook” and the relevant decisions of EnExClear

- Communication with RAE (Regulatory Authority for Energy) regarding the regulatory framework
- Specification of the risk management model and the algorithm for determining the clearing fund.

Expansion of the Clearing license to derivative financial products on electricity indices and natural gas in accordance with the EMIR Regulation

The Hellenic Energy Exchange plans to list for trading derivative financial products (futures and options) on electricity indices and natural gas in the Greek market. Under the MiFID Directive, these products are subcategories of derivatives financial products on commodities and will be traded in HenEx's regulated market. As such, these products must be cleared by a recognized Central Counterparty in accordance with the EMIR Regulation (648/2012).

According to the EMIR Regulation, ATHEXClear, as a recognized Central Counterparty must extend its clearing license in order to undertake the clearing of derivative products on electricity.

The extension of the license concerns the clearing of financial products (future contracts and option contracts – options on futures) on commodities for the subcategories (a) electricity and (b) natural gas as follows:

1. Futures with electricity indices as underlying
2. Options with electricity index futures as underlying
3. Futures with natural gas indices as underlying
4. Options with natural gas index futures as underlying

The relevant tasks, especially in relation to risk management, concern:

- determining and measuring the margin model and the correlation model
- determining stress-test scenarios and their measurement
- supporting the work group in defining the clearing model
- providing technical specifications for the fixing algorithm (arbitrage free pricing),
- supporting the external consultant in carrying out the successful certification of the model
- supporting HenEx in risk management matters and participating in meetings with institutions (e.g. RAE)
- fulfilling all necessary regulatory requirements in order to submit the dossier for extending the license

Implementation of a new margin and haircut model

In April 2019, during the first regular adjustment of risk management parameters, the new margin and haircut model management was implemented in the production environment. The preparation of the implementation of the new model mainly concerning the following:

- Determining the requirements for DSS / RI.VA and control (UAT).
- Supporting clearing members and system vendors in their efforts to migrate to the new system (RI.VA. margin replication, technical and business support, organizing presentations etc.).

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 project consisted of supporting the external consultant to carry out the successful certification of the model.

Development of an application to automatically calculate risk management parameters

The 1st phase of the project to develop a system for calculating risk management parameters was completed. The project is part of a wider framework to save resources and reduce operating risk for the Company.

The project consisted of:

- Completing the technical specifications for developers (the task began in 2018).
- Supporting developers in understanding and implementing the specifications (replication of calculations et al.)

Participation in the EU-wide stress test

ATHEXClear participated in the pan European stress-test organized by ESMA. ESMA determined the calculation methodology, the position dates as well as the extreme market conditions scenario and assigned to the clearing houses being supervised to carry out calculations and report the results of these calculations to the supervisory authority.

The exercise concerned the following risks:

- Credit Counterparty risk
- Liquidity risk
- Concentration risk

The project concerned:

- The ad-hoc development of application to carry out the calculations;
- Carrying out controls to ensure the correctness of the results; and
- Supporting the Hellenic Capital Market Commission and its advisor in carrying out quality controls

The exercise has not yet been completed as data quality controls by ESMA continue.

Certification / Education service - ATHEX Academy

In order to achieve the objective aim of the Certification / Education department, which is to promote and develop capital market knowledge through the provision of quality educational services to interested parties, it was deemed necessary to collaborate with an external associate who would provide specialized seminars / certifications through exclusive agreements with international institutions and with proven experience. As a result, after a market search, Study Smart was selected, with which an agreement was signed and the new brand was launched: “ATHEX Academy.”

On 27 May, an event was held in order to present the ATHEX Academy program to the market ecosystem with the participation of 50 executives, mainly from the HR departments of listed companies and members. At the event:

- ATHEX Academy was launched
- The collaboration between the Athens Exchange Group and Study Smart was announced
- The new, enriched educational activity program and international professional certifications was presented.

During the 1st half of 2019, ATHEX Academy supported the new products of the Group through educational initiatives for market professionals and investors, with two seminars on the electricity market, as well as with a seminar for the bond market. The following seminars were attended by 92 persons.

The number of high school and university students that visited the Exchange during the 1st half of 2019 was 1,332. In particular:

- Nine (9) university groups – 390 students, and
- Twenty four (24) high schools – 942 students

Through these educational visits, the Exchange contributes to the substantial development of today's students and tomorrow's professionals in the cultivation of a positive mindset regarding the usefulness of capital markets, the development of the students' professional competence and the fight financial illiteracy.

Promotion initiatives

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

- In May 2019 the 2nd 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 brokerage analysts and improve the trading velocity of their stocks. Through the 550 one-on-one and group 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 June 2019 the 8th Greek Investment Forum was organized in New York, in collaboration with the American-Hellenic Chamber of Commerce and with the support of Enterprise Greece. In the Greek delegation 18 companies listed on the Athens Exchange participated, whose representatives had the opportunity during the 267 meetings that took place, to present their strategy and investment plans to institutional investors. As part of the Forum, a presentation titled "Outlook and prospects of the Greek economy." Besides the Forum, the Forum was combined with visits to Washington DC where delegates met with business and state authorities and influence groups, and in San Francisco for meetings with the technology, innovation and startup ecosystem.

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, 14 listed companies presented their results, their strategy for development and prospects for growth.

2nd Athens Stock Exchange ecosystem networking event

On 4 June 2019 the 2nd ATHEX Ecosystem Networking Event was organized successfully at the Athens Exchange, with the central theme: "Synergies, collaborations and opportunities in the capital markets."

More than 150 company executives participating at the event, among which brokerage and listed company executives, representatives of the Hellenic Capital Market Commissions, private and institutional investor representatives, as well as representatives from companies that participate in the wider ecosystem of the Greek capital market.

The purpose of the 2nd ATHEX Ecosystem Networking Event is to showcase the fact that companies and institutions, through cooperation and common targeting can contribute substantially to the development of entrepreneurship and thus to the recovery of the Greek economy.

This year's event was honored by the presence of Mr. Khaled Waleed Al-Falah, Director, Business Development, M.A. Kharafi & Sons and member of the Board of Directors of Boursa Kuwait and Mr. André Küüsvek, Director, Local Currency and Capital Markets Development, European Bank for Reconstruction and Development (EBRD).

At the event, for the second consecutive year, awards were given to members of the Athens Exchange, to broker analyst departments and to listed company Investor Relations Departments, which distinguished themselves with their contribution to the development of the capital market ecosystem.

The Network Forum Annual Meeting Athens 2019

The Athens Exchange Group participated as an event partner in the successful annual meeting "The Network Forum Annual Meeting 2019" which was organized in Athens from 11 to 13 June 2019.

The conference is a point of reference and meeting for more than 500 bank and investment services firm executives from across the world, giving them a forum to discuss matters of significance that mainly concern post-trading activity.

The Athens Exchange Group represented and Greek capital market and, supporting the conference, had its own booth at the conference, thus allowing its representatives to directly provide information on the services offered by the Group as well as the imminent changes that the implementation of the European CSDR Regulation will bring which will alter the post-trading services landscape.

Preparation for the imminent exit of the United Kingdom from the European Union (Brexit)

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 were contacted by the Member Support Unit of the Group in March 2018 in order to reveal to the Exchange their plans in view of the upcoming exit of Great Britain from the European Union.

All of the above members informed that they will apply again to obtain the status of remote member in the ATHEX cash market through other subsidiaries domiciled within the European Union, and that the existing remote members domiciled in Great Britain will give up their remote member status before the final date of Great Britain's exit from the European Union. As a result, all new remote members will be active for some time alongside with the current ones until the final date of Great Britain's exit from the European Union.

Comment on the results

First Half 2019 results of the Group

Turnover in the 1st half of 2019 for the Athens Exchange Group was €14.2m compared to €14.7m in the 1st half of 2018, decreased by 3.2%. Approximately 54% of the turnover of the Group is from fees on trading, clearing and settlement of trades on the Athens Exchange.

In the 1st half of 2019 EBITDA was €5.0m compared to €5.3m in the 1st half of 2018, reduced by 6.6%.

Earnings Before Interest and Taxes (EBIT) were €3.0m vs. €3.7m in the 1st half of 2018, reduced by 19.9%.

After deducting €917 thousand in income tax, the net after tax earnings of the Athens Exchange Group amounted to €2.239m compared to €2.758m, reduced by 18.8%. After including Other Comprehensive Income (valuation of shares), earnings amount to €3.4m compared to €2.7m in the 1st half of 2018, increased by 24.8%.

Parent Company of the Athens Exchange Group

For the parent company, turnover was €7.0m vs. €7.2m, reduced by 3.2% compared to the 1st half of 2018, while net after tax profits were €3.8m in the 1st half of 2019 compared to €1.8m in the 1st half of 2018, increased by 108%.

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 30.06.2019 the share price closed at €3.064 and as a result the valuation of the Bank of Piraeus shares was €2,047,563.96, a gain of €1,486,221.80 compared to the valuation on 31.12.2018 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 30.06.2019. In the Statement of Financial Position of 30.06.2019, 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 30.06.2019.

On 30.06.2019 at the BoG bank account cash market margins of €128.7m and derivatives market margins of €59.5m 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 Annual General Meeting of 30.05.2019 to return €0.11 per share with an equal reduction in the stock’s par value, the share capital became €35,001,840 divided into 60,348,000 shares with a par value of €0.58 each.

The Equity of the Group on 30.06.2019 was €104.5m and the Company’s €90.1m.

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 did not possess any treasury stock.

Dividend policy

The Annual General Meeting of Hellenic Exchanges-Athens Stock Exchange shareholders on 30.05.2019 decided to distribute dividend amounting to €3,017,400 or €0.05 per share to shareholders. The ex-date of the right to the dividend was on 05.06.2019, and the dividend was paid on 12.06.2019.

The Annual General Meeting of 30.05.2019 also approved the proposal of the BoD to return capital amounting to €6,638,280 or €0.11 per share. The ex-date will be on 05.08.2019 and the capital return will be paid on 12.08.2019.

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 case has been referred to the Court of First Instance and a court date on 24.9.2019 has been set.

Related party transactions

Transactions that concern payroll costs for 14 executives and the executive members of the BoD for the 1st half of 2019 amounted to €648 thousand for the Group and €437 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 30.06.2019. For the other related party transactions, see note 5.43.

Branch Offices

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

Prospects for 2019

The expected improvement of the investment climate will provide opportunities for capital raisings through the capital market. For the remainder of 2019 new company listings and rights issues are planned, which is expected to rejuvenate 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. In addition the Group is penetrating new markets, such as its participation in the Energy Exchange and strengthens is international presence through its collaborations and participations in the Exchanges of Kuwait and Lebanon.

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 administrative, IT and IT support 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.

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. Management of the Group monitors and manages strategic, financial and operational risks as part of the internal control and corporate risk management system.

Athens Exchange Clearing House (ATHEXClear), based on its license granted in 2015 to operate under EMIR (European Market Infrastructure Regulation), acts as a recognized Central Counterparty (CCP) for clearing cash and derivative markets products and as such is obliged to satisfy the strict requirements of the current regulatory framework concerning risk management. Even though risk management at the Group concerns all companies and risk categories, ATHEXClear due to the nature of its operations manages credit counterparty risk and liquidity risk to a greater extent.

The strict internal and external regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the frameworks for risk management and the decisions of the BoD, the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, 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), as well as Commission delegated Regulation (EU) 2017/2154 of 22 September 2017 supplementing Regulation (EU) 600/2014 of the European Parliament and of the Council concerning regulatory technical standards for the arrangements for indirect clearing.

Finally, the Group maintains and applies a Data Security Policy framework for the purpose of its smooth and safe operation, limiting information risks and the related operational risk based on international standards and best practices.

Risk Strategy and Risk Management

In accordance with the strategy of the Group, the risk appetite level for operational risk corresponds with the loss absorption ability of ATHEXClear. Risk tolerance is based on a reasonable relationship between the estimated cost of not managing it and the flexibility that risk tolerance allows, in order to 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. ATHEXClear has zero tolerance for credit counterparty risk and liquidity risk in accordance with regulatory requirements and the company’s strategy.

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 proactively but also react quickly and effectively in case risk events arise.

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 risk management function of the company. In particular, the BoD approves the risk management framework on the basis of its policies and strategic choices. The risk management strategy is aligned with the business goals of the company and the Group. In addition, the BoD contributes to the promotion of a proper approach to risk management at all levels of the company, improving risk awareness and promoting open communication throughout the organization.
- *Risk Committee*, which advises the Board of Directors on risk management matters.
- *Strategic Investments Committee*, which determines policies and standards for the investment strategy, financing principles and liquidity management.
- *Risk Management Department*, which is independent from the other departments of the company, and implements and maintains a comprehensive risk management framework for the company, including the methodologies for detecting, measuring, evaluating, monitoring and reporting of risks, as well as data collection related to operational risk management, the operational risk events and accosted potential losses. The key assumptions, data sources and processes used in measuring and monitoring risk are documented and tested for reliability on a regular basis through the audit and review framework and the validation framework. The Risk Management Department possesses the required authority, the required resources, expertise and access to all relevant information.
- *Chief Risk Officer*, heading the Risk Management Department, who promotes and develops the risk management framework of the company and submits amendment proposals to the BoD for approval. On matters of risk management he/she reports to the BoD directly or through the Risk Committee.
- *Organizational Units* which are responsible for recognizing and managing risks within their scope and participate in the overall risk management at the Group.

