

A close-up, shallow depth-of-field photograph of business professionals in a meeting. In the foreground, a hand holds a silver pen, pointing towards a document held by another person. The background shows the blurred figures of other people in business attire, suggesting a collaborative work environment. The lighting is warm and professional.

**ANNUAL  
REPORT**

**2018**

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## CHAIRMAN'S MESSAGE

Both members of the KELER Group closed the jubilee year of 2018 with good performance. It was a special year as KELER Ltd. celebrated the 25th anniversary of establishment, while KELER CCP Ltd, its subsidiary, celebrated the 10th anniversary of establishment.

Similarly to the past two and a half decades, it was demonstrated last year also that the KELER Group, as the most important background institution of the Hungarian capital market, has especially solid foundations, outstanding expertise, recognized experts, and an information technology system in line with current requirements to assure smooth market operation.

The year 2018 was significant not only because of the special anniversaries, but also because KELER CCP updated and KELER Ltd. reassessed earlier strategic goals. Jointly with the operative management, the Board of Directors strives to ensure the prudent operation of the Hungarian capital market in the first place, while continuing to see important growth potential in taking an active role on international markets based on domestic clearing house and depository experience. In light of this, the medium and long-term objective of the KELER Group is to play a leading role on the regional market of depositories and clearing houses. In harmony with the aforesaid, in addition to the development of the basic infrastructure, the KELER Group strives to meet, in many cases foresee market demand, and continuously searches for expansion opportunities.

We have received the mandate of owners to continue the work based on which goals can be achieved, and I am certain that the KELER Group will take the opportunities of development. Our thanks are due to the owners and our partners for the good results achieved in 2018, and the steps taken in the interest of the international expansion already mentioned. I also say thank you to all the experts of the KELER Group that worked hard to contribute to the results of this year and to continued development.

I have a positive view of the future of the Group. Services based on excellent experts and developments will continue to ensure the high quality operation of domestic and international capital and energy markets, which is a guarantee of professional and financial achievements in the years to come.



ZSOLT SELMECZI-KOVÁCS DR.

Chairman



# CHIEF EXECUTIVE OFFICER'S MESSAGE

The KELER Group closed the year 2018 with outstanding result, suiting the 25th anniversary of establishment of the parent company KELER and the 10th anniversary of establishment of the subsidiary KELER CCP. Similarly to the previous period, 2018 was an eventful year: while the economic performance of developed countries increased in 2018, the whole of the European Union was characterized by moderate GDP growth. In Hungary, economic prosperity continued, and most areas of the economy contributed to the growth, with market services based on internal consumption having the largest share of contribution. The increasing pace of inflation slightly slowed down by the end of the year, price level was 2.8% higher than in the previous year.

The favourable money and capital market trends in Hungary and tight cost control had a positive influence on the 2018 results of KELER also, as a result, KELER performance was better than planned and total income in 2018 amounted to HUF 5.836 billion, 2.9 percent higher than planned and 1 percent more than last year. As in previous years, income from account management represented a decisive part of income, nearly HUF 100 million more than planned in the case of securities services, and nearly HUF 50 million more than planned in the case of issuer services. All in all, KELER closed the year 2018 with a result before tax of HUF 1.684 billion instead of the planned HUF 314.1 million. The subject period result of the Company in 2018 totals HUF 1.450 billion and the shareholders decided to pay a dividend of HUF 4 billion.

The year 2018 can be considered a most eventful period in all respects, as a decision was made to change the operating model of KELER and to renew internal processes, as part of the KELER Service Development Program (KSP). The objective of the new project is to achieve the automated, full-scale T2S harmonization of KELER, and to develop in several phases a modular and scalable IT system supporting the services of KELER and in line with applicable requirements. During the planning of the renewed Program, particular attention was paid to ensure the consistency of new developments with regulatory expectations and the long-term service development plans of the KELER Group.

In accordance with the requirements of the CSDR, all European Union depositories are to obtain repeated authorization for operation in line with the provisions of the EU regulation. KELER submitted to the Magyar Nemzeti Bank as competent authority the request for repeated authorization under the CSDR on 29 September 2017, and is expected to receive the authorization to offer central securities depository and banking-type ancillary services under the CSDR in 2019.

In preparation for and in order to facilitate capital market harmonization, in 2018, with the cooperation of KELER, the MNB and the BSE and with the involvement of the key players of the Hungarian capital markets, a concept document summarizing the measures to be taken regarding the reform of corporate actions was finalized. Legal preparations with the participation of market players and the assessment of data sets and technical solutions necessary for the creation of the Golden Source database that can be considered the basic pillar of harmonization were started.

Regional network building is a key point of the international strategy of KELER, and KELER creating direct account relationships (so-called depository links) with the central securities depositories of certain markets to be able to perform settlement without the involvement of other service providers is a cornerstone of this strategy. KELER intends to offer full-scale custody services on the markets served (settlement, financial settlement, safekeeping, corporate action management, etc.). As the first phase of the international project of KELER, the direct Polish link was opened in May 2018, and the assessment of additional markets was started in cooperation with the EBRD (e.g. Bulgarian, Austrian, Czech, Romanian markets).

In 2017, KELER received its Approved Registered Mechanism (ARM) and Approved Publication Arrangement (APA) authorizations, and on 3 January 2018, it launched services related to the reporting and publication requirements stated in MiFID II./MiFIR. As a result, clients can meet the reporting and publication requirements stated in regulations through KELER as ARM and APA, and KELER can provide a full-scale solution to its partners regarding MiFID II./MiFIR.

The European regulatory authorities continuously encourage the increasingly widespread use of the LEI code. With this in mind, KELER prepares to meet increased needs by creating appropriate infrastructure and efficient processes and by obtaining the LEI LOU licence. KELER expects to become an accredited LEI code issuer in 2019 depending upon the various licensing procedures.

The Magyar Nemzeti Bank introduces the instant payment service to improve the efficiency of domestic payments, to increase the competitiveness of the payment market and the Hungarian economy. During implementation, business and IT requirements were assessed, and the necessary IT developments were started in 2018. Based on the project plans, KELER will be able to meet the deadline set by the MNB and GIRO to start the service.

Looking back on the operation of 25 and 10 years of KELER and KELER CCP respectively, it can be concluded that the operation of the two companies was characterized by continuous development and market development. As a background institution of the capital market, with the varied product and service offer developed in the meantime, KELER contributed to the development of the Hungarian securities market, and supported its development from the very beginning in cooperation with market participants, ensuring its secure and smooth operation. In 2010, the KELER Group entered energy (gas, power) markets, and has had notable success in energy market clearing in both Hungary and on the international market. Out of the many achievements of the past 25 years, I would like to highlight that KELER became an internationally known and recognized central securities depository and KELER CCP became the leading clearing house of the region. Our objective is to ensure that as a stable, reliable and innovative market player in the coming years, decades, the KELER Group provides the background infrastructure of domestic capital and energy markets, and puts to good use in the region also the experience and expertise acquired.

I would like to say thank you to the owners of the KELER Group, Hungarian credit institutions, investment companies, issuers, and capital, gas and energy market participants, and all KELER Group employees for ensuring that in 2018 and in the past 25 years the Group could adhere to high standards and focus on professional duties.

**ATTILA MÓNUS**

Chief Executive Officer



## MARKET ENVIRONMENT

In terms of global events, 2018, like 2017, was an eventful year. Global markets of money, capital, and energy, as well as investor sentiment were impacted by numerous miscellaneous conflicts and changes. Regarding the United States of America alone, a number of significant events could be recalled, such as the USA's decision to start a trade war with China which lasts to this day; the USA announced in May to exit the nuclear pact with Iran; US President Donald Trump and North Korean dictator Kim Jong-un met in June to negotiate denuclearisation of North Korea. After an eight-year hiatus, the Democrats recovered majority in the United States House of Representatives at the midterm election held halfway President Trump's term in November. In December, the government had shut down for the third time under Donald Trump's presidency, and this time it was the longest in US history.

Against this background, historic US stock index Dow Jones Industrial Average Index (DJIA) dropped 6 per cent compared to closing on the last trading day in the previous year, and the S&P 500 eased 7 per cent in 2018.

Major European stock indices performed even worse, for example the DAX index in Frankfurt plunged 18 per cent, London's FTSE 100 came down 12 per cent, and EURO STOXX 50 plummeted 14 per cent.