Risk Categories

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

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

Financial Risk

- Credit Counterparty risk (credit risk arising 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 advent of credit counterparty risk
- Credit risk (mainly from the investment of own assets)
- Liquidity risk (risk of insufficient cash flows), mainly as a result of the advent 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

This is the realization of lower than expected profits or even losses due to erroneous business decisions or strategies concerning IT systems, technology, products and services. External factors such as changes in turnover, the cost of inflows, competition and the overall economic climate are of vital importance. Technological development in the industry across Europe as well as further consolidation and liberalization of European capital markets (MiFID II, CSDR, EMIR II) pose a challenge for the current business model.

Description of categories and main risk factors

Counterparty Risk 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. Thus ATHEXClear bears the risk of default by its Clearing members, i.e. of their obligations to clear and settle their transactions, operating as buyer to every seller and seller to every buyer.

ATHEXClear has enacted and applies a number of mechanisms and maintains sufficient pre-funded financial resources to cover the risks that it assumes and 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 BoD.

ATHEXClear applies two (2) lines of defense concerning its ability to absorb losses: (a) margins paid by members for carrying out transactions which covers the greatest expected market price volatility also taking into consideration extreme but plausible market conditions; (b) the Default Fund, which covers at least the loss that may be caused by the default of the two (2) largest clearing member groups against which ATHEXClear has the greatest risk exposure under extreme but plausible market conditions for each services (securities, derivatives) separately. In order to ascertain the adequacy of the Default Fund, ten (10) different scenarios of extreme market conditions (stress tests) are carried out on a daily basis. In case of non-adequacy clearing members are called to contribute additional funds. Moreover, ATHEXClear has a strong capital base with which it can absorb potential losses beyond the lines of defense.

In order to obtain the status of a Clearing Member, the FI 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.

ATHEXClear monitors on a daily basis and calculates at end-of-day (and also during the day in almost real time) the required margin of each clearing portfolio of each clearing members and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities. Based on the required margins and blocked collaterals, the credit limits assigned to members are reviewed on a continuous basis and compliance is checked in real time during the trading session.

In addition, it manages the Default Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in accordance with the provisions of the Clearing Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR.

The risk management models (margin / haircut methodology, stress test methodology) and their parameters are examined as to their effectiveness on a regular basis (daily margin and haircut back-testing and default fund coverage, monthly sensitivity check of the margin model as to changes in estimated risk and on a quarterly basis reverse stress test). The methodologies and the risk management models 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, cash resources are deposited with the Bank of Greece, a fact that minimizes its risk exposure.

At the other companies of the Group, short term cash 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 RATINGS

STANDARD & POOR' S						
Bank Institution	Country	Outlook	Long Term	Short Term	Long Term	Short Term
			Local Issuer Credit		Foreign Issuer Credit	
ALPHA BANK	GR	STABLE	B-	B	B-	B
EUROBANK	GR	STABLE	B-	B	B-	B
NATIONAL BANK OF GREECE	GR	STABLE	B-	B	B-	B
PIRAEUS BANK	GR	STABLE	B-	B	B-	B
HSBC BANK PLC	GB	STABLE	AA-	A-1+	AA-	A-1+

Out of total cash and cash equivalents of the Group of €72.7m, approximately €43.2m is deposited in Greek systemic banks, and the remaining approximately €29.5m (ATHEXClear) at the Bank of Greece.

Market Risk

The Group may be exposed, to a limited degree, to market risk resulting from its activities. Possible losses from market risk may arise if there is a default of a clearing member (credit counterparty risk) as ATHEXClear is obliged to carry out close-out transactions to cover the positions of the defaulting member, whose value is subject to fluctuations. The Group do not tolerate market risk and therefore it has established defense lines, in order to withstand under normal and stressed but plausible market conditions the loss that may arise from the simultaneous default of one or more clearing members with pre-funded resources.

Liquidity Risk

Exposure to liquidity risk as a whole for the Group is kept at very 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 set out in EMIR. On a daily basis, and under extreme but possible market conditions (stress tests), it is examined whether cash required will be sufficient, following the simultaneous default of the two (2) groups of clearing members to which ATHEXClear has the greatest liquidity claim for closing-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. If the available cash assets are not enough, immediate remedial measures are taken.

Operational risk

The Group does not seek to assume operating risk, but accepts limited exposure to risk which is based on a reasonable relations between the expected cost of non-management and the flexibility that risk tolerance allows, in order to satisfy market needs, limit the cost to participants, maximize the exploitation of business opportunities while at the same time ensure the security of the market and compliance with regulatory requirements.

In addition, it accepts that operational risk may arise as a result the failure of systems, internal procedure, human failure or external factors. In particular, it is recognized that operational risk may arise among others because of: outsourcing activity, supervisory or regulatory non-compliance, business continuity failure, risks from IT systems, information security and project implementation.

Operational risk is maintained at acceptable levels, through a combination of good corporate governance and risk management, robust systems and audit controls.

In the 1st half of 2019 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. There were no major damages or monetary claims 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 operational risk

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

In particular for ATHEXClear, in accordance with EMIR Regulation, the capital requirements for operational risk is calculated on an annual basis, using the Basic Indicator Approach (BIA); in addition, an operational risk framework for monitoring operational risk is in place. ATHEXClear applies an operational risk management framework that allows the recognition, measurement, monitoring and management of operational risk. The most important measures for reducing operational risk are the implementation of a business continuity plan for all the critical services of the Group, action plans to deal with major risks the conclusion of insurance policies, as well as measures for ensuring compliance with new regulations. In particular, ATHEXClear follows a specific methodology for managing operational risk; according to it, it carries out on a regular basis RCSAs[1] in order to evaluate and categorize risks, maintains a loss data base[2], creates regular reports and works out action plans in order 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 and maintains 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

Potential losses from operational risks which the Group is not able to or does not wish to assume are covered by insurance contracts. 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 facilities and the work and IT equipment of the Group.

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

[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.

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 supervisory framework
- Monitor the compliance of the company with the legal and regulatory framework.
- Advise the business units on compliance matters
- Minimize compliance risk
- Develop and apply internal policies, rules and compliance measures on matters of conflict of interest, limiting outsourcing risk, complaint management, record keeping, protection of personal data etc.

Business risk

The Group recognizes that the advent of business risk depends on macroeconomic developments and is affected by external events 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 even the impairment of assets, etc.

In this context, the Group continually and systematically monitors developments and adapts to the environment.

In particular, for ATHEXClear, and in accordance with the EMIR Regulation, capital requirements for business risk 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 to 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 €18,814,696.00 for the period from 01.07.2019 to 31.07.2019.

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 01.07.2019 to 31.07.2019 is €14,014,914.00. 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 begun 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 2020 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 a Certified Auditor-Accountant.
- Approves the Articles of Association of the company, as drafted by notary act number 4874/15.06.2018.

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 €1,050,000 obtaining 21% of the share capital.

The shareholders with their stakes in the share capital of HenEx on 30.06.2019 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%

HEnEx published the 2018 Annual Financial Report, reporting net earnings of €101,504.39. The Annual General Meeting of HEnEx shareholders on 5.6.2019 decided not to distribute a dividend for fiscal year 2018.

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.

During the first half of 2019, the HCGC carried out the following tasks:

- It held informative meetings with representatives of institutions and various stakeholders, and actions promoting and showcasing its purpose.
- The Hellenic Fund and Asset Management Association was accepted as a Regular Member of HCGC.
- A scientific event was held in collaboration with the Athens Exchange on 12.03.2019 for corporate governance, the new company law and the law on corporate transformations, with the participation of expert legal and market professionals.
- HCGC participated as an Honorary Member at Diversity Charter Greece and the opening Conference on 9.5.2019.
- A seminar is planned for the first week of September in collaboration with SOL Crowe on issues of explaining financial statements, addressed to non-executive members of Boards of Directors of listed companies, and by the Hellenic Corporation of Assets and Participations (HCAP) on Regulatory Compliance and Corporate Governance addressed to Board members and senior company executives.
- Lastly, the review process of the Hellenic Corporate Governance Code has begun with the drafting of a new Code and the formation of individual working groups consisting of members of the 15member Corporate Governance Council as well as other market executives, to specialize on individual items of the Code.

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**

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 the 1st half of 2019, 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	**01.01-30.06.2019**	**01.01-30.06.2018**
Statement of Comprehensive Income		
Other Comprehensive Income	**0**	**0**
Share valuation	1,115	(71)
Total	**1,115**	**(71)**
Grand total	**1,115**	**(71)**

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

The adjusted Indices for the 1st half of 2019 compared to the corresponding period in 2018 that were unchanged, i.e. do not differ from the conventional indices, are the following:

- **EBITDA**
- **EBIT**
- **EBT**
- **EAT**
- **Cash Flows after Investments**
- **Return on Investment (ROI)**
- **Return on Equity (ROE)**
- **Degree of Financial Self-Sufficiency**

The adjusted Index for the 1st half of 2019 compared to the 1st half of 2018 which was affected was Adjusted EPS, which shows a 20% deterioration.

Greater analysis concerning the definition and basis for calculation of the APMs is provided in note 5.49 of the present 1st half 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:

The composition of the Board of Directors that was elected by the General Meeting on 30.05.2019 with a four year term of office is the following:

HELLENIC EXCHANGES - ATHENS STOCK EXHANGE S.A. HOLDING	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Alexios Pilavios	Vice Chairman, non-executive member
Socrates Lazaridis	Chief Executive Officer, executive member
Alexandros Antonopoulos	Independent non-executive member
Konstantinos Vassiliou	Non-executive member
Giorgos Doukidis	Independent non-executive member
Ioannis Emiris	Non-executive member
Polyxeni Kazoli	Independent non-executive member
Sofia Kounenaki – Efraimoglou	Independent non-executive member
Ioannis Kyriakopoulos	Non-executive member
Adamantini Lazari	Independent non-executive member
Spyridoula Papagiannidou	Independent non-executive member
Nikolaos Chryssochoidis	Non-executive member

The composition of the Boards of Directors of the subsidiaries is the following:

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 30.06.2019

- Athens Stock Exchange and Bank Audi SAL participated in the competitive bid process that was organized by the Lebanese Capital Markets Authority (CMA) for the Establishment of a new Exchange (Electronic Trading Platform – ETP) in Lebanon, by forming a Consortium in which ATHEX contributed with its know-how as an International Operator and as Systems and Services provider and Bank Audi with its experience and leading position as a financial institution operating in Lebanon, and the wider Middle East and North Africa region.

  Following a selection process where 3 bids were submitted, the CMA awarded through a letter to the Bank Audi-ATHEX Consortium the establishment of the new Exchange. The Consortium will contribute $20 million to the ETP's share capital. ATHEX's related participation is expected to reach $1 million.

  The active involvement of ATHEX in the new Lebanese Exchange 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) since 2017, in designing and supporting solutions for third parties in the financial industry, in setting up to provide systems and services to the Hellenic Energy Exchange (ENEX) (since 2018) and its recent involvement in the privatization of Boursa Kuwait (2019).

  As a next step, ATHEX along with Bank Audi will closely cooperate with the CMA to implement an effective capital market which will appeal to local and international investors and contribute to the growth of the Lebanese Capital Markets.

- Following the vote on the new government's policy plan, a new law is expected to be voted that will set the corporate income tax rate at 24%, from 28% currently, for fiscal year 2019. It should be noted that the Company used the 28% rate in calculating income tax on the earnings of the 1st half.

There is no event that has a significant effect in the results of the Group which has taken place or was completed after 30.06.2019, the date of the 1st half 2019 interim financial statements and up until the approval of the interim financial statements by the Board of Directors of the Company on 25.07.2019.

Athens, 25 July 2019

The Board of Directors

3. REVIEW REPORT BY THE INDEPENDENT CERTIFIED AUDITORS ACCOUNTANTS

[Translation from the original text in Greek]

Report on Review of Interim Financial Statements

To the Board of directors of "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A"

Introduction

We have reviewed the accompanying interim company and consolidated statement of financial position of "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A" (the "Company"), as of 30 June 2019 and the related company and consolidated statements of profit or loss and other comprehensive income , changes in equity and cash flow statements for the six-month period then ended, and the selected explanatory notes that comprise the interim financial statements and which form an integral part of the six-month financial report as required by L.3556/2007. Management is responsible for the preparation and presentation of these financial statements in accordance with International Financial Reporting Standards as they have been adopted by the European Union. Our responsibility is to express a conclusion on these financial statements based on our review.

Scope of Review

We conducted our review in accordance with International Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". A review of interim financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing, as they have been transposed into Greek Law and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

PricewaterhouseCoopers SA, 268 Kifissias Avenue, 15232 Halandri, Greece

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17 Ethnikis Antistassis Str, 55134 Thessaloniki, T:+30 2310 488880 F:+30 2310 459487

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying interim financial statements are not prepared, in all material respects, in accordance with International Financial Reporting Standards, as adopted by the European Union.

PricewaterhouseCoopers S.A.

268 Kifissias Avenue, 152 32 Athens

Reg. No. 113

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

Athens, 25 July 2019

4. INTERIM 1st HALF 2019 FINANCIAL STATEMENTS

for the period 1 January 2019 to 30 June 2019

In accordance with the International Financial Reporting Standards

4.1. Interim Statement of Comprehensive Income

		Group				Company			
		01.01	01.01	01.04	01.04	01.01	01.01	01.04	01.04
	Notes	30.06.2019	30.06.2018	30.06.2019	30.06.2018	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Revenue									
Trading	5.7	2,491	2,470	1,565	1,145	2,491	2,470	1,565	1,145
Clearing	5.8	4,358	4,636	2,725	2,134	0	0	0	0
Settlement	5.9	824	812	435	399	0	0	0	0
Exchange services	5.10	1,339	1,596	675	772	1,339	1,596	675	775
Depository services	5.11	1,262	1,386	750	739	0	0	0	0
Clearinghouse services	5.12	67	64	34	31	0	0	0	0
Market Data	5.13	1,318	1,536	677	1,090	1,422	1,663	728	1,151
IT services	5.14	248	227	121	106	232	206	114	96
Revenue from re-invoiced expenses	5.15	540	659	280	445	477	598	247	417
Ancillary services (XNET, colocation, LEI)	5.16	1,137	1,096	573	578	529	395	308	221
Other services	5.17	646	220	273	144	512	304	171	185
Total turnover		**14,230**	**14,702**	**8,108**	**7,583**	**7,002**	**7,232**	**3,808**	**3,990**
Hellenic Capital Market Commission fee	5.18	(570)	(594)	(358)	(274)	(210)	(216)	(135)	(100)
Total revenue		**13,660**	**14,108**	**7,750**	**7,309**	**6,792**	**7,016**	**3,673**	**3,890**
Expenses									
Personnel remuneration & expenses	5.19	4,755	4,885	2,311	2,398	2,658	2,553	1,375	1,250
Third party remuneration & expenses	5.20	209	298	111	176	132	200	54	95
Utilities	5.21	367	321	192	170	59	36	22	19
Maintenance / IT support	5.22	736	582	460	316	484	426	285	242
Other Taxes	5.23	540	443	258	160	344	282	176	134
Building / equipment management	5.24	228	214	104	99	63	51	32	26
Other operating expenses	5.25	897	825	461	335	772	837	349	352
Total operating expenses before ancillary services and depreciation		**7,732**	**7,568**	**3,897**	**3,654**	**4,512**	**4,385**	**2,293**	**2,118**
Re-invoiced expenses	5.26	479	564	284	383	350	459	212	322
Expenses for ancillary services (XNET, LEI, IT)	5.27	465	642	322	385	157	100	144	78
Total operating expenses, including ancillary services before depreciation		**8,676**	**8,774**	**4,503**	**4,422**	**5,019**	**4,944**	**2,649**	**2,518**
Earnings before Interest, Taxes, Depreciation & Amortization (EBITDA)		**4,984**	**5,334**	**3,247**	**2,887**	**1,773**	**2,072**	**1,024**	**1,372**
Depreciation	5.28 & 5.29 & 5.30	(2,021)	(1,636)	(1,066)	(842)	(1,001)	(807)	(558)	(413)
Earnings Before Interest and Taxes (EBIT)		**2,963**	**3,698**	**2,181**	**2,045**	**772**	**1,265**	**466**	**959**
Capital income	5.34	236	334	115	165	117	200	57	96
Dividend income	5.31	0	0	0	0	3,210	803	3,210	803
Income from participations	5.47	21	0	21	0	21	0	21	
Financial expenses	5.34	(64)	(67)	(31)	(34)	(35)	(5)	(33)	(3)
Earnings Before Tax (EBT)		**3,156**	**3,965**	**2,286**	**2,176**	**4,085**	**2,263**	**3,721**	**1,855**
Income tax	5.42	(917)	(1,207)	(627)	(595)	(287)	(445)	(162)	(285)
Earnings after tax		**2,239**	**2,758**	**1,659**	**1,581**	**3,798**	**1,818**	**3,559**	**1,570**

(Amounts in euro thousands unless otherwise noted) 36

		Group				Company			
		01.01	01.01	01.04	01.04	01.01	01.01	01.04	01.04
	Notes	30.06.2019	30.06.2018	30.06.2019	30.06.2018	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Earnings after tax (A)		2,239	2,758	1,659	1,581	3,798	1,818	3,559	1,570
Valuation profits / (losses) during the period	5.33	1,486	(100)	1,245	234	1,486	(100)	1,245	234
Income tax included in other comprehensive income / (losses)		(371)	29	(311)	(68)	(371)	29	(311)	(68)
Other comprehensive income / (losses) after taxes (B)		**1,115**	**(71)**	**934**	**166**	**1,115**	**(71)**	**934**	**166**
Total other comprehensive income (A) + (B)		**3,354**	**2,687**	**2,593**	**1,747**	**4,913**	**1,747**	**4,493**	**1,736**

Distributed to:			
Company shareholders		3,354	2,687
Profits after tax per share (basic & diluted; in €)		0.056	0.045
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 interim financial statements of 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 37

4.2. Interim Statement of Financial Position

	Note	Group		Company	
		30.06.2019	31.12.2018	30.06.2019	31.12.2018
ASSETS					
Non-Current Assets					
Tangible assets for own use	5.28	23,659	23,551	1,321	931
Intangible assets	5.28	7,202	6,549	4,243	4,174
Real Estate Investments	5.30	2,185	2,287	2,185	2,287
Right of use assets	5.29	38	0	1,486	0
Investments in subsidiaries & other long term receivables	5.31	1,139	1,118	59,189	59,168
Financial assets at fair value through other income	5.33	3,080	561	3,080	561
Deferred tax asset	5.36	1,088	1,467	1,039	1,419
		38,391	**35,533**	**72,543**	**68,540**
Current Assets					
Trade receivables	5.32	3,959	3,118	2,119	1,818
Other receivables	5.32	10,113	9,081	6,924	7,031
Income tax receivable	5.32	0	374	17	295
Third party balances in Group bank accounts	5.35	190,485	153,358	1,550	1,398
Cash and cash equivalents	5.34	72,657	74,608	22,199	22,746
		277,214	**240,539**	**32,809**	**33,288**
Total Assets		**315,605**	**276,072**	**105,352**	**101,828**
EQUITY & LIABILITIES					
Equity & Reserves					
Share capital	5.37	35,002	41,640	35,002	41,640
Treasury stock	5.37	0	0	0	0
Share premium	5.37	157	157	157	157
Reserves	5.37	51,419	50,201	46,036	44,922
Retained earnings	5.37	17,858	18,740	8,836	8,055
Total Equity		**104,436**	**110,738**	**90,031**	**94,774**
Non-current liabilities					
Grants and other long term liabilities	5.38	50	50	50	50
Lease liabilities	5.29	29	0	1,446	0
Staff retirement obligations	5.39	1,826	1,794	1,135	1,118
Other provisions	5.39	1,360	1,360	1,300	1,300
Deferred tax liability	5.36	1,369	1,483	0	0
		4,634	**4,687**	**3,931**	**2,468**
Current liabilities					
Trade and other payables	5.40	14,574	6,305	9,061	2,408
Lease liabilities	5.29	9	0	54	0
Third party balances in Group bank accounts	5.35	190,485	153,358	1,550	1,398
Current income tax payable	5.42	648	0	0	0
Social Security	5.41	819	984	725	780
		206,535	**160,647**	**11,390**	**4,586**
Total Liabilities		**211,169**	**165,334**	**15,321**	**7,054**
Total Equity & Liabilities		**315,605**	**276,072**	**105,352**	**101,828**

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 interim financial statements of 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 38

4.3. Interim Six Month Statement of Changes in Equity

4.3.1. Group

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2018	**50,903**	**(1,162)**	**157**	**50,244**	**18,852**	**118,994**
Earnings for the period	0		0	0	2,758	2,758
Share valuation reserve	0	0	0	(71)	0	(71)
Total comprehensive income after taxes	**0**	**0**	**0**	**(71)**	**2,758**	**2,687**
Earnings distribution to reserves	0	0	0	114	(114)	0
Cancellation of treasury stock	(173)	1,162	0	(989)	0	0
Share capital return	(9,090)	0	0	0	0	(9,090)
Dividends paid				0	(3,029)	(3,029)
Balance 30.06.2018	**41,640**	**0**	**157**	**49,298**	**18,467**	**109,562**
Earnings for the period	0		0	0	269	269
Actuarial profit/ (loss) from defined benefit pension plans	0	0	0	0	6	6
Profits/(losses) from valuation of financial assets available for sale	0	0	0	(1,046)	0	(1,046)
Total comprehensive income after taxes	**0**		**0**	**(1,046)**	**275**	**(771)**
Formation of real estate revaluation reserves				1,949		1,949
Balance 31.12.2018	**41,640**	**0**	**157**	**50,201**	**18,740**	**110,738**
Earnings for the period	0		0	0	2,239	2,239
Earnings/(losses) from valuation of financial assets available for sale				1,114		1,114
Total comprehensive income after taxes	**0**	**0**	**0**	**1,114**	**2,239**	**3,353**
Earnings distribution to reserves	0	0	0	102	(102)	0
Share capital return (note 5.37)	(6,638)	0	0	0	0	(6,638)
Dividends paid (note 5.44)	0	0	0	0	(3,017)	(3,017)
Balance 30.06.2019	**35,002**	**0**	**157**	**51,419**	**17,858**	**104,436**

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 interim financial statements of 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 39

4.3.2. Company

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2018	**50,903**	**(1,162)**	**157**	**47,028**	**9,311**	**106,237**
Earnings for the period	0		0	0	1,818	1,818
Profits/(losses) from valuation of financial assets available for sale				(71)		(71)
Total comprehensive income after taxes	**0**	**0**	**0**	**(71)**	**1,818**	**1,747**
Cancellation of treasury stock	(173)	1,162	0	(989)	0	0
Return of share capital	(9,090)	0	0	0	0	(9,090)
Dividends paid				0	(3,029)	(3,029)
Balance 30.06.2018	**41,640**	**0**	**157**	**45,968**	**8,100**	**95,865**
Earnings for the period	0		0	0	(49)	(49)
Actuarial profit/ (loss) from defined benefit pension plans	0		0	0	4	4
Profits/(losses) from valuation of financial assets available for sale	0		0	(1,046)	0	(1,046)
Total comprehensive income after taxes	**0**	**0**	**0**	**(1,046)**	**(45)**	**(1,091)**
Balance 31.12.2018	**41,640**	**0**	**157**	**44,922**	**8,055**	**94,774**
Earnings for the period	0		0	0	3,798	3,798
Profits/(losses) from valuation of financial assets available for sale				1,114		1,114
Total comprehensive income after taxes	**0**	**0**	**0**	**1,114**	**3,798**	**4,912**
Share capital return (note 5.37)	(6,638)		0	0	0	(6,638)
Dividends paid (note 5.44)					(3,017)	(3,017)
Balance 30.06.2019	**35,002**	**0**	**157**	**46,036**	**8,836**	**90,031**

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 interim financial statements of 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 40

4.4. Interim Six Month Cash Flow Statement

	Notes	Group		Company	
		1.1-30.06.2019	1.1-30.06.2018	1.1-30.06.2019	1.1-30.06.2018
Cash flows from operating activities					
Earnings before tax		3,156	3,965	4,085	2,263
Plus / (minus) adjustments for					
Depreciation	5.28, 5.29, 5.30	2,021	1,636	1,001	807
Staff retirement obligations	5.19	33	28	17	16
Interest Income	5.34	(236)	(334)	(117)	(200)
Dividends received		0	0	(3,210)	(803)
Interest and related expenses paid	5.34	64	67	35	5
Plus/ (minus) adjustments for changes in working capital accounts or concerning operating activities					
Reduction/(Increase) in receivables		(1,873)	1,150	(194)	608
(Reduction)/Increase in liabilities (except loans)		8,067	7,769	6,521	8,587
Reduction/Total adjustments for changes in working capital		**11,232**	**14,281**	**8,138**	**11,283**
Interest and related expenses paid	5.34	(64)	(67)	(35)	(5)
Net inflows / outflows from operating activities (a)		**11,168**	**14,214**	**8,103**	**11,278**
Investing activities					
Purchases of tangible and intangible assets	5.28	(2,668)	(1,779)	(1,290)	(804)
Payment of participation in EnEx	5.46	0	(1,550)	0	(1,550)
Payment of participation in Boursa Kuwait		(1,032)	0	(1,032)	0
Interest received	5.34	236	334	117	200
Dividends received			0	3,210	803
Total inflows / (outflows) from investing activities (b)		**(3,464)**	**(2,995)**	**1,005**	**(1,351)**
Financing activities					
Special dividend (share capital return)	5.39	(6,638)	(9,090)	(6,638)	(9,090)
Dividend payments	5.49	(3,017)	(3,030)	(3,017)	(3,030)
Total outflows from financing activities (c)		**(9,655)**	**(12,120)**	**(9,655)**	**(12,120)**
Net increase/ (decrease) in cash and cash equivalents from the beginning of the period (a) + (b) + (c)		**(1,951)**	**(901)**	**(547)**	**(2,193)**
Cash and cash equivalents at start of period	**5.34**	**74,608**	**85,851**	**22,746**	**33,970**
Cash and cash equivalents at end of period	**5.34**	**72,657**	**84,950**	**22,199**	**31,777**

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 interim financial statements of 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 41

5. NOTES TO THE 1st HALF 2019 INTERIM 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.

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.

The interim financial statements of the Group and the Company for the 1st half of 2019 have been approved by the Board of Directors on 25.07.2019. 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.

5.2. Basis of preparation of the Company and Consolidated interim financial statements for the 1st Half of 2019

The company and consolidated six month 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 starting on 1.1.2019. 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

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 levied by the tax authorities during the clearing 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 5.42).

Provisions for doubtful claims

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).

The Group and the Company have formed a provision for doubtful claims 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 5.28, 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 whenever this provision is revised (note 5.19).

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 5.39).

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.

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.

5.3.1. 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.

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.

5.3.2. 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.

5.3.3. 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 and any impairments in value.

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 accounting value.

Other tangible owner-occupied 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.

5.3.4. 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 at 5 years.

(Amounts in euro thousands unless otherwise noted) 48

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.

5.3.5. 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 direct additional 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, assets are grouped at the lowest level for which there are discrete recognizable cash flows.

5.3.6. 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 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 30 June 2019.

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 retains the risks and benefits of ownership of the asset. When the Group neither transfers nor substantially retains all risks and benefits of the asset being transferred and retains 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 retained.

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.

5.3.7. 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.