After an initial stagnation, the euro eased against the US dollar continuously in 2018 at the international forex market, starting the year at EUR/USD 1.206 and allowing the US currency to firm to EUR/USD 1.146 by the end of the year. In the EUR/CHF market the euro was firming in the first half of the year, only to settle into a continuous slide after a sudden plunge early summer, consequently easing 3.9 per cent against the Swiss currency in 2018 overall. The

GBP/EUR reflected substantial volatility throughout 2018, eventually closing the year up 1.3 per cent compared to the beginning of the year. The euro eased against the Japanese yen, too, with minor fluctuations, registering a 7.1-percent depreciation in 2018 in annual terms. The euro firmed 6.4 per cent against the Canadian dollar in the first quarter, closing the year up 3 per cent after a correction phase.

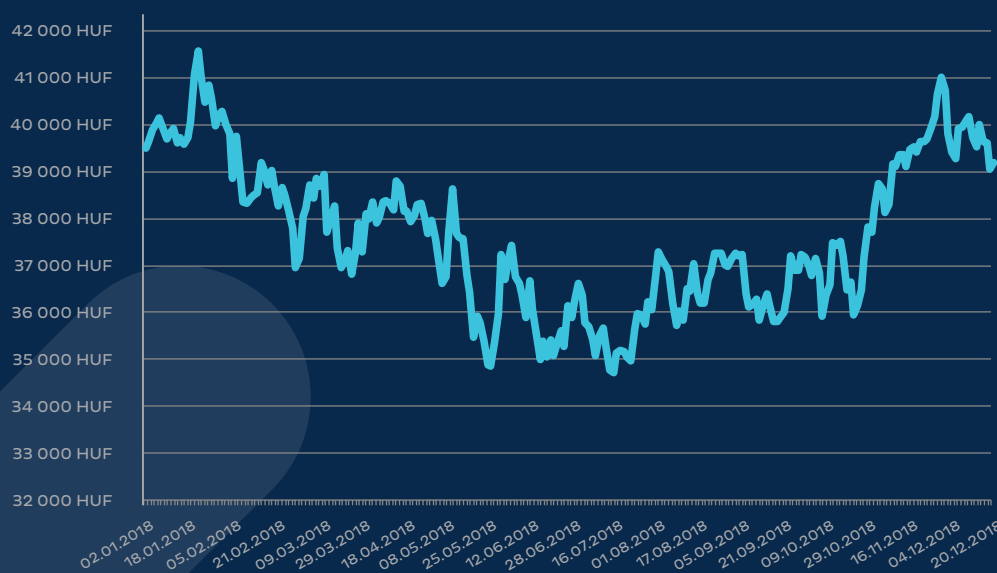
The Hungarian currency eased heavily against the euro in the first half of the year, even hitting the EUR/HUF 330 mark. In the second half of the year, the forint fluctuated in a range between EUR/HUF 320 and 328. Eventually, it showed a 4-percent depreciation against the European currency.

The prime rate in Hungary remained intact throughout 2018, standing at 0.90 per cent on 31 December. Inflation increased by the end of 2018 at a brisker pace than in 2017, but at the end of the year it reflected a decline due to lower fuel prices. The Consumer Price Index stood at 2.7 per cent in 2018.

Hungary's national debt amounted to HUF 28,688.2 billion at the end of 2018, up 7.3 per cent from the end of 2017. National debt at the end of year comprised 79.46 per cent forint debt, 19.96 per cent forex debt, and 0.58 per cent in other obligations.

The BUX index, the main stock benchmark of the Budapest Stock Exchange, decreased in the first half of the year steadily, hitting the lowest on 18 July 2018 at 34,720 points. But from this point on, however, it started to firm, nearly recovering by the end of the year to the level registered at the beginning of 2018. Overall, the BUX index eased a mere 0.8 per cent in 2018, a particularly positive development in global comparison.

### CHANGES OF THE BUX INDEX IN 2018



# REGULATORY ENVIRONMENT

The operation of KELER in 2018 was impacted by new legislations and also by amendments to existing laws listed below, and continues to be impacted by legislation published in 2018 or prior:

- Act CXX of 2001 on capital markets,
- Regulation 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU as well as Regulation 236/2012 (CSDR),
- Act CCXXXVII of 2013 on credit institutions and financial enterprises,
- Regulation 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation 648/2012 (CRR),
- Act CXXXVIII of 2007 on investment enterprises and commodities exchange service providers as well as on regulation of activities they are licensed to implement,
- Act V of 2013 on the Civil Code,
- Act CXXXIX of 2013 on the National Bank of Hungary,
- Act XVI of 2014 on collective investment designs and managers thereof as well as amendments on certain laws with financial focus,
- Act XLIX of 1991 on bankruptcy procedures and liquidation processes,
- Act LXXXV of 2009 on the provision of payment services,
- Act XIX of 2014 on the Agreement between the Government of Hungary and the Government of the United States of America to Improve International Tax Compliance and to Implement FATCA as well as on the amendment of the related laws,
- Act LIII of 2017 on prevention of money laundering and terrorist financing, Act XXXVII of 2014 on the further development of the institution system furthering the security of players in the financial intermediary system (Resolution Act),
- Government Decree 284/2001. (XII. 26.) on the production, transmission methods, and securities regulations of dematerialised securities as well as the regulations of the initiation and management of securities accounts, central securities accounts, and customer accounts,
- Government Decree 67/2014. (III. 13.) on matters related to the recording of stock registers of joint stock companies,
- National Bank of Hungary Decree 20/2014. (VI. 3.) on ISIN numbers,
- National Bank of Hungary Decree 35/2017. (XII. 14.) on implementation of payments.

KELER participated in the preparation and consulting work of a number of laws related to its operation in 2018.

## Annual General Meeting

**The Annual General Meeting of KELER was held on 30 May 2018.**

The agenda of the Annual General Meeting included, among others:

- Report of KELER Zrt. Managing Board on the activities carried out in the business year 2017;
- Approval of KELER Zrt.'s report prepared in line with Act C of 2000 on accounting as well as decision on distributing the Company's after-tax profit;
- Approval of KELER Zrt.'s IFRS consolidated report;
- Authorisation to establish Shareholder Loan Agreement between KELER Zrt. and KELER KSZF Zrt.;
- Amendment to the regulation on the remuneration of executive officers, members of the Supervisory Board, and senior employees as defined in Article 208 of the Labour Code as well as the benefits to be provided in the event of termination of their labour contracts;
- Amendment to the Cooperation Agreement between KELER Zrt. and BÉT Zrt. [Budapest Stock Exchange Co. Ltd.];
- Amendment to Section 12.3 of the Articles of Association (Company Registration);
- Alteration of the Auditor's remuneration;
- Election of executive officers and chairman of the Managing Board as well as members and chairman of the Supervisory Board.

**An Extraordinary General Meeting was held by KELER on 11 October 2018.**

The agenda of the Extraordinary General Meeting included, among others:

- Raise KELER KSZF Zrt.'s equity;
- Amendment to the Shareholder Loan Agreement between KELER Zrt. and KELER KSZF Zrt.



# FINANCIAL PERFORMANCE OF KELER



Overall, economic performance of developed countries increased in 2018, but the 1.8-percent GDP growth reported for the entirety of the European Union meant the slowest pace in recent years. Hungary's economic upswing continued as the macrodata for the first three quarters indicated a GDP growth over 4 per cent. Economic expansion benefited from most sectors of the economy with market services based on domestic consumption providing the highest contribution among them. Additionally, the volume of investments was also substantial as it was nearly 17 per cent higher than the basis in the previous year (which had also been high). The accelerating growth of inflation slowed down somewhat by the end of the year as prices were 2.8 per cent higher than one year earlier.

KELER Zrt.'s fee income also benefited from positive market processes in 2018, as a result of which this item came in nearly HUF 150 million higher than the target defined in the business plan. Like in previous years, the decisive majority of the revenues was generated by income from account management in 2018 as well. Among the individual product groups, securities services and issuer services reflected a more robust rise in income. In the segment of securities services, the actual income was nearly HUF 100 million higher than the 2018 plan, and the income realised on issuer services was nearly HUF 50 million higher.

Adjusting to the opportunities ensured by the AC model under IFRS 9, KELER's interest income in 2018 was considerably lower than in previous years. The current portfolio still includes a substantial amount of securities that offer higher returns than the level achievable at the market, continuing to ensure moderate profits for KELER in the years ahead. The interest result in 2018 came in at HUF 689 million, up nearly HUF 29 million from the target.

Operating expenses remained well below plans, which was mainly due to the release of provisions allocated in 2017 on contractual obligations. Until the end of the year, HUF 1,180 billion had been saved, out of which the release of provisions amounted to HUF 786 million.