5.3.8. 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.

5.3.9. 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.

5.3.10. 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 30.06.2019 and 31.12.2018. In the Statement of Financial Position of 30.06.2019 and 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 30.06.2019 and 31.12.2018 respectively.

5.3.11. 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.

5.3.12. 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.

5.3.13. 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 5.19).

5.3.14. 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.

5.3.15. 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, provisions are recognized on a discounted basis by using an interest rate before taxes that reflects 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 economic benefit is likely.

5.3.16. 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 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.

5.3.17. 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.

5.3.18. 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.

5.3.19. 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.

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.

5.3.20. 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 5 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.

5.3.21. 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. Starting on 1.1.2019 the new IFRS 16 “Leases” is applied.

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.

In accordance with the new IFRS 16, starting on 1.1.2019 the leases of the group are treated using the modified retroactive approach (notes 5.3.23).

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 and the Company lease office space. These leases are treated as operating leases.

5.3.22. 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 30 June 2019 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 available information.

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 30 June 2019 are as follows:

	Tier 1	Tier 2	Tier 3
Asset items			
Owner occupied tangible assets (Plots of land – buildings)			21,324
Financial assets at fair value through other income	2,048		1,032

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)			21,989
Financial assets at fair value through other income	561		

As mentioned in detail in note 5.28, the Group on 31.12.2018 performed an independent assessment of the properties by independent, recognized assessors.

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.

(Amounts in euro thousands unless otherwise noted) 56

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.

5.3.23. 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 1.1.2019. The Group's evaluation of the effect of these new standards, amendments to standards and interpretations is presented below.

Standards and Interpretations effective for the current financial year

IFRS 16 *"Leases"*

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.

The effect of this standard at the Group and Company level is described in note 5.29. Regarding the effect of the standard at the Company level, and as the operating leases are mainly related to the lease of the property at Athinon Avenue, which houses all of the companies of the Group and is being leased by the Hellenic Central Securities Depository, the Company will also recognize lease liability and right-of-use asset.

IFRS 9 (Amendments) *"Prepayment Features with Negative Compensation"*

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.

IAS 28 (Amendments) *"Long term interests in associates and joint ventures"*

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"*

The interpretation explains how to recognize 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"*

The amendments specify how companies determine pension expenses when changes to a defined benefit pension plan occur.

Annual Improvements to IFRS (2015 – 2017 Cycle)

The amendments set out below include changes to four IFRSs.

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.

Standards and Interpretations effective for subsequent periods

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.

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.

5.3.24. Rounding

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

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. Management of the Group monitors and manages strategic, financial and operational risks as part of the internal control and corporate risk management system.

Athens Exchange Clearing House (ATHEXClear), based on its license granted in 2015 to operate under EMIR (European Market Infrastructure Regulation), acts as a recognized Central Counterparty (CCP) for clearing cash and derivative markets products and as such is obliged to satisfy the strict requirements of the current regulatory framework concerning risk management. Even though risk management at the Group concerns all companies and risk categories, ATHEXClear due to the nature of its operations manages credit counterparty risk and liquidity risk to a greater extent.

The strict internal and external regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the frameworks for risk management and the decisions of the BoD, the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, 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), as well as Commission delegated Regulation (EU) 2017/2154 of 22 September 2017 supplementing Regulation (EU) 600/2014 of the European Parliament and of the Council concerning regulatory technical standards for the arrangements for indirect clearing.

Finally, The Group maintains and applies a Data Security Policy framework for the purpose of its smooth and safe operation, limiting information risks and the related operational risk based on international standards and best practices.

Risk Strategy and Risk Management

In accordance with the strategy of the Group, the risk appetite level for operational risk corresponds with the loss absorption ability of ATHEXClear. Risk tolerance is based on a reasonable relationship between the estimated cost of not managing it and the flexibility that risk tolerance allows, in order to 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. ATHEXClear has zero tolerance for credit counterparty risk and liquidity risk in accordance with regulatory requirements and the company's strategy.

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 proactively but also react quickly and effectively in case risk events arise.

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 risk management function of the company. In particular, the BoD defines the appropriate level of risk tolerance of the company and approves the risk management framework as part of its policies and strategic choices. The risk management strategy is aligned with the operational targets of the Company and the Group. IN addition, the BoD contributes to the promotion of a correct approach to risk management at all levels of the Company, strengthening risk awareness and promoting open communication throughout the organization.
- *Risk Committee*, which advises the Board of Directors on risk management matters.
- *Strategic Investments Committee*, which determines policies and standards for the investment strategy, financing principles and liquidity management.

- *Risk Management Department*, which is independent from the other departments of the company, and implements and maintains a comprehensive risk management framework for the company, including the methodologies for detecting, measuring, evaluating, monitoring and reporting of risks, as well as data collection related to operational risk management, the operational risk events and accosted potential losses. The key assumptions, data sources and processes used in measuring and monitoring risk are documented and tested for reliability on a regular basis through the audit and review framework and the validation framework. The Risk Management Department possesses the required authority, the required resources, expertise and access to all relevant information.

- *Chief Risk Officer*, heading the Risk Management Department, who promotes and develops the risk management framework of the company and submits amendment proposals to the BoD for approval. On matters of risk management he/she reports to the BoD directly or through the Risk Committee.

- *Organizational Units* which are responsible for recognizing and managing risks within their scope and participate in the overall risk management at the Group.

Risk Categories

The Group ensures that it deals with all risks, internal or external, and especially those that have been recognized as 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

- Credit Counterparty risk (credit risk arising 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 advent of credit counterparty risk
- Credit risk (mainly from the investment of own assets)
- Liquidity risk (risk of insufficient cash flows), mainly as a result of the advent of counterparty risk

Operating Risk

Risk due to inadequate or failed internal processes, people and systems, or from 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

This is the realization of lower than expected profits or even losses due to erroneous business decisions or strategies concerning IT systems, technology, products and services. External factors such as changes in turnover, the cost of inflows, competition and the overall economic climate are of vital importance. Technological development in the industry across Europe as well as further consolidation and liberalization of European capital markets (MiFID II, CSDR, EMIR II) pose a challenge for the current business model.

Description of categories and main risk factors

Counterparty Risk 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. Thus ATHEXClear bears the risk of default by its Clearing members, i.e. of their obligations to clear and settle their transactions, operating as buyer to every seller and seller to every buyer.

ATHEXClear has enacted and applies a number of mechanisms and maintains sufficient pre-funded financial resources to cover the risks that it assumes and 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 BoD.

ATHEXClear applies two (2) lines of defense concerning its ability to absorb losses: (a) margins paid by members for carrying out transactions which covers the greatest expected market price volatility also taking into consideration extreme but plausible market conditions; (b) the Default Fund, which covers at least the loss that may be caused by the default of the two (2) largest clearing member groups against which ATHEXClear has the greatest risk exposure under extreme but plausible market conditions for each services (securities, derivatives) separately. In order to ascertain the adequacy of the Default Fund, ten (10) different scenarios of extreme market conditions (stress tests) are carried out on a daily basis. In case of non-adequacy clearing members are called to contribute additional funds. Moreover, ATHEXClear has a strong capital base with which it can absorb potential losses beyond the lines of defense.

In order to obtain the status of a Clearing Member, the FI 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.

ATHEXClear monitors on a daily basis and calculates at end-of-day (and also during the day in almost real time) the required margin of each clearing portfolio of each clearing members and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities. Based on the required margins and blocked collaterals, the credit limits assigned to members are reviewed on a continuous basis and compliance is checked in real time during the trading session.

In addition, it manages the Default Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in accordance with the provisions of the Clearing Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR.

The risk management models (margin / haircut methodology, stress test methodology) and their parameters are examined as to their effectiveness on a regular basis (daily margin and haircut back-testing and default fund coverage, monthly sensitivity check of the margin model as to changes in estimated risk and on a quarterly basis reverse stress test). The methodologies and the risk management models 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, cash resources are deposited with the Bank of Greece, a fact that minimizes its risk exposure.

At the other companies of the Group, short term cash 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 RATINGS

STANDARD & POOR' S						
Bank Institution	**Country**	**Outlook**	**Long Term**	**Short Term**	**Long Term**	**Short Term**
			Local Issuer Credit		**Foreign Issuer Credit**	
ALPHA BANK	GR	STABLE	B-	B	B-	B
EUROBANK	GR	STABLE	B-	B	B-	B
NATIONAL BANK OF GREECE	GR	STABLE	B-	B	B-	B
PIRAEUS BANK	GR	STABLE	B-	B	B-	B
HSBC BANK PLC	GB	STABLE	AA-	A-1+	AA-	A-1+

Out of total cash and cash equivalents of the Group of €72.7m, approximately €43.2m is deposited in Greek systemic banks, and the remaining approximately €29.5m (ATHEXClear) at the Bank of Greece.

Market risk

The Group may be exposed, to a limited degree, to market risk resulting from its activities. Possible losses from market risk may arise if there is a default of a clearing member (credit counterparty risk) as ATHEXClear is obliged to carry out close-out transactions to cover the positions of the defaulting member, whose value is subject to fluctuations. The Group do not tolerate market risk and therefore it has established defense lines, in order to withstand under normal and stressed but plausible market conditions the loss that may arise from the simultaneous default of one or more clearing members with pre-funded resources.

Liquidity Risk

Exposure to liquidity risk as a whole for the Group is kept at very 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 set out in EMIR. On a daily basis, and under extreme but possible market conditions (stress tests), it is examined whether cash required will be sufficient, following the simultaneous default of the two (2) groups of clearing members to which ATHEXClear has the greatest liquidity claim for closing-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. If the available cash assets are not enough, immediate remedial measures are taken.

Operational risk

The Group does not seek to assume operating risk, but accepts limited exposure to risk which is based on a reasonable relations between the expected cost of non-management and the flexibility that risk tolerance allows, in order to satisfy market needs, limit the cost to participants, maximize the exploitation of business opportunities while at the same time ensure the security of the market and compliance with regulatory requirements.

In addition, it accepts that operational risk may arise as a result the failure of systems, internal procedure, human failure or external factors. In particular, it is recognized that operational risk may arise among others because of: outsourcing activity, supervisory or regulatory non-compliance, business continuity failure, risks from IT systems, information security and project implementation.

Operational risk is maintained at acceptable levels, through a combination of good corporate governance and risk management, robust systems and audit controls.

In the 1st half of 2019 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. There were no major damages or monetary claims 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 operational risk

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

In particular for ATHEXClear, in accordance with EMIR Regulation, the capital requirements for operational risk is calculated on an annual basis, using the Basic Indicator Approach (BIA); in addition, an operational risk framework for monitoring operational risk is in place.

ATHEXClear applies an operational risk management framework that allows the recognition, measurement, monitoring and management of operational risk. The most important measures for reducing operational risk are the implementation of a business continuity plan for all the critical services of the Group, action plans to deal with major risks the conclusion of insurance policies, as well as measures for ensuring compliance with new regulations. In particular, ATHEXClear follows a specific methodology for managing operational risk; according to it carries out on a regular basis RCSAs[3] in order to evaluate and categorize risks, maintains a loss data base[4], creates regular reports and works out action plans in order 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 and maintains 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

Operational 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 facilities and the work and accounting equipment of the Group.

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 supervisory framework and inform the BoD, the Audit Committee and staff.
- Conduct gap analysis between the existing and future conditions 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.

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[3] 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).

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

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 the advent of business risk depends on macroeconomic developments and is affected by external events 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 even the impairment of assets, etc.

In this context, the Group continually and systematically monitors developments and adapts to the environment.

In particular, for ATHEXClear, and in accordance with the EMIR Regulation, capital requirements for business risk 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.

5.5. 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 30 June 2019 the core activities of the Group were broken down in the following operating segments:

Group	Segment information on 30.06.2019						
	Trading	Clearing - Clearing house services	Settlement - Depository services	Data feed	IT - Other *	Exchange services	Total
Revenue	2,491	4,425	2,086	1,318	2,571	1,339	14,230
Capital income	45	80	38	24	46	24	257
Expenses	(1,630)	(2,895)	(1,365)	(862)	(1,682)	(876)	(9,310)
Depreciation	(354)	(628)	(296)	(187)	(365)	(191)	(2,021)
Taxes	(161)	(285)	(134)	(85)	(166)	(86)	(917)
Earnings after tax	**391**	**697**	**329**	**208**	**404**	**210**	**2,239**
Assets	5,791	10,288	4,850	3,064	5,977	3,114	33,084
Cash and cash equivalents	12,719	22,594	10,651	6,730	13,127	6,836	72,657
Other assets	36,737	65,260	30,764	19,438	37,917	19,748	209,864
Total assets	**55,247**	**98,142**	**46,265**	**29,232**	**57,021**	**29,698**	**315,605**
Total liabilities	**36,966**	**65,666**	**30,956**	**19,559**	**38,153**	**19,869**	**211,169**

(Amounts in euro thousands unless otherwise noted) 64

Group	Segment information on 30.06.2018						
	Trading	Clearing - Clearing house services	Settlement - Depository services	Data feed	IT - Other *	Exchange services	Total
Revenue	2,470	4,700	2,198	1,536	2,202	1,596	14,702
Capital income	56	107	50	35	50	36	334
Expenses	(1,585)	(3,016)	(1,411)	(986)	(1,413)	(1,024)	(9,435)
Depreciation	(275)	(523)	(245)	(171)	(245)	(177)	(1,636)
Taxes	(203)	(386)	(180)	(126)	(181)	(131)	(1,207)
Earnings after tax	**463**	**882**	**412**	**288**	**413**	**300**	**2,758**
Assets	5,121	9,745	4,557	3,185	4,566	3,309	30,483
Cash and cash equivalents	14,272	27,157	12,700	8,875	12,723	9,222	84,950
Other assets	30,283	57,623	26,948	18,832	26,997	19,568	180,250
Total assets	**49,676**	**94,525**	**44,205**	**30,892**	**44,286**	**32,099**	**295,683**
Total liabilities	**31,269**	**59,501**	**27,826**	**19,445**	**27,877**	**20,205**	**186,123**

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.

5.6. Overview of the capital market

The Athens Exchange General Index closed on 28.06.2019 at 868.48 points, 14.6% higher than the close at the end of the 1st half of 2018 (757.57 points). The average capitalization of the market was €51.3bn, reduced by 7.9% compared to the 1st half of 2018 (€55.7bn).

The total value of transactions in the 1st half of 2019 (€8.0bn) is 3.7% lower compared to the 1st half of 2018 (€8.3bn), while the average daily traded value was €66.7m compared to €68.1m in the 1st quarter of 2018, decreased by 2.1%. The average daily traded volume decreased by 26.0% (35.9m shares vs. 48.5m shares).

In the derivatives market, total trading activity dropped by 24.4% (1st half 2019: 5.8m contracts, 1st half 2018: 7.6m), while the average daily traded volume decreased by 23.2% (48.1 thousand contracts vs. 62.6 thousand).

5.7. Trading

Total revenue from trading in the 1st half of 2019 is analyzed in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Shares	2,186	2,123	2,186	2,123
Derivatives	294	336	294	336
ETFs	1	2	1	2
Bonds	10	9	10	9
Total	**2,491**	**2,470**	**2,491**	**2,470**

Revenue from stock trading amounted to €2.19 million vs. €2.12 million in the 1st half of 2018, increased by 3.0%. The increase is due to the increase number of orders in the 1st half of 2019 compared to the 1st half of 2018, and despite the drop in trading activity in the 1st half of 2019.

Revenue from trading in the derivatives market dropped by 12.8% compared to 2018 as both trading activity (the average daily volume dropped by 23.2% in the 1st half of 2019 compared to the 1st half of 2018) and the prices of the underlying securities (the average capitalization dropped by 7.9% in the 1st half of 2019 compared to the

(Amounts in euro thousands unless otherwise noted) 65

1st half of 2018) dropped. The average revenue per contract increased by 16.1% (2019: €0.174 per contract, 2018: €0.150 per contract).

5.8. Clearing

Revenue from clearing in the 1st half of 2019 is analyzed in the following table:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Shares	3,066	3,227	0	0
Bonds	10	9	0	0
Derivatives	704	802	0	0
ETFs	1	3	0	0
Transfers - Allocations (Special settlement instruction)	181	180	0	0
Trade notification instructions	396	415	0	0
Total	**4,358**	**4,636**	**0**	**0**

Revenue from share clearing, which consists of revenue from the organized market and the Common Platform, amounted to €3.1m, decreased by 5.0% compared to the 1st half of 2018.

Revenue from transfers – allocations amounted to €181 thousand, remaining essentially unchanged compared to the 1st half of 2018, while trade notification instructions amounted to €396 thousand, decreased by 4.6%.

Revenue from clearing in the derivatives market dropped by 12.2% compared to 2018 as both trading activity (the average daily volume dropped by 23.2% in the 1st half of 2019 compared to the 1st half of 2018) and the prices of the underlying securities (the average capitalization dropped by 7.9% in the 1st half of 2019 compared to the 1st half of 2018) dropped. The average revenue per contract increased by 16.1% (2019: €0.174 per contract, 2018: €0.150 per contract).

5.9. Settlement

Revenue from this category is analyzed in the following table:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Off-exchange transfers OTC (1)	618	630	0	0
Off-exchange transfers (2)	204	179	0	0
Rectification trades	2	3	0	0
Total	**824**	**812**	**0**	**0**

(1) Transactions through DSS operators.

(2) Transfers, public offers, donations.

5.10. 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 euro thousands unless otherwise noted) 66

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Corp. actions by listed companies (rights issues etc.) (1)	21	287	21	287
Quarterly subscriptions by listed companies (2)	956	1,018	956	1,018
Member subscriptions (3)	259	290	259	290
Bonds - Greek government securities	12	5	12	5
Subscriptions of ENA company advisors	11	11	11	11
Revenue from indices (4)	21	(107)	21	(107)
Other services to issuers (listed companies) (5)	59	92	59	92
Total	**1,339**	**1,596**	**1,339**	**1,596**

(1) Fees on corporate actions by listed companies (includes rights issues by companies and the listing of corporate bonds) amounted to €21 thousand (TITAN - €5 thousand; MOTODYNAMIKI - €5 thousand; AEGEAN - €3 thousand) vs. €287 thousand in 2018 (ELVALHALCOR - €208 thousand; TERNA ENERGY - €21 thousand; ATTICA BANK - €35 thousand; NIKAS - €6 thousand; TZIRAKIAN PIPEWORKS - €4 thousand).

(2) Revenue from listed company subscriptions amounted to €956 thousand in the 1st half of 2019 vs. €1.0 million in the 1st half of 2018, reduced by 6.1%.

(3) Revenue from member subscriptions in the cash market, which depends on members' annual trading activity, amounted to €227 thousand in the 1st half of 2019 vs. €258 thousand in the 1st half of 2018, reduced by 12.0%. Revenue from member subscriptions in the derivatives market amounted to €32 thousand in the 1st half of 2019, unchanged compared to the 1st half of 2018.

(4) Revenue from indices was negative in 2018 due to the recalculation of charges concerning previous fiscal years resulting in credit notes being issued.

(5) Revenue from other services to issuers decreased by 35.9%. This decrease is due to the new services of codifying securities and Electronic Book Building, which in the 1st half of 2019 amounted to €40 thousand; the corresponding amount for 2018 was €68 thousand. Other services includes the digital certificate services as well as "HERMES" services to listed companies (€19 thousand in the 1st half of 2019 vs. €24 thousand in 2018).

5.11. 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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Corp. actions by issuers (Rights issues - Axia Line) (1)	449	541	0	0
Bonds - Greek government securities	19	51	0	0
Investors	96	63	0	0
Operators (2)	698	731	0	0
Total	**1,262**	**1,386**	**0**	**0**

(1) Fees on corporate actions by issuers (includes rights issues by listed companies) amounted to €217 thousand in the 1st half of 2019 (EUROBANK - €180 thousand; MOTODYNAMIKI - €22 thousand; VARVARESOS - €4 thousand; CRETA FARM - €4 thousand; FOURLIS - €3 thousand) vs. €278 thousand in 2018 (ELVAL - €73 thousand; HALCOR - €64 thousand; ATTICA BANK - €64 thousand; TERNA ENERGY -

(Amounts in euro thousands unless otherwise noted) 67

€40 thousand; IASO - €27 thousand; NIKAS - €24 thousand; TZIRAKIAN PIPEWORKS - €19 thousand), i.e. reduced by 21.9%, as well as €10 thousand from the listing of corporate bonds (AEGEAN) compared to €26 thousand in 2018 (CORAL - €10 thousand; GEK-TERNA - €10 thousand; B&F - €6 thousand). Revenue from the provision of information to listed companies through electronic means was €101 thousand in the 1st half of 2019 vs. €105 thousand in the 1st half of 2018. Revenue from notifications of beneficiaries for cash distributions was €26 thousand compared to €35 thousand in 2018. This category also includes revenue from Electronic Book Building - €54 thousand in the 1st half of 2019 compared to €69 thousand in 2018.

(2) Revenue from operators includes revenues from monthly subscriptions amounting to €534 thousand vs. €545 thousand in the 1st half of 2018, and is calculated based on the value of the portfolio of the operators; revenue from authorization number usage amounted to €69 thousand vs. €70 thousand; revenue from opening investor accounts €37 thousand vs. €38 thousand in the 1st half of 2018, as well as other revenue from operators.

5.12. Clearing House Services

Revenue in this category is analyzed in the following table:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Derivatives market clearing Member subscriptions	67	64	0	0
Total	**67**	**64**	**0**	**0**

5.13. 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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Revenue from market data	1,301	1,507	1,405	1,634
Revenue from publication sales	17	29	17	29
Total	**1,318**	**1,536**	**1,422**	**1,663**

5.14. IT services

Revenue from this is analyzed in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
DSS terminal use licenses (1)	76	81	58	60
Services to Members (2)	172	146	172	146
Total	**248**	**227**	**230**	**206**

(Amounts in euro thousands unless otherwise noted) 68

(1) Revenue from DSS terminal licenses amounted to €76 thousand, reduced by 6.1% compared to the 1st half of 2018.

(2) Revenue from services to Members increased by 17.8% and includes revenue from ARM-APA - €120 thousand compared to €105 thousand in 2018; revenue from the use of FIX protocol - €30 thousand compared to €20 thousand in 2018; as well as revenue from the use of additional terminals - €21 thousand (2018: €20 thousand).

5.15. Revenue from re-invoiced expenses

Revenue from re-invoiced expenses are analyzed in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Exchange trading network (ATHEXNet)	320	320	320	320
General Meeting Services to listed companies (SODALI)	0	39	0	39
Sponsorship revenue -NY, London roadshows - WFE Conf.	115	201	115	201
Travel revenue	1	2	1	1
Revenue from electricity - Colocation	104	97	41	37
Total	**540**	**659**	**477**	**598**

ATHEXnet revenue of €320 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 5.26).

Revenue from sponsorships in the 1st half of 2019 concern the roadshow that took place in New York in June 2019.

5.16. 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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Revenue from X-NET / InBroker (see table below)	312	296	19	18
Support of other markets (CSE)	86	123	42	26
Colocation Services (1)	400	353	400	325
Market Suite	70	83	8	26
Hellenic Capital Market Commission	59	0	59	0
Use of auction platform services - DESFA	52	30	0	0
UNAVISTA LEI - EMIR TR (2)	158	211	0	0
Total	**1,137**	**1,096**	**529**	**395**

(1) The Group offers colocation services to other companies, from which it received €400 thousand in the 1st half of 2019 vs. €353 thousand in the 1st half of 2018.

(Amounts in euro thousands unless otherwise noted) 69

(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. In the 1st half of 2019 related revenue is down 25.1% compared to the 1st half of 2018.

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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Revenue from X-NET	87	58	17	18
Revenue from Inbroker	225	238	2	0
Total	**312**	**296**	**19**	**18**

For the corresponding expenses, refer to note 5.27.

5.17. Other services

The breakdown in revenue for this category is shown in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Education (1)	69	54	69	53
Rents (2)	179	148	98	98
Provision of support services to listed companies (3)	309	0	267	136
Other (4)	89	18	78	17
Total	**646**	**220**	**512**	**304**

(1) Concerns revenue from seminars and certifications.

(2) Rental income for the Group concern mainly the lease of a store in Thessaloniki; Mayer building; 4th floor and part of the 1st floor of the Athinon Ave. building.

(3) The amount of €309 thousand concerns support services by the companies of the Group to HenEx and HenExClear; there was no corresponding amount in 2018.

(4) Other revenue in this category in the 1st half of 2019 includes a grant for eIB Project: 2018-EU-IA-0044 signed Agreement, and revenue from consulting services on Digital Signatures as part of the eIDAS regulation.

5.18. Hellenic Capital Market Commission fee

The operating results of the Group in the 1st half of 2019 include the Hellenic Capital Market Commission (HCMC) fee, which for the Group amounted to €570 thousand compared to €594 thousand in the 1st half of 2018. This fee is collected and turned over to the HCMC, within two months following the end of each six-month period.

(Amounts in euro thousands unless otherwise noted) 70

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 the 1st half of 2019 amounted to €210 thousand compared to €216 thousand in the 1st half of 2018.

5.19. 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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Salaried staff	220	219	114	109
Total Personnel	**220**	**219**	**114**	**109**

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Personnel remuneration	3,415	3,402	1,946	1,897
Social security contributions	762	751	432	421
Termination benefits	101	297	0	0
Net change in the compensation provision (actuarial valuation)	33	28	17	16
Other benefits (insurance premiums etc.)	444	407	263	219
Total	**4,755**	**4,885**	**2,658**	**2,553**

Obligations to employees

The changes in the mandatory compensation payments in the 1st half of 2019 and the 1st half of 2018 are shown in detail in the following table:

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	Group	
	30.06.2019	30.06.2018
Amounts recognized in the Statement of Financial Position		
Present values liabilities	1,826,444	1,868,231
Net obligation recognized in the Statement of Financial Position	**1,826,444**	**1,868,231**
Amounts recognized in the Profit & Loss Statement		
Cost of current employment	17,060	13,404
Net Interest on the liability/asset	15,873	14,995
Regular expense in the Profit & Loss Statement	**32,932**	**28,399**
Total expense recognized in the Profit & Loss Statement	**32,932**	**28,399**
Change in the present value of the liability		
Present value of the obligation at the beginning of the period	1,793,512	1,839,832
Cost of current employment	17,060	13,404
Interest expense	15,873	14,995
Present value of the liability at the end of the period (note 5.39)	**1,826,444**	**1,868,231**

(Amounts in euro thousands unless otherwise noted) 71

Adjustments		
Adjustments to liabilities from changes in assumptions	0	0
Experience adjustments in liabilities	0	0
Total recognized in equity	**0**	**0**
Changes in net liability recognized in the balance sheet		
Net liability at the start of the year	1,793,512	1,839,832
Total expense recognized in the Profit & Loss Statement	32,932	28,399
Net Liability at the end of the year(note 5.39)	**1,826,444**	**1,868,231**

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	**Company**	
	30.06.2019	**30.06.2018**
Amounts recognized in the Balance Sheet		
Present values liabilities	1,135,109	1,158,931
Net obligation recognized in the Statement of Financial Position	**1,135,109**	**1,158,931**
Amounts recognized in the Profit & Loss Statement		
Cost of current employment	7,473	6,443
Net Interest on the liability/asset	9,892	9,317
Regular expense in the Profit & Loss Statement	**17,365**	**15,760**
Cost of personnel reduction / mutual agreements/retirement	0	0
Other expense / (revenue)	0	0
Total expense recognized in the Profit & Loss Statement	**17,365**	**15,760**
Change in the present value of the liability		
Present value of the obligation at the beginning of the period	1,117,744	1,143,171
Cost of current employment	7,473	6,443
Interest expense	9,892	9,317
Actuarial loss/(profit) - experience of the period	0	0
Present value of the liability at the end of the period (note 5.39)	**1,135,109**	**1,158,931**
Adjustments		
Adjustments to liabilities from changes in assumptions	0	0
Experience adjustments in liabilities	0	0
Total recognized in equity	**0**	**0**
Changes in net liability recognized in the balance sheet		
Net liability at the start of the year	1,117,744	1,143,171
Employer contributions	0	0
Total expense recognized in the Profit & Loss Statement	17,365	7,880
Total amount recognized in equity	0	0
Net Liability at the end of the year (note 5.39)	**1,135,109**	**1,151,051**

The actuarial assumptions used in the actuarial study for the Group in accordance with IAS 19 are as follows:

Actuarial assumptions	**Valuation dates**	
	30.06.2019	**30.06.2018**
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

(Amounts in euro thousands unless otherwise noted) 72

5.20. 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	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
BoD member remuneration -committees	19	16	15	13
Attorney remuneration and expenses	36	36	36	36
Fees to auditors (1)	56	53	23	21
Fees to consultants (2)	3	119	(18)	58
Fees to FTSE (ATHEX)	53	51	53	51
Other Fees	18	18	16	16
Fees to training consultants	24	5	7	5
Total	**209**	**298**	**132**	**200**

(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.