The Company's operating result amounted to HUF 1,684.4 million, reflecting a favourable image of KELER's financial management in 2018.

Like the operating result, the Company's pre-tax result amounted to HUF 1,684.4 billion.

Prior to the business year starting on 1 January 2018, the Company had prepared its individual financial reports in line with Hungarian accounting standards. As a specialised credit institution, the Company, starting with the 2018 business year, is obliged to prepare its financial reports in line with IFRS standards enacted by the European Union, pursuant to Act CLXXVIII of 2015 related to the Hungarian implementation of International Financial Reporting Standards for the purpose of individual reporting as well as on the amendment of certain laws with financial focus.

The Company has for years disclosed financial reports compiled according to IFRS with regard to its consolidated financial reports, but has not yet released its individual financial reports in line with IFRS. Therefore, the Company is considered to be an entity that applies IFRS for the first time in 2018 in its individual financial reports in line with IFRS 1 regulations even though it does not qualify as such in terms of consolidated financial reports.

The date of first application of IFRS in the case of individual financial reports is identical to the first day of the comparative period, notably 1 January 2017.

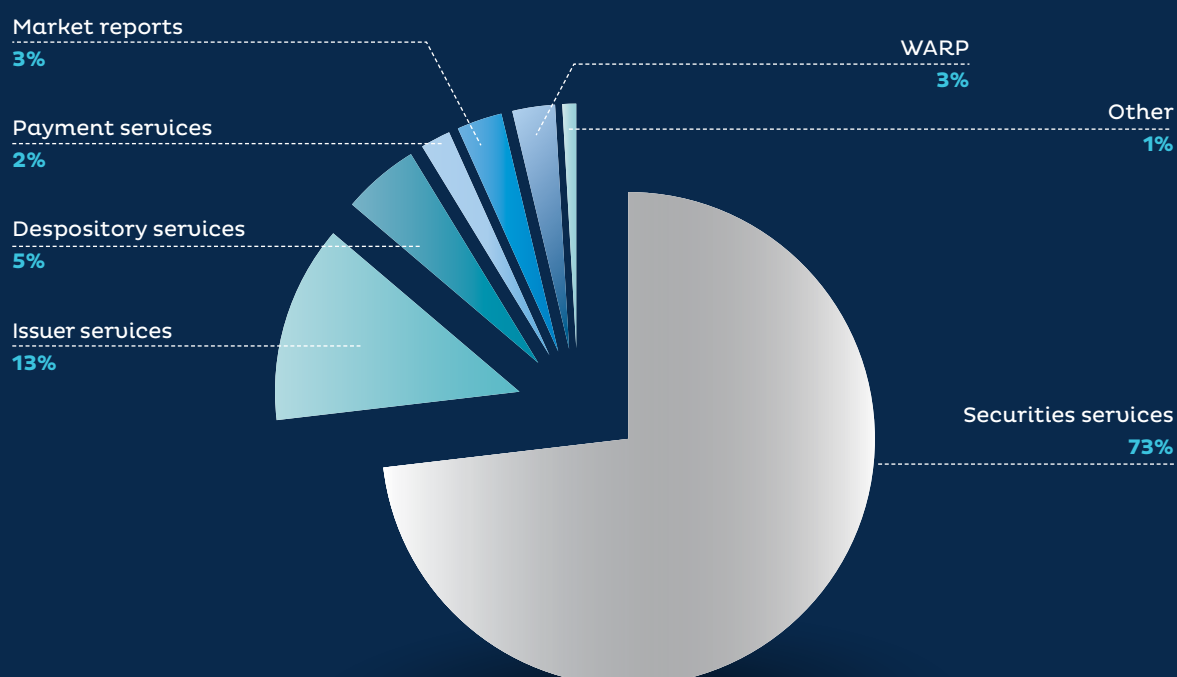


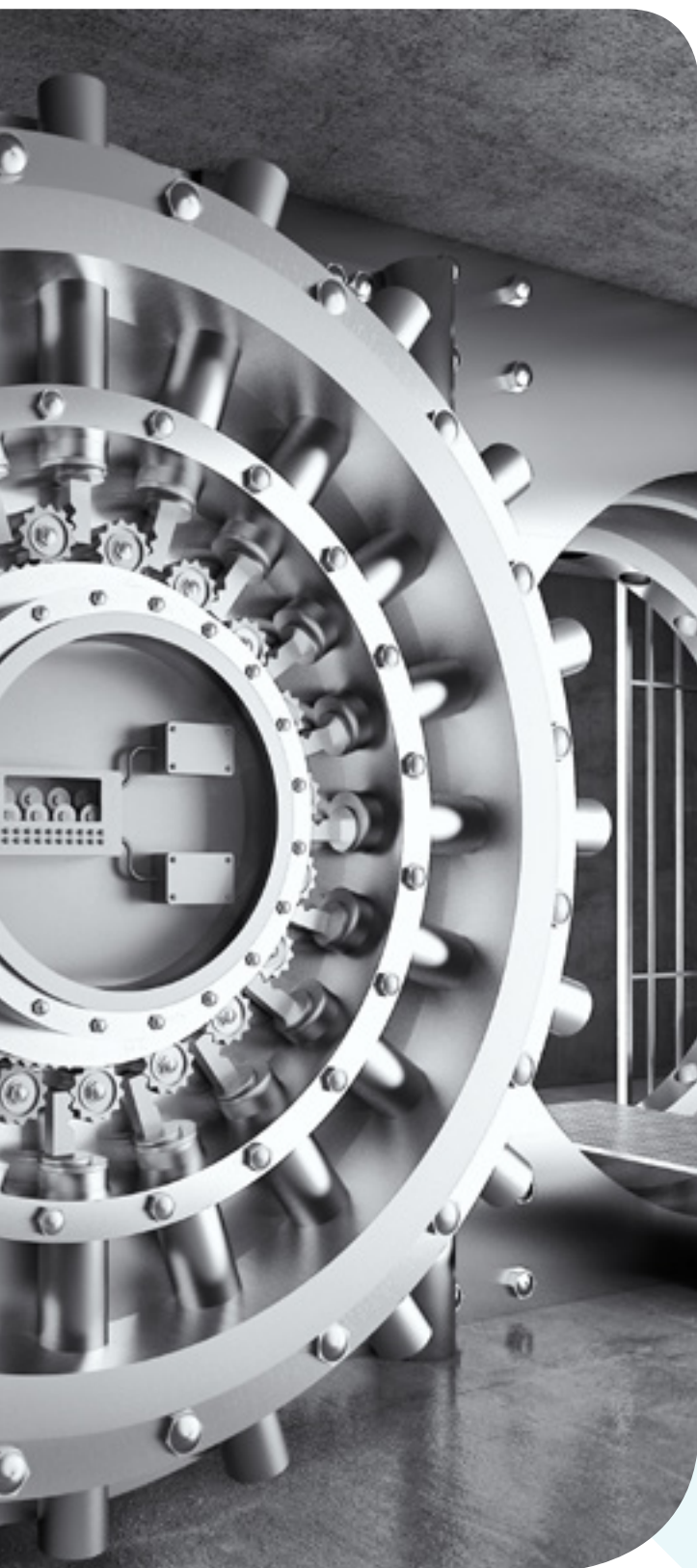
## KELER Results

(in million HUF)

Item	2017 actual	2018 plan	2018 actual	Performance actual/plan (%)
Fees and commission from depository and credit institution activity	4 538.3	4 706.5	4 856.4	103.2%
Infrastructural revenues	269.8	315.0	294.4	93.5%
Interest margin	906.6	660.3	689.6	104.4%
Net gains/losses on securities	297.3	-10.0	-2.6	25.8%
Anticipated impairment	0	0	-2.0	0
<b>Result from main activity</b>	<b>6 012.0</b>	<b>5 671.8</b>	<b>5 835.8</b>	<b>102.9%</b>
<b>Operating expenses</b>	<b>5 547.1</b>	<b>5 362.7</b>	<b>4 184.3</b>	<b>78.0%</b>
<i>thereof : personnel expenses</i>	2 050.7	2 436.2	2 384.5	97.9%
<i>impairment</i>	421.3	429.8	425.5	99.0%
<b>Impairment</b>	<b>3 342.2</b>	<b>0</b>	<b>70.0</b>	<b>0</b>
<b>Other revenues, expenditures</b>	<b>20.8</b>	<b>5.0</b>	<b>102.8</b>	<b>2056.5%</b>
<b>Operating result</b>	<b>-2 856.6</b>	<b>314.1</b>	<b>1 684.4</b>	<b>536.2%</b>
<b>PROFIT BEFORE TAX</b>	<b>-2 856.6</b>	<b>314.1</b>	<b>1 684.4</b>	<b>536.2%</b>

### Fees and commissions from clearing, depository, and credit institution activities (2018)





## TREASURY

This business segment concluded 2018 on a HUF 725 million result.