5.21. Utilities

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Fixed - mobile telephony - internet	90	55	40	13
Leased lines - ATHEXNet	45	48	11	18
PPC (Electricity)	230	216	8	5
EYDAP (water)	2	2	0	0
Total	**367**	**321**	**59**	**36**

Telephony expenses increased because part of the charge for the 1st half last year was booked in the 2nd half of last year.

5.22. 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.

In the 1st half of 2019, maintenance expenses for the Group amounted to €736 thousand compared to €582 thousand in the 1st half of 2018, increased by 26.5%, due to the acquisition of asset equipment of significant value during the previous period. For the Company, the corresponding amounts were €484 thousand in the 1st half of 2019 compared to €426 thousand in 2018, increased by 13.6%.

(Amounts in euro thousands unless otherwise noted) 73

5.23. Other taxes

Non-deductible Value Added Tax, and other taxes (Property Tax) that burden the cost of services amounted to €540 thousand compared to €443 thousand in the 1st half of 2018, mainly as a result of VAT for the maintenance of asset equipment (network & storage equipment) of significant value that was recently acquired. For the Company, other taxes amounted to €344 thousand vs. €282 thousand in the 1st half of 2018.

5.24. Building / equipment management

This category includes expenses such as: security and cleaning services, building and equipment maintenance and repairs.

	GROUP		COMPANY	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Cleaning and building security services	201	175	55	49
Building repair and maintenance - other equipment	14	24	8	2
Fuel and other generator materials	13	8	0	0
Communal expenses	0	7	0	0
Total	**228**	**214**	**63**	**51**

Cleaning and security services increased due to the 11% increase in the minimum wage of the crews, as well as due to the increase in the number of cases when extra security was required.

5.25. Other operating expenses

Other operating expenses in the 1st half of 2019 increased by 10% compared to the corresponding period last year, and are analyzed in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Bank of Greece (BoG) - cash settlement	25	24	0	0
Stationery	3	7	3	6
Consumables	19	25	18	25
Travel expenses	76	45	65	29
Postal expenses	2	8	1	7
Transportation expenses	25	26	18	19
Publication expenses	4	0	0	0
Storage fees	6	6	4	4
Operation support services	0	0	59	59
Automobile leases	0	12	0	12
DR hosting expenses	48	30	27	89
Other	71	42	39	50
Electronic equipment insurance premiums	10	8	10	8
Means of transport insurance premiums	0	2	0	2
Building fire insurance premiums	19	13	3	2

(Amounts in euro thousands unless otherwise noted) 74

BoD member civil liability ins. Premiums (D&O, DFL & PI)	201	169	201	169
Subscriptions to professional organizations & contributions	230	228	197	195
Hellenic Capital Market Commission subscription	13	14	13	14
Promotion, reception and hosting expenses	105	105	79	98
Event expenses	40	61	35	49
Total	**897**	**825**	**772**	**837**

5.26. Re-invoiced expenses

Expenses in this category for the 1st half of 2019 are analyzed in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Leased Lines (ATHEXNet)	175	245	165	241
Sodali expenses (General Meetings)	19	0	19	0
VAT on re-invoiced expenses	59	70	45	60
Promotion, reception and hosting expenses (NY-London roadshows)	110	149	108	147
Electricity consumption - Colocation	104	89	0	0
Other	12	11	13	11
Total	**479**	**564**	**350**	**459**

The corresponding revenue is shown in note 5.15.

5.27. Expenses for ancillary activities

Expenses on this category are shown in the table below:

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Expenses from new activities (3)	116	3	116	3
X-NET Expenses (1)	119	262	14	26
Expenses on IT Services to third parties (2)	159	252	17	51
VAT on ancillary services expenses	71	125	10	20
Total	**465**	**642**	**157**	**100**

1. InBroker Plus expenses for X-NET (the corresponding revenue is described in note 5.16) 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:

(Amounts in euro thousands unless otherwise noted) 75

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Expenses concerning foreign securities	40	37	13	21
Inbroker Plus data feed expenses	79	225	1	5
Total	**119**	**262**	**14**	**26**

2. Expenses on IT Services amounted to €159 thousand compared to €252 thousand in the 1st half of 2018 and mainly include the expenses of the LEI – EMIR TR service – €141 thousand (compared to €200 thousand in 2018); ORACLE expenses - €12 thousand (compared to €41 thousand in 2108); and HELLENIC CAPITAL MARKET COMMISSION expenses - €3 thousand (compared to €10 thousand in 2018) (the corresponding UNAVISTA LEI revenue is shown in note 5.16).
3. Includes invoices for legal and consulting services for the participation in Boursa Kuwait - €76 thousand, as well as a study for shipping derivatives products - €30 thousand.

5.28. 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, 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 book value of the assets of the Group per building on 30.06.2019 is summarily presented in the following table:

Analysis of the Assets of the Group per category in the Statement of Financial Position of 30.06.2019			
	Owner occupied		
	Athinon Ave. building	Katouni building (Thessaloniki)	Total
Plots of land	3,200	1,300	4,500
Construction	16,396	428	16,824
Means of transportation	4	0	4
Electronic systems	2,169	0	2,169
Communication & other equipment	162	0	162
Intangible assets	7,202	0	7,202
Total	**29,133**	**1,728**	**30,861**

(*) The amount includes €14 thousand that concerns investments in third party properties (DR site).

The tangible and intangible assets of the Group on 30.06.2019 and 31.12.2018 are analyzed as follows:

(Amounts in euro thousands unless otherwise noted) 76

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**
Reductions in 2018	0	0	0	0	0	0	**0**
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	14,841	0	7	529	4,372	**24,249**
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	0	0	0	0	**2,599**
Book value after the revaluation on 31.12.2018	**4,500**	**17,489**	**0**	**7**	**1,555**	**6,549**	**30,100**

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 31.12.2018	**4,500**	**29,527**	**127**	**168**	**8,948**	**12,679**	**55,949**
Additions in 2019	0	0	0	0	1,071	1,600	**2,671**
Reductions in 2019	0	0	0	(3)	0	0	**(3)**
Acquisition and valuation on 30.06.2019	**4,500**	**29,527**	**127**	**165**	**10,019**	**14,279**	**58,617**
Accumulated depreciation on 31.12.2018	**0**	**12,038**	**127**	**161**	**7,393**	**6,130**	**25,849**
Depreciation in 2019	0	665	0	1	295	947	**1,908**
Accumulated depreciation reduction in 2019	0	0	0	(1)	0	0	**(1)**
Accumulated depreciation on 30.06.2019	**0**	**12,703**	**127**	**161**	**7,688**	**7,077**	**27,756**
Book value							
on 31.12.2018	**4,500**	**17,489**	**0**	**7**	**1,555**	**6,549**	**30,100**
on 30.06.2019	**4,500**	**16,824**	**0**	**4**	**2,331**	**7,202**	**30,861**

The tangible and intangible assets of the Company on 30.06.2019 and 31.12.2018 are analyzed as follows:

(Amounts in euro thousands unless otherwise noted) 77

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**	**414**	**2,899**	**4,859**
on 31.12.2018	**0**	**14**	**0**	**4**	**913**	**4,174**	**5,105**

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 31.12.2018	**0**	**15**	**103**	**159**	**6,415**	**8,892**	**15,584**
Additions in 2019	0	0	0	0	574	719	**1,293**
Reductions in 2019	0	0	0	(3)	0	0	**(3)**
Acquisition and valuation on 30.06.2019	**0**	**15**	**103**	**156**	**6,989**	**9,611**	**16,874**
Accumulated depreciation on 31.12.2018	**0**	**1**	**103**	**155**	**5,502**	**4,718**	**10,479**
Depreciation in 2019	0	0	0	0	181	651	**832**
Accumulated depreciation reduction in 2019	0	0	0	(1)	0	0	**(1)**
Accumulated depreciation on 30.06.2019	**0**	**1**	**103**	**154**	**5,683**	**5,369**	**11,310**
Book value							
on 31.12.2018	**0**	**14**	**0**	**4**	**913**	**4,174**	**5,105**
on 30.06.2019	**0**	**14**	**0**	**2**	**1,306**	**4,242**	**5,564**

Intangible assets include the amounts of €319 thousand for the Group and €51 thousand for the Company and concern the capitalization of expenses (CAPEX creation) for systems development by the Group in the 1st half of 2019. Starting on 1.1.2018 the depreciation rates for expenses capitalized in 2017 were changed. Henceforth capitalized expenses will be depreciated in 5 years. Expenses made before 1.1.2017 will be depreciated in 10 years as before.

Besides the effect of IFRS 16 (note 5.29), depreciation increased in the 1st half of 2019 due to the fact that capex began being depreciated in 5 years (compared to 10 years previously), as well as due to the purchase of equipment of significant value (ATHEX exchange trading network, storage etc).

The management of the Group estimates that there are no impairment indications on the owner occupied buildings of the Group.

On 30.06.2019 there were no encumbrances on the assets of the companies of the Group.

(Amounts in euro thousands unless otherwise noted) 78

5.29. IFRS 16 Standard - Leases

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.

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 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.

Accounting treatment

When adopting IFRS 16, the Company applied a single accounting model for all leases.

The Company recognized right-of-use assets and liabilities for those leases that were previously classified as operating, besides leases of low value.

Lease liabilities were recognized as the present value of the remaining payments, discounted by the incremental borrowing cost on the date of initial application. The Company applied the following practices:

- It used a single discount interest rate of 4% for leases, which was determined based on the interest rate of the 10 year Greek Government Bond increased by the credit risk of the Group.
- It assessed, based on previous experience, the duration of those leases whose contract terms include an extension or termination clause.
- It did not assess leases valued at less than €5,000.

The new accounting policies of the Company on the adoption of IFRS 16 that apply from the date of initial application are provided below.

Asset right-of-use

The Company recognize right-of-use assets at the start of the lease (the date when the asset is available for use). The asset rights-of-use are measured at cost, reduced by accumulated depreciation and value impairment adjusted during the measurement of the corresponding lease obligations.

The right-of-use assets are subject to an impairment check.

Lease obligations

At the start of the lease, the Company recognizes asset liabilities equal to the present value of the lease payments for the duration of the lease contract.

In order to calculate the present value of the payments, the Company uses the incremental borrowing cost on the start date of the lease, if the actual interest rate is not specified directly in the lease contract. The interest rate was set at 4% (see above). Following the start of the lease, lease obligations are increased by interest expenses and reduced by lease payments that take place. Furthermore, the book value of the lease obligations is measured if the is a contract modification, or any change in the duration of the contract, the fixed lease payments, or the market assessment of the asset.

In the 1st half of 2019, €0.5 thousand was booked as a lease financial costs and €10 thousand as depreciation for the Group; for the Company €30.5 thousand was booked as lease financial costs and €67 thousand as depreciation of right-of-use assets.

Asset right of use - Group			
	Real Estate	Means of transport	Total
Cost			
Balance 1.1.2019		**48**	**48**
Additions for the period	0	0	0
Balance 30.6.2019	**0**	**48**	**48**
Accumulated depreciation			
Balance 1.1.2019	**0**	**0**	**0**
Depreciation for the period		10	10
Balance 30.6.2019	**0**	**10**	**10**
Book value 30.6.2019	**0**	**38**	**38**

Asset right of use - Company			
	Real Estate	Means of transport	Total
Cost			
Balance 1.1.2019	**1,505**	**48**	**1,553**
Additions for the period	0	0	0
Balance 30.6.2019	**1,505**	**48**	**1,553**
Accumulated depreciation			
Balance 1.1.2019	**0**	**0**	**0**
Depreciation for the period	58	9	67
Balance 30.6.2019	**58**	**9**	**67**
Book value 30.6.2019	**1,447**	**39**	**1,486**

Lease obligations - Group			
	Real Estate	Means of transport	Total
Long term lease obligations			
Balance 1.1.2019	**0**	**29**	**29**
Payments for the period	0	0	0
Balance 30.6.2019	**0**	**29**	**29**
Short term lease obligations			
Balance 1.1.2019	**0**	**18**	**18**
Interest for the period	0	1	1
Payments for the period	0	(10)	(10)
Balance 30.6.2019	**0**	**9**	**9**

Lease obligations - Company			
	Real Estate	Means of transport	Total
Long term lease obligations			
Balance 1.1.2019	**1,417**	**29**	**1,446**
Payments for the period	0	0	0
Balance 30.6.2019	**1,417**	**29**	**1,446**
Short term lease obligations			
Balance 1.1.2019	**89**	**18**	**107**
Interest for the period	30	1	31
Payments for the period	(74)	(10)	(84)
Balance 30.6.2019	**45**	**9**	**54**

(Amounts in euro thousands unless otherwise noted) 80

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 not a previous valuation loss.