Compared to the previous year, the volume of assets under management by Treasury decreased substantially, as its annual daily average barely exceeded HUF 49 billion. Government securities accounted for 88 per cent in the composition of assets under management, while short deposits had a 10-percent share. A large percentage of the government securities portfolio was comprised of Discount Treasury Bills with the aim of maintaining short-term liquidity continuously throughout the year. The median duration of the portfolio was less than 12 months.

KELER met all its mandatory provisions obligation for all terms, and its median rate was barely 1 per cent of total assets under management.

Beside trading with government securities, KELER directed substantial focus to participating actively in the repurchase market for government securities. By the end of the year, the total "repo" volume had exceeded HUF 2,143 billion.

To fulfil that purpose, KELER has been expanding its customer base both in domestic and international markets.

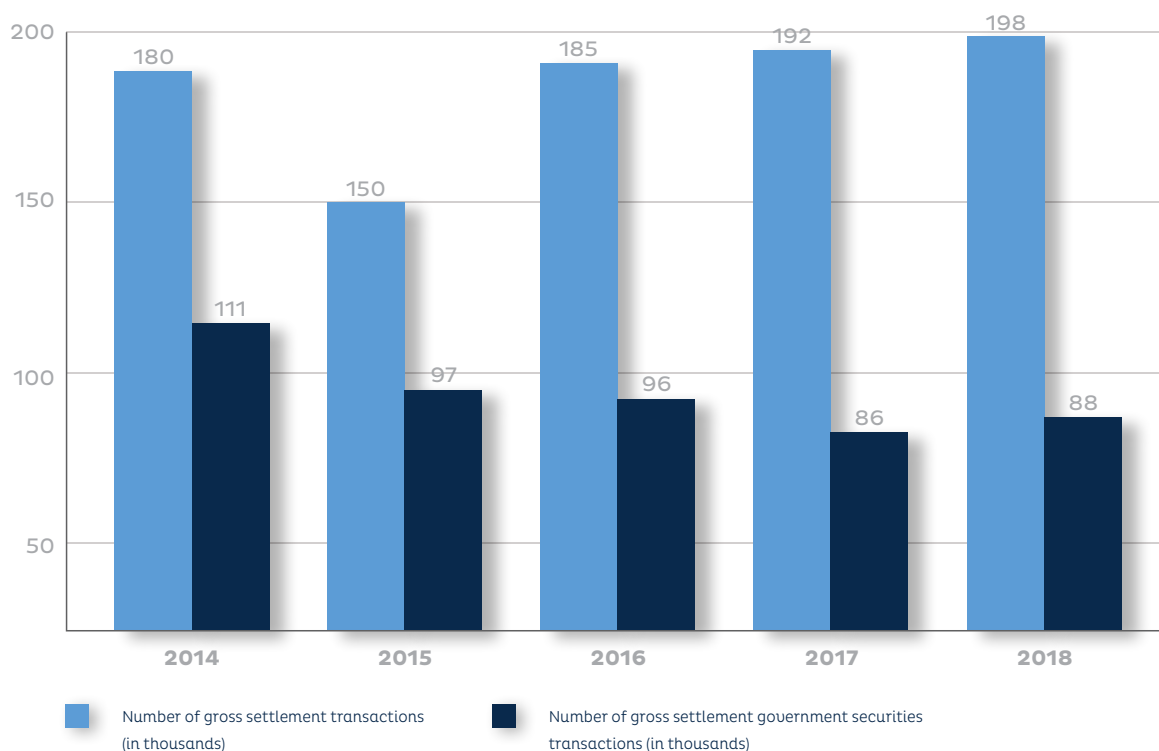
# BUSINESS ACTIVITY

## Forint settlement of securities transactions

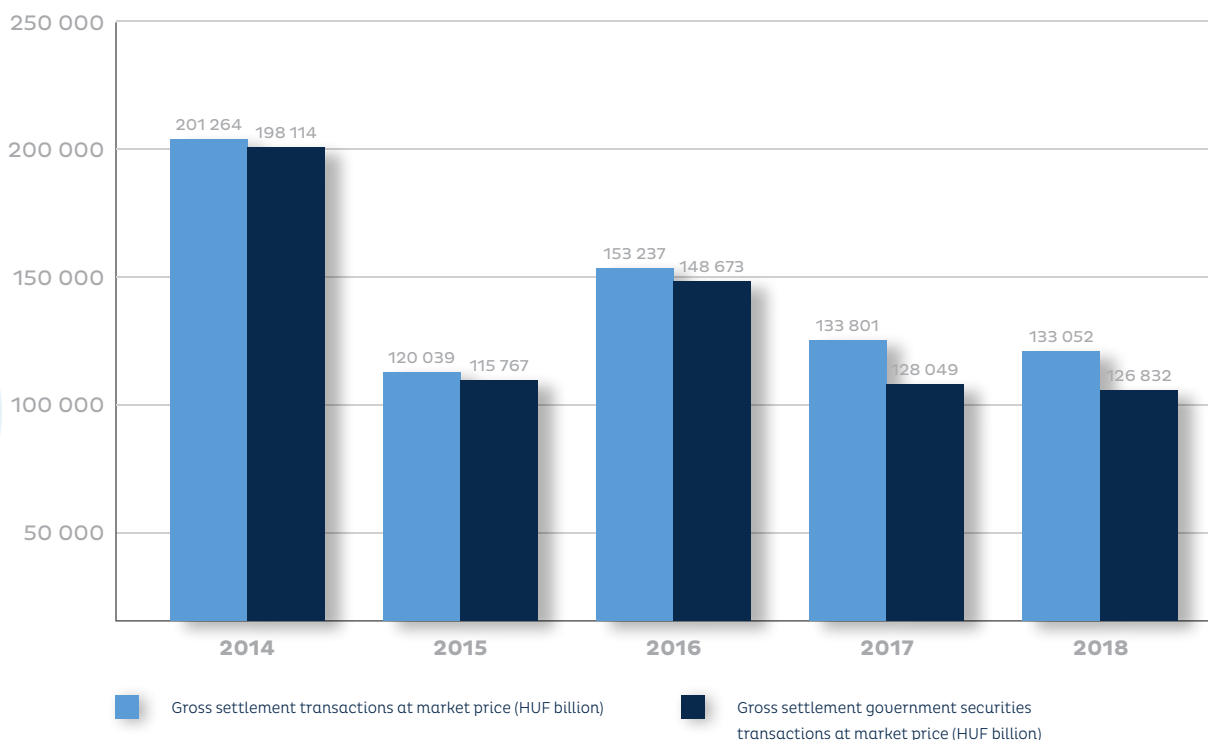
Reported at purchase price, the volume of Gross Settlement Transactions in 2018 decreased by less than one per cent compared to the previous year, totalling HUF 133,052 billion. Despite a decline in volume, the number of transactions increased in the surveyed period, resulting in a 3-percent positive change. The earlier trend of a decline in the number of Gross Settlement Transactions in government securities changed in 2018, and their ratio increased to 44 per cent of all transactions. Those transactions still dominated, accounting for more than 95 per cent of the transactional total.