The book value of the investments in real estate for the Group and the Company on 30.06.2019 and 31.12.2018 is shown in the following table:

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 on 31.12.2018	**0**	**3,523**	**88**	**3,611**
Book value				
on 31.12.2017	**1,000**	**2,200**	**0**	**2,791**
on 31.12.2018	**1,000**	**1,587**	**0**	**2,587**
Impairment of property value	(300)	0	0	(300)
Book value after revaluation on 31.12.2018	**700**	**1,587**	**0**	**2,287**

Group - Company	TANGIBLE ASSETS			
	Plots of Land	Buildings and Construction	Furniture and fixtures	Total
Acquisition and valuation on 31.12.2018	**700**	**5,110**	**88**	**5,898**
Additions in 2019	0	0	0	0
Reductions in 2019	0	0	0	0
Acquisition and valuation on 30.06.2019	**700**	**5,110**	**88**	**5,898**
Accumulated depreciation on 31.12.2018	**0**	**3,523**	**88**	**3,611**
Depreciation in 2019	0	102	0	102
Accumulated depreciation reduction in 2019	0	0	0	0
Accumulated depreciation on 30.06.2019	**0**	**3,625**	**88**	**3,713**
Book value				
on 31.12.2018	**700**	**1,587**	**0**	**2,287**
on 30.06.2019	**700**	**1,485**	**0**	**2,185**

(Amounts in euro thousands unless otherwise noted) 81

5.31. Investments in subsidiaries and other long term claims

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Participation in ANNA	1	1	1	1
Participation in subsidiaries	0	0	57,880	57,880
Participation in affiliates (1)	1,071	1,050	1,071	1,050
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	**1,139**	**1,118**	**59,189**	**59,168**

5. The participation of the Company in HenEx on 30.06.2019 was 21%, i.e. €1,050,000 (note 5.45), in addition to €21 thousand from the participation in the earnings for fiscal year 2018.

The breakdown of the participations of the parent Company in the subsidiaries of the Group on 30.06.2019 is shown below:

	% of direct participation	Number of shares / total number of shares	Cost 30.06.2019	Cost 31.12.2018
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**

The Company collected dividend of €4 per share from the ATHEXCSD subsidiary for fiscal year 2018. The dividend, amounting to €3,210,400 was collected in June 2019.

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:

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Clients	7,608	6,767	3,703	3,387
Clients (intra-Group)	0	0	1	16
Less: provisions for bad debts	(3,649)	(3,649)	(1,585)	(1,585)
Net commercial receivables	**3,959**	**3,118**	**2,119**	**1,818**
Other receivables				
Tax withheld on dividends for offsetting (1)	4,721	4,721	4,421	4,421
Tax (0.20%) (2)	2,577	1,910	0	0
HCMC fee claim (3)	21	453	21	453

(Amounts in euro thousands unless otherwise noted) 82

Taxes withheld on deposits	172	136	92	74
Accrued revenue - prepaid non-accrued expenses (4)	1,491	740	933	622
Other withheld taxes	52	49	32	31
Prepayment of tax audit differences (5)	983	983	983	983
Other debtors (6)	96	89	442	447
Total other receivables	**10,113**	**9,081**	**6,924**	**7,031**
Income tax claim (7)	**0**	**374**	**17**	**295**

(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) The amount of €432 thousand was collected on 16.05.2019 on the claim to the HCMC fee.

(4) Concerns interest on cash assets - €172 thousand; a provision for market data services - €468 thousand for the Group and €423 thousand for the Company (the corresponding amounts for 2018: €472 thousand for the Group and €517 thousand for the Company); revenue provision from the Hellenic Capital Market Commission - €59 thousand; accrued expenses UNISYSTEMS, ORACLE etc.

(5) 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 5.42).

(6) Other debtors include, among others: claims on HCGC - €35 thousand, as well as a €49 thousand in claims for the lease on the Mayer building. For the Company there is a €338 thousand claim from a subsidiary company.

(7) On 03.06.2019 the Group has an income tax liability, while the claim for the Company is €17 thousand (note 5.42 for more detailed analysis).

The provisions for bad debts are analyzed in the table below:

Provisions for bad debts	**Group**	**Company**
Balance on 31.12.2017	**3,571**	**1,894**
Additional provisions in 2018	78	-309
Balance on 31.12.2018	**3,649**	**1,585**
Additional provisions in 2019	0	0
Balance on 30.06.2019	**3,649**	**1,585**

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.

(Amounts in euro thousands unless otherwise noted) 83

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 9, is reported in Other Comprehensive Income (OCI), thus increasing the relevant reserve that had been formed.

On 30.06.2019 the share price closed at €3.064 and as a result the valuation of the Bank of Piraeus shares was €2,047,563.96, a gain of €1,486,221.80 compared to the valuation on 31.12.2018 which, in accordance with IFRS 9, is reported in Other Comprehensive Income (OCI), thus reducing the relevant reserve that had been formed (see note 5.37).

The change in the value of the Bank of Piraeus shares, as well as the 0.779% participation in Boursa Kuwait are analyzed below:

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Balance - start of the fiscal year	562	2,051	562	2,051
Profit / (Loss) from the valuation of the participation recognized in the Statement of Comprehensive Income	1,486	(1,490)	1,486	(1,490)
	2,048	**561**	**2,048**	**561**
Participation in Boursa Kuwait	1,032	0	1,032	0
Balance - end of the period	**3,080**	**561**	**3,080**	**561**

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 Group had income of €236 thousand in the 1st half of 2019 (2018: €334 thousand); for the Company, the corresponding income was €117 thousand (2018: €200 thousand).

On 30.06.2019, a significant portion (40.8%) 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 €64 thousand for the Group, and €35 thousand for the company, and are almost unchanged compared to the 1st half of 2018.

In accordance with IFRS 16, bank expenses include financial expenses for leases which amounted to €0.5 thousand for the Group and €30.5 thousand for the Company in the 1st half of 2019.

The breakdown of the cash at hand and at bank of the Group is as follows:

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Deposits at the Bank of Greece	29,483	29,605	0	0
Sight deposits in commercial banks	2,250	1,942	1,317	1,039
Time deposits < 3 months	40,915	43,052	20,879	21,704
Cash at hand	9	9	3	3
Total	**72,657**	**74,608**	**22,199**	**22,746**

(Amounts in euro thousands unless otherwise noted) 84

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 €190,485 thousand on 30.06.2019 and €153,358 thousand on 31.12.2018 respectively shown below and in the Statement of Financial Position on 30.06.2019 and 31.12.2018 respectively, concern exclusively Member collaterals in the cash and derivatives markets as well as XNET respectively.

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Clearing Fund collaterals – Cash Market	18,078	12,151	0	0
Additional Clearing Fund collaterals – Cash Market	110,637	99,838	0	0
Clearing Fund collaterals – Derivatives Market	9,345	6,488	0	0
Additional Clearing Fund collaterals – Derivatives Market	50,144	33,307	0	0
Members Guarantees in cash for X-NET (1)	2,281	1,574	1,550	1,398
Third party balances	**190,485**	**153,358**	**1,550**	**1,398**

(1) Margins received by the Company for the XNET market on 30.06.2019 amounted to €2.3m and were kept in commercial bank accounts, as are dormant client balances of the Clearing Fund amounting to €35 thousand. In addition, the amount of €696 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:

	Group		Company	
Deferred taxes	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Deferred tax claims	1,088	1,467	1,039	1,419
Deferred tax liabilities	(1,369)	(1,483)	0	0
Total	**(281)**	**(16)**	**1,039**	**1,419**

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 1.1.2018	**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	0
Balance 31.12.2018	**45**	**107**	**448**	**1,251**	**0**	**1,851**
(Debit) / credit to the results	(3)	(12)	8	0	0	(7)
(Debit) / credit to other comprehensive income	0	0	0		0	0
Balance 30.06.2019	**42**	**95**	**456**	**1,251**	**0**	**1,844**

(Amounts in euro thousands unless otherwise noted) 85

Deferred tax liabilities	Property plant & equipment	Share valuation provision	Total
Balance 1.1.2018	**(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)**
Debit / (credit) to the results	113	(371)	(258)
Debit / (credit) to other comprehensive income	0	0	0
Balance 30.06.2019	**(2,052)**	**(74)**	**(2,126)**

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 1.1.2018	**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	0
Balance 31.12.2018	**14**	**107**	**279**	**721**	**0**	**1,121**
(Debit) / credit to the results	0	(13)	5	0	0	(8)
(Debit) / credit to other comprehensive income	0	0		0	0	0
Balance 30.06.2019	**14**	**94**	**284**	**721**	**0**	**1,113**

Deferred tax liabilities	Share valuation loss provision	Total
Balance 1.1.2018	**(76)**	**(76)**
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	373	373
Balance 31.12.2018	**297**	**297**
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	(371)	(371)
Balance 30.06.2019	**(74)**	**(74)**

Other data concerns the tax corresponding to the valuation and sale of participations and securities.

In accordance with Amendment 1811/4 – 27.11.2018 concerning article 58 of Law 4172/2013, the corporate income tax rate will be gradually reduced by one percentage point every year until 2022.

Thus for 2019 it will be 28%.

For 2020 it will be 27%.

For 2021 it will be 26%.

For 2022 it will be 25%.

Following the vote on the new government's policy plan, a new law is expected to be voted that will set the corporate income tax rate at 24%, from 28% currently, for fiscal year 2019. It should be noted that the Company used the 28% rate in calculating income tax on the earnings of the 1st half.

(Amounts in euro thousands unless otherwise noted) 86

5.37. Equity and reserves

a) Share Capital

The 1st Annual General Meeting of shareholders of 30.05.2019 approved a share capital return of €0.11 to shareholders, with a corresponding reduction in the share par value. Thus, the share capital of the Company amounts to €31,001,840.00, divided into 60,348,000 shares with a par value of €0.58 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)	
Total	**65,368,563**	**0.84**	**54,909,592.92**	
Reduction of Share Capital through cancellation of Own Shares	(4,769,563)	0.84	(4,006,432.92)	
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)	
Total	**60,599,000**	**0.69**	**41,813,310.00**	
Reduction of Share Capital through cancellation of Own Shares	(251,000)	0.69	(173,190.00)	
Total 31.12.2018	**60,348,000**	**0.69**	**41,640,120.00**	**157,084.15**
Share capital reduction		(0.11)	(6,638,280.00)	
Total 30.06.2019	**60,348,000**	**0.58**	**35,001,840.00**	**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	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Regular Reserve (1)	29,609	29,506	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)	(12,669)	(12,669)	(12,669)
Real estate revaluation reserve	15,819	15,819	14,383	14,383
Real estate revaluation reserve (Law 2065/1992)	1,949	1,949	0	0
Other (4)	5,983	5,983	5,983	5,983
Special securities valuation reserve (5)	(1,393)	(2,508)	(1,393)	(2,508)
Reserve from stock option plan to employees	1,385	1,385	1,336	1,336
Total	**51,419**	**50,201**	**46,036**	**44,922**

(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.

(Amounts in euro thousands unless otherwise noted) 87

(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 (25% 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. On 30.06.2019 the shares posted a valuation gain of €1,486,221.80 which was recognized in the special securities valuation reserve, from which deferred tax of €371,555.45 (25% x €1,486,221.80) was subtracted. Thus the debit balance of the special reserve on 30.06.2019 was €1,393,201.74.

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.

There is no share buyback program currently in effect.

d) Retained Earnings

The retained earnings of €18,740 thousand on 31.12.2018 were reduced by €857 thousand (which is the sum of the €2,239 thousand in net earnings for the 1st half of 2019 minus €3,121 thousand in retained earnings used for dividend distribution) and amounted to €17,858 thousand at the end of the 1st half of 2019.

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 30.06.2019 are broken down in the table below:

Capital requirements Risk type	Capital requirements 30.06.2019
Credit risk (total)	205
Derivatives market	0
Cash market	0
Investment of own assets	205
Market risk	0
Exchange rate risk	0
Operating risk	115
Winding down risk	3,177
Business risk	1,588
Total Capital requirements	**5,085**
Notification Threshold (110% of capital requirements)	**5,594**
Additional special resources (25% of capital requirements of 31.12.2018)	**1,253**

ATHEXClear equity amounting to €30.8m, as reported in the statement of financial position of ATHEXClear on 30.06.2019, 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: €826 thousand to the cash market and €602 thousand to the derivatives market on 30.06.2019.

(Amounts in euro thousands unless otherwise noted) 89

5.38. Grants and other long term liabilities

The Group shows an amount of €50 thousand in the first half of 2019 in withholding on employee compensation (Law 103/75) and concerns the Company.