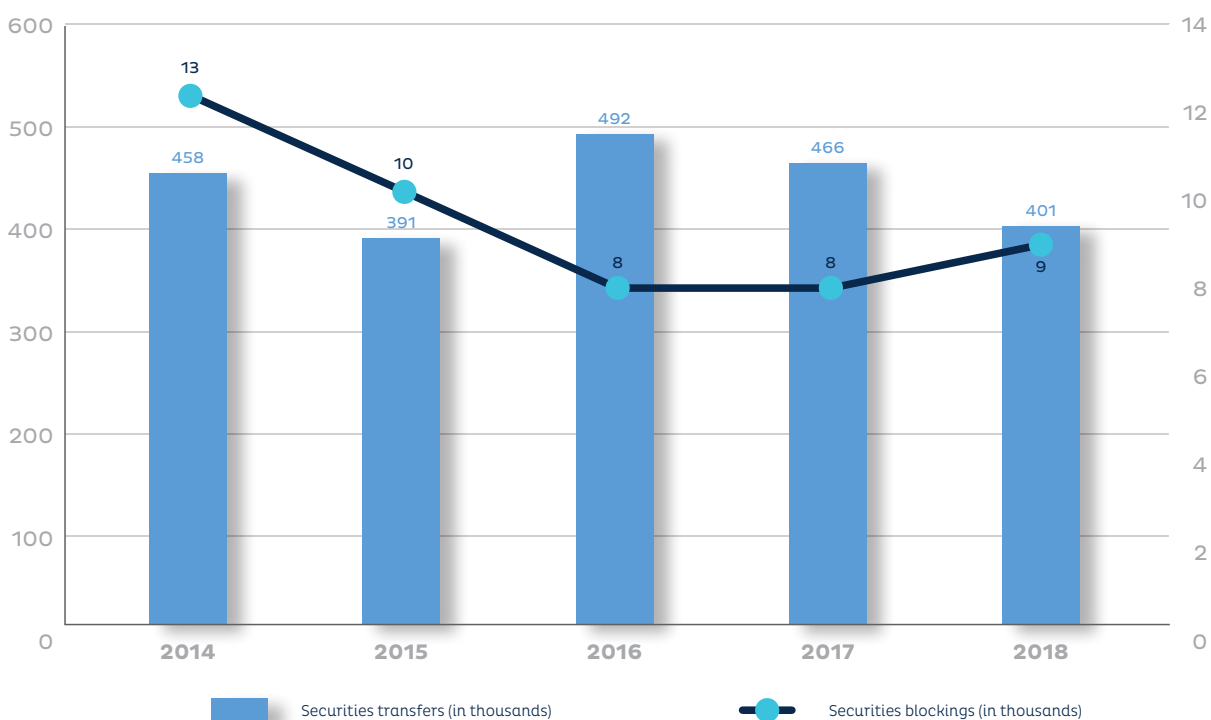
Number of transactions with gross settlement 2014-2018



### Turnover of gross settlement transactions 2014-2018



### Number of other securities transactions 2014-2018





## International settlements

KELER's services related to international securities comprise depository safekeeping of securities, processing the related transactions, full-scale management of corporate actions, and settlement of XETRA transactions established at the Deutsche Börse, a special service devised for the Hungarian market.

In accordance with CSDR regulations, gradual phase-out of the XETRA services had become necessary. The process was launched in 2017 and full phase-out was completed in September 2018.

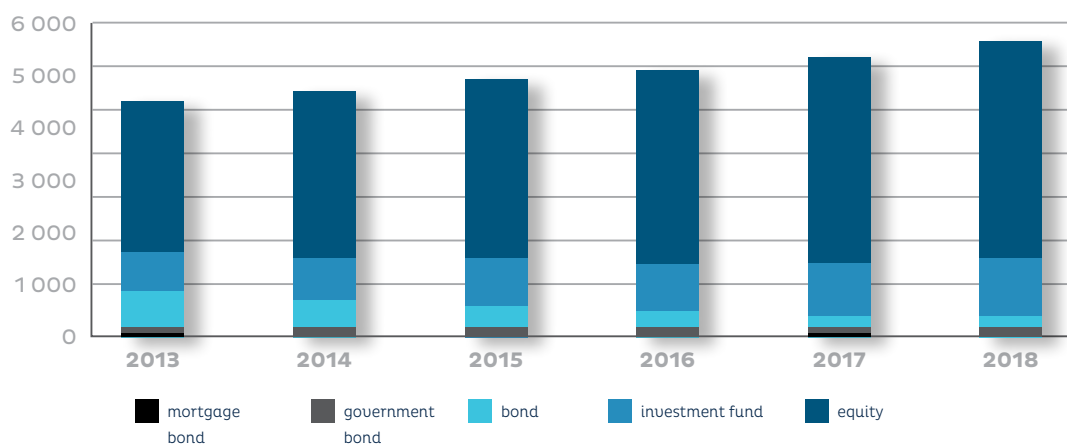
Due to the phase-out of XETRA portfolios, the international portfolio for which KELER provided depository services decreased by 34 per cent in 2018 in comparison to the previous year, but the number of cross-border transactions surged 69 per cent. Consequently, the market value of the portfolio was EUR 1.471 million and the number of settled cross-border transactions was close to 10,000.

## Central Depository Services

### DEMATERIALIZED SECURITIES SERIES

There were 5,522 live dematerialised securities series registered in securities accounts managed by KELER on 31 December 2018, up 6.5 per cent compared to 5,183 series reported as at 31 December 2017.

Number of demat securities series by securities 2013-2018

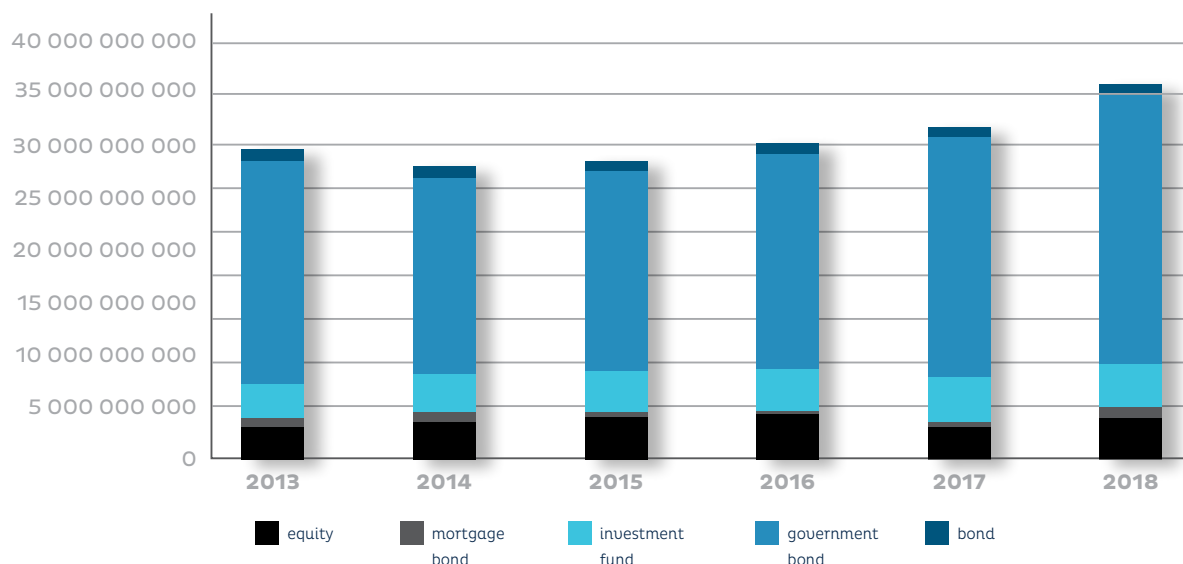


A decline in the number of bond series issued was offset by the issue of new investment notes, mortgage bonds and stock series.

### PORTFOLIO OF DEMATERIALIZED SECURITIES IN CENTRAL SECURITIES ACCOUNTS

Reported at HUF 35,557 billion as at 31 December 2018, the total of securities accounts again reflected a growth compared to HUF 31,831 billion at the end of 2017. Despite stagnation in the number of government securities series registered in the central securities account, the portfolio of government securities increased by 6.5 per cent owing to the issue of new Babakötvény [Baby Bond], Bónusz Magyar Állampapír [Bonus Hungarian Government Securities], and Prémium Euró Magyar Állampapír [Premium Euro Hungarian Government Securities] as well as secondary issues of existing long-term series. A substantial rise in the portfolio of investment notes (+52.22 per cent) was due to a low interest environment, while a substantial increase in the total of mortgage bonds (+49.61 per cent) was fuelled by the activities of mortgage banks first established in 2016 as well as the National Bank of Hungary's bond purchase programme.

Demat securities volume by securities type (in HUF) 2013-2018



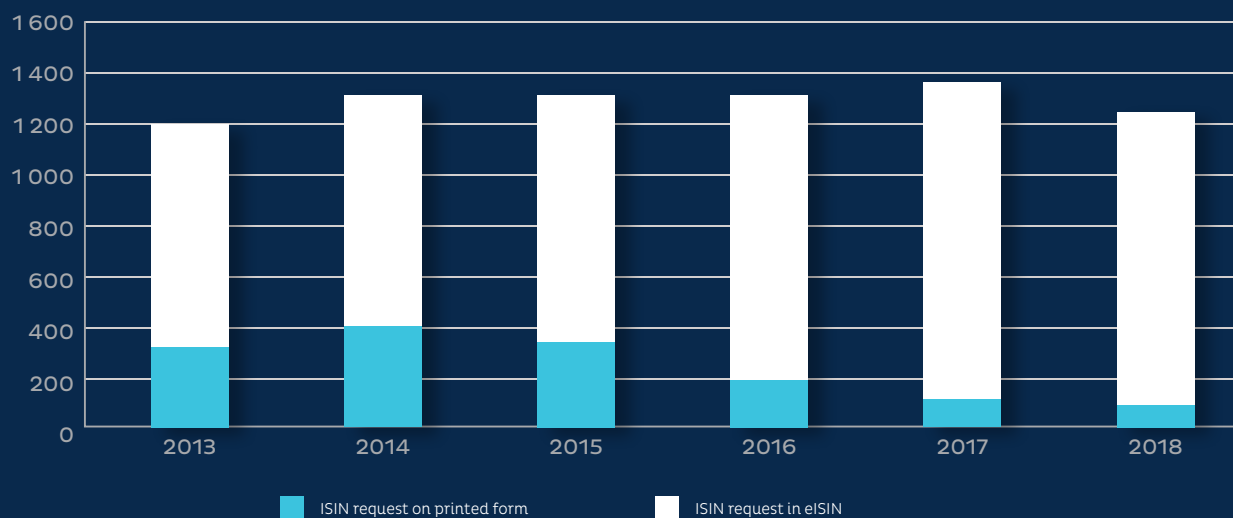
## Securities numbering

Compared to the business year 2017, KELER Company received 6.94 per cent fewer ISIN applications from Customers in 2018 (1,340 versus 1,247 ISIN applications).

The number of ISIN requests initiated through the eISIN system accounted for 90 per cent in 2018, similarly to the previous year.

By the end of the year, ISIN numbers had been allocated by KELER for 27,787 securities in total, out of which 12,832 active securities were recorded in the central securities registry as at the end of the year.

### ISIN applications by channel 2013-2018



## Investment notes – WARP

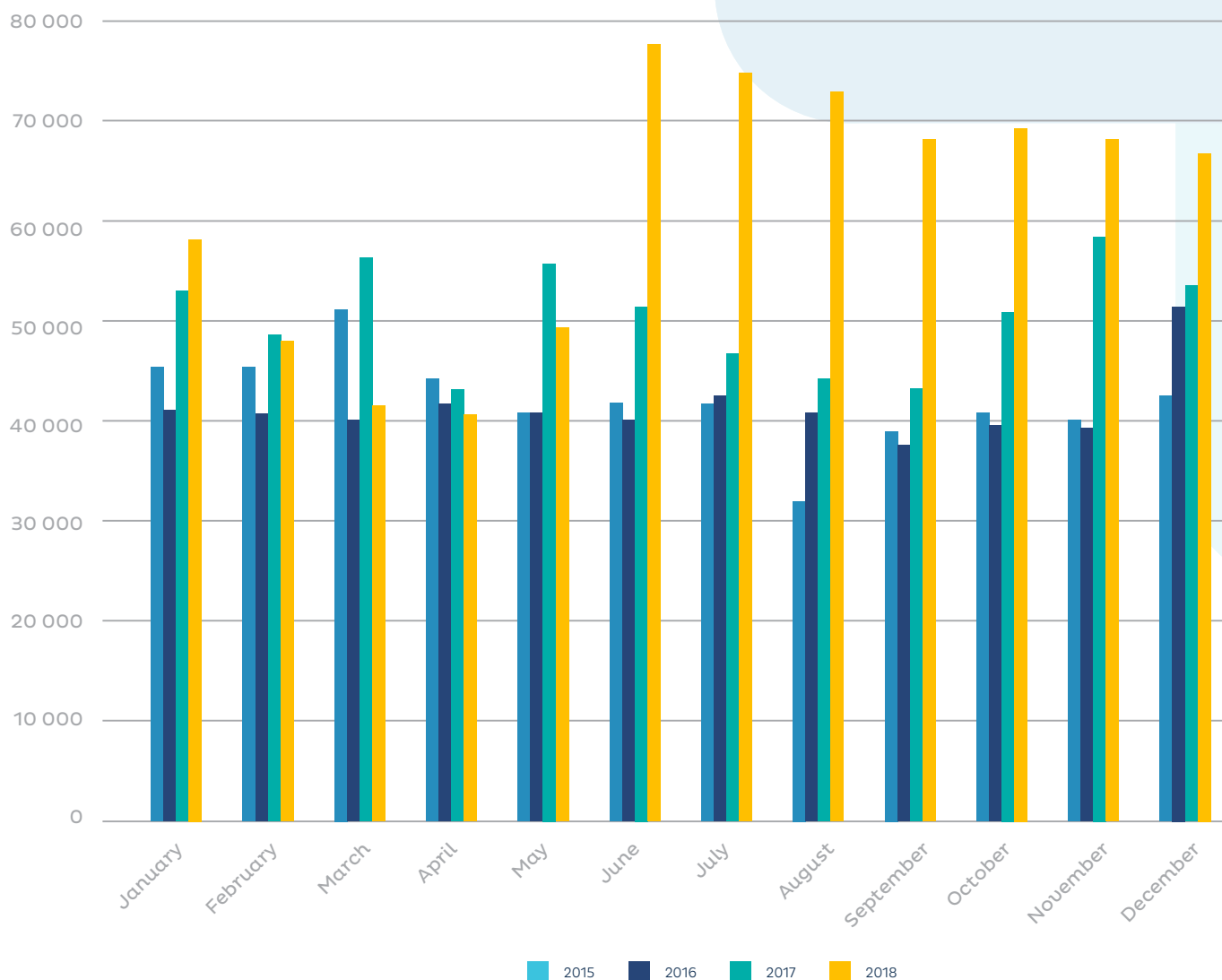
The number of individual trading orders for open-end investment notes increased by more than 20 per cent overall in 2018. This growth, however, was attributable to changes in the back-office processes of one of our major trading customers as they switched to individual orders in the case of T-day settlement funds for previous bulk orders.

Apart from that, the number of transactions executed with investment notes decreased somewhat with regard to the other players at the market. This is also underpinned by a marginal, 1.4-percent, decline in the total number of transactions recorded in securities accounts (daily secondary issues and cancellations) in comparison to the previous year. Within those transactions, the ratio of DVP (Delivery Versus Payment) secondary issues and cancellation rose at a slight rate, still representing a ratio below 30 per cent, because trading with the funds was dominated by transactions within the corporate group which were settled through FOP (Free Of Payment) transactions.

Nevertheless, signs of market activities continued to persist, providing a basis for a potential growth in the trading volume in the future:

- Distributors' networks expanded at a marginal rate: there were 1,785 ISIN live distributor relations shared by 26 trading customers, which had increased to 1,852 relations and 27 distributors by the end of 2018.
- The number of active securities series tradable in the system increased by 7.1 per cent, amounting to 741 ISIN numbers by the end of 2018.
- The number of active market players changed at a marginal rate. The number of investment asset managers that had at least one open-end, tradable securities series in the system increased to 35 from 33 reported in the previous year.

Number of WARP instructions 2015-2018

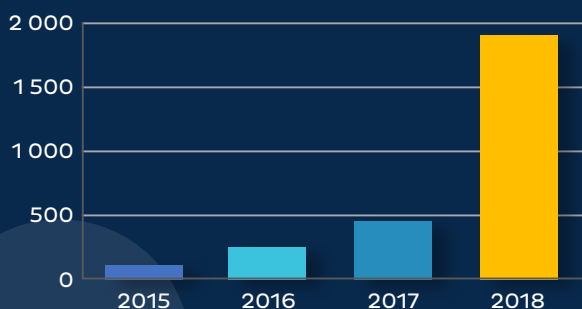




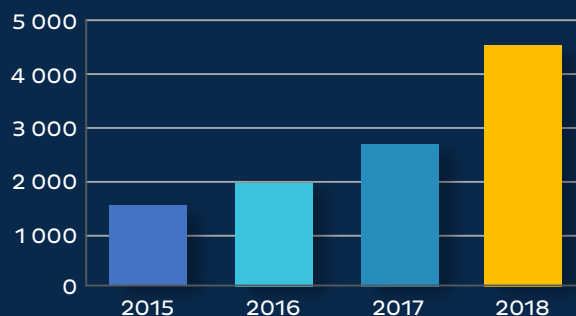
### Issue of LEI codes<sup>1</sup>

KELER has ensured for market players the opportunity to apply for Legal Entity Identifier (LEI) codes since 2014. Similarly to previous years, the number of Customers using our services increased in 2018 as well. As a result, the number of LEI codes managed by KELER exceeded 4,500 by the end of the year, up nearly 2,000 compared to the end of the previous year. On the back of legal stipulations (MiFID II), new LEI applications and renewals surged in the first half of the year. As a result of which a substantial positive change was registered both in the number of contracted customers and the LEI codes managed by KELER. With regard to LEI code issue, KELER's record of contracted customers grew more than threefold compared to 2017.