5.39. Provisions

		Group		Company	
		30.06.2019	31.12.2018	30.06.2019	31.12.2018
Staff retirement obligation (note 5.19)		1,826	1,794	1,135	1,118
Total		**1,826**	**1,794**	**1,135**	**1,118**
Other provisions		1,360	1,360	1,300	1,300
Total		**1,360**	**1,360**	**1,300**	**1,300**

The change in provisions on 30.06.2019 and 31.12.2018 for the Group and Company is shown below:

Group	Personnel termination provision	Provisions for other risk
Balance on 31.12.2017	**1,840**	**1,360**
Additional provision in the period	0	0
Provision used	(46)	0
Balance on 31.12.2018	**1,794**	**1,360**
Additional provision in the period	32	0
Provision used	0	0
Balance on 30.06.2019	**1,826**	**1,360**

Company	Personnel termination provision	Provisions for other risk
Balance on 31.12.2017	**1,143**	**1,300**
Additional provision in the period	0	0
Provision used	(25)	0
Balance on 31.12.2018	**1,118**	**1,300**
Additional provision in the period	17	0
Provision used	0	0
Balance on 30.06.2019	**1,135**	**1,300**

By taking provisions, the Group and the Company are trying to protect themselves against potential future risks.

5.40. 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:

(Amounts in euro thousands unless otherwise noted) 90

	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Suppliers	2,595	2,425	1,257	1,510
Suppliers (intra-Group)	0	0	3	3
Checks payable	71	77	0	5
Hellenic Capital Market Commission Fee (1)	570	425	210	153
Tax on stock sales 0.20% (2)	3,029	2,124	0	0
Dividends payable	37	30	37	30
Accrued third party services (3)	528	507	214	260
Employee remuneration payable	325	41	176	22
Share capital return to shareholders (4)	6,736	101	6,736	101
Tax on salaried services	173	262	103	146
Tax on external associates	1	1	0	0
VAT-Other taxes	471	273	334	185
Various creditors	38	39	(9)	(7)
Total	**14,574**	**6,305**	**9,061**	**2,408**

(1) The Hellenic Capital Market Commission fee of €570 thousand (compared to €425 thousand in 2018) 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 1st half of 2019.

(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 €3.0m corresponds to the tax (0.20%) on stock sales that has been collected for June 2019 and was turned over to the Greek State in July 2019.

(3) Accrued third party services include €150 thousand – provision for building and equipment maintenance; €155 thousand – 2nd quarter pension plan insurance premiums; €120 thousand – ORACLE maintenance; the balance concerns other expense provisions (FTSE, data vendors, attorney fees etc.)

(4) Includes the obligation to pay the share capital return of €0.11 per share that was approved by the General Meeting of 30.05.2019 amounting to €6.6m, besides the unpaid balances of previous capital returns to shareholders.

5.41. 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 the 1st half of 2019 the amount was €819 thousand compared to €984 thousand on 31.12.2018. For the Company, the corresponding amounts were €725 thousand in the 1st half of 2019 compared to €780 thousand on 31.12.2018.

5.42. 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.

(Amounts in euro thousands unless otherwise noted) 91

Tax liabilities	Group		Company	
	30.06.2019	31.12.2018	30.06.2019	31.12.2018
Liabilities 31.12	(374)	(168)	(295)	(464)
Income tax expense	1,022	1,572	278	543
Taxes paid	0	(1,778)	0	(374)
Liabilities / (claims) (note 5.32)	**648**	**(374)**	**(17)**	**(295)**

The amount of €648 thousand shown as Group income tax claim on 30.06.2019 breaks down as follows: claim on ATHEXClear - €67 thousand; ATHEX (parent company) - €17 thousand; and a €598 thousand liability by ATHEXCSD.

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Income Tax	1,022	1,195	278	388
Deferred Tax	(106)	12	9	57
Income tax expense	**917**	**1,207**	**287**	**445**

In accordance with article 23 of Law 4579/2018, the corporate income tax rate for fiscal year 2019 is reduced to 28% from 29% in 2018.

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	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Profits before taxes	3,156	3,965	4,085	2,263
Income tax rate	28%	29%	28%	29%
Expected income tax expense	884	1,150	1,144	656
Tax effect of non-taxable income	0	0	(857)	(261)
Tax effect of non-deductible expenses	33	57	0	50
Income tax expense	**917**	**1,207**	**287**	**445**

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.

(Amounts in euro thousands unless otherwise noted) 92

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 in July 2019.

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 case has been referred to the Court of First Instance and a court date on 24.9.2019 has been set.

5.43. Related party disclosures

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

	Group		Company	
	30.06.2019	30.06.2018	30.06.2019	30.06.2018
Remuneration of executives and members of the BoD	648	675	437	477

(Amounts in euro thousands unless otherwise noted) 93

The intra-Group balances on 30.06.2019 and 31.12.2018, as well as the intra-Group transactions of the companies of the Group on 30.06.2019 and 30.06.2018 are shown below:

INTRA-GROUP BALANCES (in €) 30-06-2019				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	383,553	868
	Liabilities	0	3,461	0
ATHEXCSD	Claims	3,461	0	35,980
	Liabilities	383,553	0	2,204
ATHEXCLEAR	Claims	0	2,204	0
	Liabilities	868	35,980	0

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 REVENUES-EXPENSES (in €) 30-06-2019				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	186,096	55,611
	Expenses	0	154,451	0
	Dividend Income	0	3,210,400	0
ATHEXCSD	Revenue	154,451	0	2,800,696
	Expenses	186,096	0	17,882
ATHEXCLEAR	Revenue	0	17,882	0
	Expenses	55,611	2,800,696	0

INTRA-GROUP REVENUES-EXPENSES (in €) 30-06-2018				
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	207,873	54,911
	Expenses	0	155,669	0
	Dividend Income	0	802,600	0
ATHEXCSD	Revenue	155,669	0	2,975,181
	Expenses	207,873	0	8,124
ATHEXCLEAR	Revenue	0	8,124	0
	Expenses	54,911	2,975,181	0

(Amounts in euro thousands unless otherwise noted) 94

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.

For the affiliated company Hellenic Energy Exchange, the table of claims and revenue for the 1st half of 2019 follows below; there were no amounts in the corresponding period in 2018.

Claims (in €)	**30.06.2019**
ATHEX	138,400
ATHEXCSD	151,997
ATHEXClear	18,600

Revenue (in €)	**30.06.2019**
ATHEX	111,092
ATHEXCSD	145,056
ATHEXClear	15,000

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 €3,017,400, as dividend from the earnings of fiscal year 2018, as well as the return of capital to shareholders of €0.11 per share, i.e. a payout of €6,638,280. The proposals of the BoD for the distribution of dividend and the return of capital were approved by shareholders at the 18th Annual General Meeting on 30.5.2019.

The net after tax earnings of the Group for the 1st half of 2019 were €2,239 thousand or €0.037 per share, while after including other comprehensive income, earnings were €3,354 thousand or €0.056 per share. The number of shares outstanding of the Company is 60,348,000.

(Amounts in euro thousands unless otherwise noted) 95

5.45. Hellenic Energy Exchange (HEnEx)

The “Hellenic Energy Exchange” (HenEx) has begun 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.

In 2020 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).

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 €1,050,000, obtaining 21% of the share capital.

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%**

HEnEx published the Annual Financial Report of 31.12.2018, reporting net earnings of €101,504.39 (note 5.47). The Annual General Meeting of HEnEx shareholders decided not to distribute a dividend for fiscal year 2018.

(Amounts in euro thousands unless otherwise noted) 96

5.46. Participation in the 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**

5.47. Revenue from participations

Revenue from participations refers to the 21% participation of the Company in the Hellenic Energy Exchange (HenEx) (note 5.45 and 5.31). In particular, HenEx reported net after tax earnings of €101,504 for the fiscal year that ended on 31.12.2018.

The internal value of the participation of the Company in HenEx increased in proportion to its participation in the share capital of HenEx (€101,504 x 21% = €21,316).

(Amounts in euro thousands unless otherwise noted) 97

5.48. 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.

The composition of the Board of Directors that was elected by the Annual General Meeting of the Company on 30.05.2019, with a four year term of office, is the following:

HELLENIC EXCHANGES - ATHENS STOCK EXHANGE S.A. HOLDING	
Name	**Position**
George Handjinicolaou	Chairman, non-executive member
Alexios Pilavios	Vice Chairman, non-executive member
Socrates Lazaridis	Chief Executive Officer, executive member
Alexandros Antonopoulos	Independent non-executive member
Konstantinos Vassiliou	Non-executive member
Giorgos Doukidis	Independent non-executive member
Ioannis Emiris	Non-executive member
Polyxeni Kazoli	Independent non-executive member
Sofia Kounenaki – Efraimoglou	Independent non-executive member
Ioannis Kyriakopoulos	Non-executive member
Adamantini Lazari	Independent non-executive member
Spyridoula Papagiannidou	Independent non-executive member
Nikolaos Chryssochoidis	Non-executive member

The composition of the Boards of Directors of the subsidiaries is the following:

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

5.49. 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 by the courts. A significant part of the receivables is estimated to be recoverable by the companies of the Group.

5.50. Alternative Performance Measures (APMs)

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 the 1st half of 2019, the only item that affects the adjustment of the indices used by the Group in order to calculate APMs is the valuation of the shares of a bank listed on the Exchange that it possesses, which is recorded in Other Comprehensive Income.

in € thousand	01.01-30.06.2019	01.01-30.06.2018
Statement of Comprehensive Income		
Other Comprehensive Income	**0**	**0**
Share valuation	1,115	(71)
Total	**1,115**	**(71)**
Grand total	**1,115**	**(71)**

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	01.01-30.06.2019	01.01-30.06.2018	Deviation %
EBITDA	**4,984**	**5,334**	**(7)%**

2. EBIT = Earnings Before Interest & Taxes - items affecting the adjustment

€ thousand	**01.01-30.06.2019**	**01.01-30.06.2018**	**Deviation %**
EBIT	**2,963**	**3,698**	**(20)%**

3. EBT = Earnings Before Taxes - items affecting the adjustment

€ thousand	**01.01-30.06.2019**	**01.01-30.06.2018**	**Deviation %**
EBT	**3,156**	**3,965**	**(20)%**

4. EAT = Earnings After Taxes - items affecting the adjustment

€ thousand	**01.01-30.06.2019**	**01.01-30.06.2018**	**Deviation %**
EAT	**2,239**	**2,758**	**(19)%**

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	**01.01-30.06.2019**	**01.01-30.06.2018**	**Deviation %**
Cash flows after investment activities	**7,704**	**11,219**	**(31)%**

6. Return on Investment (ROI) %

$$= \frac{\text{Earnings Before Taxes + Interest \& related expenses – items affecting the adjustment}}{\text{Total liabilities (reduced by third party cash \& cash equivalents) + average interest bearing liabilities during the year}} \times 100$$

€ thousand	**01.01-30.06.2019**	**01.01-30.06.2018**	**Deviation %**
Return on Investment (ROI)	**14%**	**16%**	**(13)%**

7. Adjusted Return on Equity (ROE), %

$$= \frac{\text{Earnings After Taxes – items affecting the adjustment}}{\text{Total Equity (average)}} \times 100$$

€ thousand	01.01-30.06.2019	01.01-30.06.2018	Deviation %
Return on Equity	**2.07%**	**2.40%**	**(14)%**

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	01.01-30.06.2019	01.01-30.06.2018	Deviation %
Degree of Financial Self-Sufficiency	**80%**	**83%**	**(4)%**

The only APM out of those used by the Group that is affected during the 1st half of 2019 is:

9. Adjusted EPS $= \dfrac{\text{Net Earnings attributable to the owners of the parent Company – items affecting the adjustment}}{\text{Average number of shares during the period}} \times 100$

€ thousand	01.01-30.06.2019	01.01-30.06.2018	Deviation %
EPS	**0.056**	**0.045**	**24%**
Other comprehensive income	3,354	2,687	25%
Share valuation	(1,115)	71	0%
Net adjusted other comprehensive income	**2,239**	**2,758**	**(19)%**
Average number of shares during the period	**60,348,000**	**60,348,000**	**0%**
Adjusted EPS	**0.037**	**0.046**	**(20)%**
Deviation %	**(34)%**	**2%**	

5.51. Events after the date of the financial statements

- Athens Stock Exchange and Bank Audi SAL participated in the competitive bid process that was organized by the Lebanese Capital Markets Authority (CMA) for the Establishment of a new Exchange (Electronic Trading Platform – ETP) in Lebanon, by forming a Consortium in which ATHEX contributed with its know-how as an International Operator and as Systems and Services provider and Bank Audi with its experience and leading position as a financial institution operating in Lebanon, and the wider Middle East and North Africa region.

  Following a selection process where 3 bids were submitted, the CMA awarded through a letter to the Bank Audi-ATHEX Consortium the establishment of the new Exchange. The Consortium will contribute $20 million to the ETP's share capital. ATHEX's related participation is expected to reach $1 million.

  The active involvement of ATHEX in the new Lebanese Exchange 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) since 2017, in designing and supporting solutions for third parties in the financial industry, in setting up to provide systems and services to the Hellenic Energy Exchange (ENEX) (since 2018) and its recent involvement in the privatization of Boursa Kuwait (2019).

  As a next step, ATHEX along with Bank Audi will closely cooperate with the CMA to implement an effective capital market which will appeal to local and international investors and contribute to the growth of the Lebanese Capital Markets.

- Following the vote on the new government's policy plan, a new law is expected to be voted that will set the corporate income tax rate at 24%, from 28% currently, for fiscal year 2019. It should be noted that the Company used the 28% rate in calculating income tax on the earnings of the 1st half.

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 30.06.2019, the date of the 1st half 2019 interim financial statements and up until the approval of the interim financial statements by the Board of Directors of the Company on 25.07.2019.

Athens, 25 July 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 ___________________________