**Contracted customers (LEI code)**



**LEI codes managed by KELER**

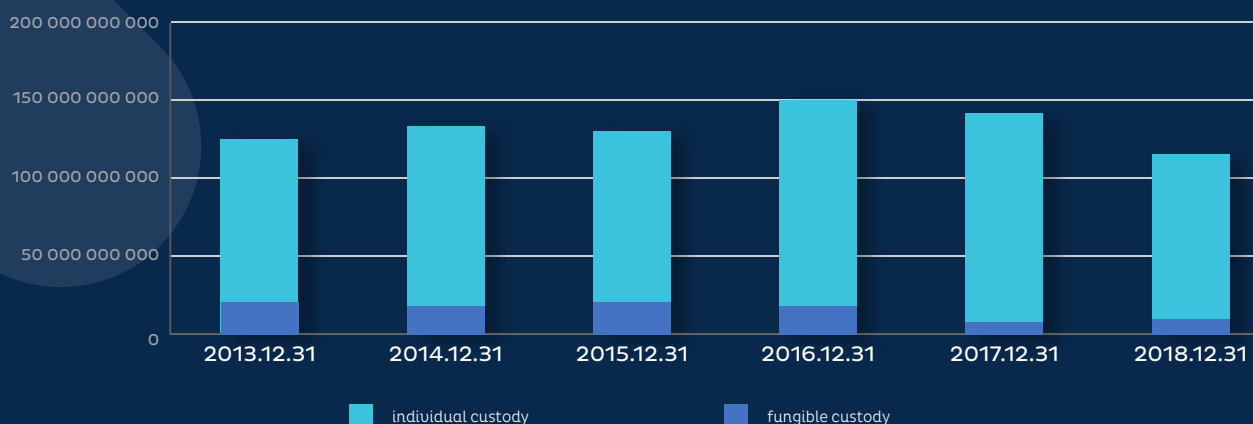


### General depository services

#### SAFEKEEPING OF PHYSICAL SECURITIES

The number of printed securities deposited with KELER for safekeeping dropped 0.57 per cent by the end of 2018 in comparison to the previous year, while their total nominal value dropped 16.91 per cent. The portfolio of securities managed in fungible safekeeping did not change, but that of individual safekeeping decreased by 17.76 per cent in comparison to the previous year. This robust contraction in individual safekeeping was due to interim deliveries. On 31 December 2018, KELER was managing 796,901 physical securities in depository safekeeping.

### Depository of print securities, 2013-2018

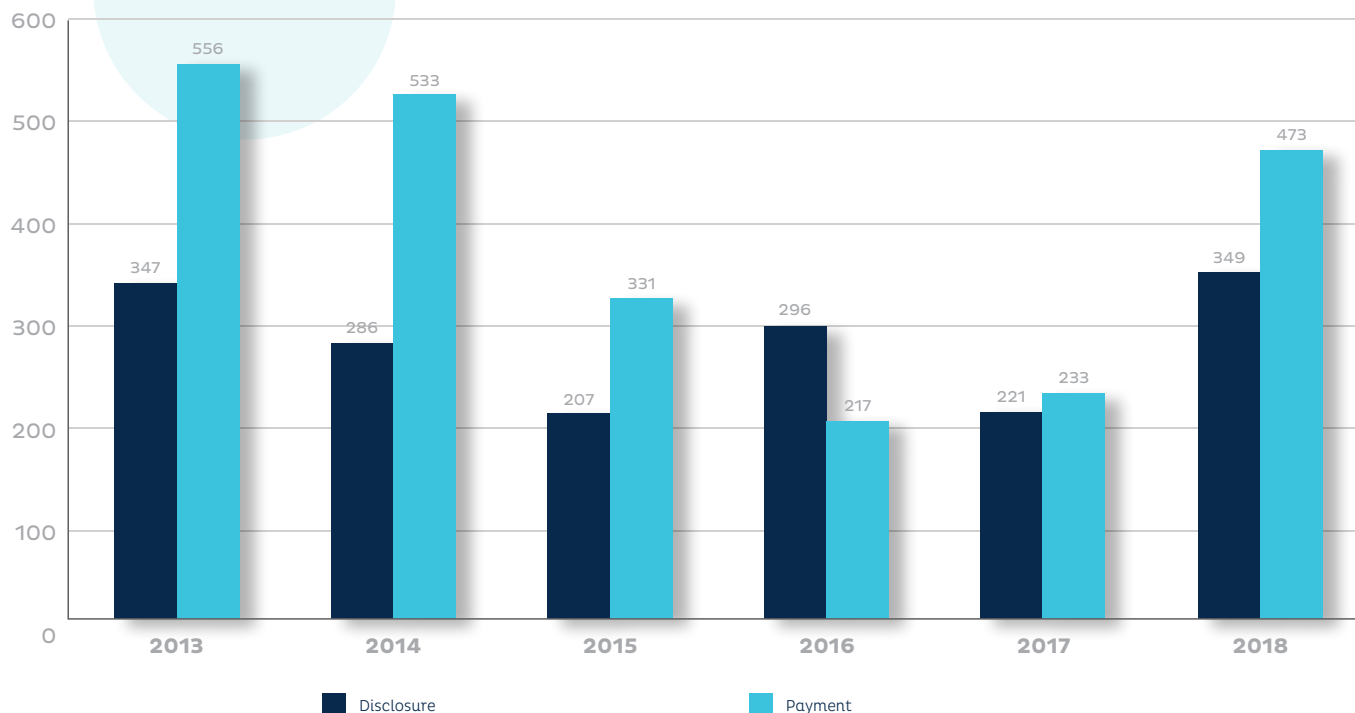


<sup>1</sup> LEI is a global identification code comprising 20 characters designed to unambiguously identify counterparties to transactions worldwide (such as banks, issuers, listed companies, brokerage companies, investment funds etc.)

## Management of corporate actions

As part of its depository activity, KELER provides Corporate Actions services, including share registry keeping, preparation and implementation of General Meetings, as well as carrying out payment orders in addition to shareholder compliance and dividend payment services.

### Corporate actions, 2013–2018



## Market reporting

KELER launched its Trade Reporting (TR) service in February 2014, which helps market players in meeting their reporting obligations as stipulated in REMIT (Regulation of Wholesale Energy Market Integrity and Transparency 1227/2011/EU) and MiFID II (Markets in Financial Instruments Directive - 2014/65/EU) as of 3 January 2018 in addition to the reporting requirements defined in EMIR (European Market Infrastructure Regulation 648/2012/EU).

In respect of reporting requirements (EMIR, REMIT, APA, and ARM) related to all trading data, KELER is now able to service players at both the energy and capital markets via

services based on its own infrastructure. Out of those four services, KELER acts as intermediary in the process, while in case of REMIT, APA, and ARM reporting the Company distributes reports as a licensed service provider.

The individual components of the service pack are currently used by nearly 150 contracted customers, and the number of our partners affected by reporting obligations is currently over 200. Non-resident market players account for an increasing number in our customer base. Sales revenues of more than HUF 100 million in total were generated by these services in 2018.

# PRIORITY PROJECTS AND SERVICE DEVELOPMENTS

## KELER Service Development Programme

The projects devised to implement the new IT system (BanCS), planned for introduction as part of the Strategic Modernisation Programme, have been reviewed by KELER. Due to radical changes in the objectives defined and in the methodology of implementation, KELER has established a new project dubbed Szolgáltatásfejlesztési Program [Service Development Programme; KSZP] whose purpose is to provide automated and full-scale T2S alignment as well as develop an up-to-date, modular, and scalable information technology system in several phases that supports the services offered by KELER.

In the development process of the updated Programme, a large amount of emphasis was put on ensuring alignment of the new developments with regulatory requirements and KELER Group's long-term service development objectives.

The new Programme will be launched with a new approach in methodology and in cooperation with reliable, domestic suppliers.

## Reforms to corporate actions processing

Commissioned by the Council of Europe in 1996, the Giovannini Group identified 15 bullet points to describe the obstacles to the settlement and distribution of cross-border payments and securities in the European Union. Non-standardised corporate actions processing was the third most important bullet point. In order to dismantle one of the most important and most complex obstacles, the working group CAJWG was established (encompassing issuers, market infrastructures, and intermediaries), which, after lengthy consultation with the market, developed a comprehensive set of market standards for the operational processing of all categories of corporate actions.

Considering the fact that the alignment of some of the corporate actions has been assumed by T2S, the Hungarian market also met a number of requirements by joining the platform (6 February 2017). However, the Hungarian capital market has yet to meet numerous standards and objectives. In order to prepare for and to further market harmonisation, a comprehensive concept material to summarise the necessary tasks related to the reform of corporate actions processing was completed by KELER in 2018 with involvement from the National Bank of Hungary, the Budapest Stock Exchange, and other key players in the Hungarian capital market.

With capital market players involved, preparatory legal work as well as identification of data scopes and technical solutions to establish the Golden Source database, considered a core pillar of harmonisation, have been launched.

## Licence update as per CSDR

In accordance with CSDR regulations, all depositories in the European Union have to renew their licence in line with the provisions of the EU regulations. In order to secure the licence, KELER started preparations in 2014 already, but due to delays in the technical standards of the CSDR regulation and implementation, the opportunity for depositories to submit the licence applications did not manifest before the spring of 2017.

KELER submitted the application for licence renewal in line with CSDR to the National Bank of Hungary as competent authority on 29 September 2017, and is expected to be granted the license authorising the Company to provide central depository and banking-type auxiliary services as per CSDR in the course of 2019.

## Regional networking

In line with its international strategy, KELER joined T2S in February 2017. Benefiting from the opportunities provided by TS2 and by KELER's special role as depository and credit institution, the Company will offer customers one-stop access (depository services) in Central and Eastern European markets (Austria, Romania, Poland, the Czech Republic, and Bulgaria). One of the core pillars of the regional offers is that KELER establishes direct account relations (depository links) with the depositories operating in the markets in question in order to make settlements directly, without involving other service providers. KELER aims to provide a full scale of depository services for the markets involved in the offer (settlement, cash distribution, safekeeping, corporate action processing etc.).

As stage one of its international project, KELER established direct link with the Polish market in May 2018 and began to survey additional markets (e.g. Bulgaria, Austria, the Czech Republic, Romania) as part of the agreement established with the EBRD. KELER plans to build its regional network gradually, in a span of two or three years.



## Market reporting (TR) – MiFID II./MiFIR<sup>2</sup>

In order to comply with legal requirements and provide full-scale assistance to Customers in their reporting obligations, KELER continuously develops its data provision activity and the related Trade Reporting system.

Having acquired the licences Approved Registered Mechanism (ARM) and Approved Publication Arrangement (APA) in 2017, KELER launched its services related to reporting and disclosure obligations defined in MiFID II./MiFIR on 3 January 2018. As a result of the above, Customers can now meet their reporting and disclosure obligations through KELER acting as ARM and APA, which in other terms means that KELER is equipped to provide partners with a full scale of services regarding MiFID II./MiFIR.

Plans and analyses regarding further development of the services offered and modernisation of the underlying IT system are underway. Opportunities for expansion of our services are offered primarily by the legal provisions in STFR (Securities Financing Transaction Regulation), scheduled for launch in 2020.

## Acquiring authorisation to issue LEI codes

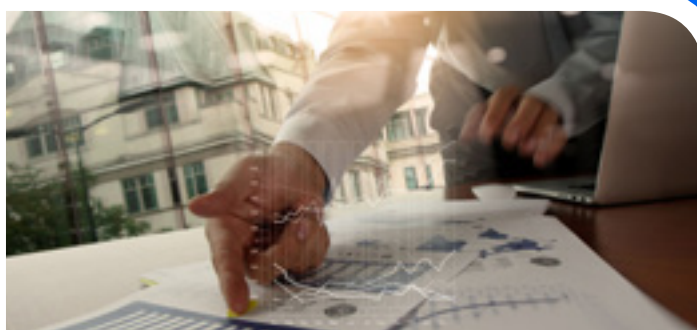
Propagation and use of LEI codes in an ever-increasing scope has been encouraged by European regulatory authorities continuously. According to the business strategy of Global Legal Entity Identifier Foundation (GLEIF), the growth of active LEI codes might even triple in the five-year period ending in 2020. Keeping that in focus, KELER is gearing up for meeting heightened demands by developing appropriate infrastructure and efficient processes as well as by obtaining LEI LOU accreditation.

A new supplier was selected during the IT system development process and complete review of the underlying software's functions and operation has been implemented and the projects have been redesigned. Based on the objectives, KELER is expected to become an accredited LEI Code issuer in 2019, subject to the various permit procedures.

## Joining the Prompt Payment System

In order to enhance the efficiency of payments in Hungary as well as to improve competitiveness of the payments market and the Hungarian economy, the National Bank of Hungary introduces the prompt payment service.

Having obtained a credit institution licence, KELER will also join Azonnali Fizetési Rendszer [Prompt Payment System; AFR] to which end the Company launched its own internal project in 2017 and joined the national project dubbed AZUR. In the course of implementation, business and IT demands were identified and the necessary developments in IT were started in 2018. Based on project plans, KELER will be able to meet the deadline for launching the service as defined by the NBH and GIRO.



<sup>2</sup> Directive 2004/39/EC (MiFID I) on provision of investment services and regulated markets and multilateral trading systems has been effective since November 2007, but, considering changes at financial markets and fast-paced technological progress, the European Commission devised in 2011 a recommendation to review the directive in the form of a new directive (MiFID II) and a decree (MiFIR). Collectively, MiFID II/MiFIR establish the legal framework to define the rules to be followed by entities providing investment services and data provision as well as by regulated markets.

<sup>3</sup> LEI codes may be issued by issuers (Local Operating Units; LOUs) licensed by the international organisation Global Legal Entity Identifier Foundation (GLEIF).

# CLIENT RELATIONS



## Client forums

Established in December 2017, T2S Hazai Nemzeti Érintetti Csoport (Hungarian National Stakeholder Group; HU-NSG) held three meetings in 2018. At the March 2018 meeting, current news of T2S were on the agenda, and KELER and the NBH presented the proposed new approach regarding the reform of corporate actions and reported on the status of harmonisation. The June 2018 meeting focused on the discussion and approval of the conceptual material embracing the responsibilities related to the reform of corporate actions as devised by KELER in cooperation with the NBH and the Budapest Stock Exchange, also involving key players in the Hungarian capital market. At the meeting in November, representatives from KELER and the NBH made a report of the current status of T2S, the T2S harmonisation and the reform of corporate action processing. Additionally, three working groups were established within HU-NSG with the main purpose of providing venues for consultations related to the reform of corporate actions. The Business Workgroup focuses on creating the database for corporate actions and managing issues that arise during formation of the rules of T2S market claim services; the Regulatory-Taxation Workgroup serves as a consultation forum for legal and taxation issues arising in the course of implementation of the reform; and the SRD Workgroup furthers the efficient implementation of Shareholder Rights Directive II (SRD) in Hungary.

KELER User Committee held a meeting in 2018 as well. The Committee reviewed and approved the amendment to KELER's Recovery Plan as well as the new version of KELER General Terms and Conditions as it became effective on the back of obtaining the CSDR licence. The Committee also decided on the establishment of the CSDR Settlement Discipline Workgroup for the purpose of devising the rules of Settlement Discipline in Hungary, also approving the proposal to make the meetings of the Committee more frequent. In accordance with the proposal, the Committee will be meeting twice a year in the future.

Between 25 and 27 June 2018, KELER participated at the conference The Network Forum in Vienna, Austria, as exhibitor and sponsor. The event hosted the most decisive players in the European depository, settlement, and post-trade business, focusing on key issues in the post-trade segment such as regulatory changes, infrastructure-related initiatives, and technology changes. The main objective of KELER's participation was to familiarise our regional link-building strategy with market players, potential partners, and Clients.



## International relations

### ECSDA

European Central Securities Depositories Association (ECSDA) is an international organisation embracing central depositories in Europe, representing 39 depositories from 35 countries currently. ECSDA was established with the objective to find common solutions and lay down common principles in order to further efficient international cross-border trade of securities and their settlement. Investors need efficient and secure cross-border settlements both in Europe and the international stage, which would allow them to lower their costs and capitalise on new opportunities.

### ANNA

Association of National Numbering Agencies (ANNA) is a global organisation present in 115 countries worldwide, and its members are international banks, depositories, stock exchanges, data providers, and regulatory organisations. The objective of the organisation is to make it easier and standardise the creation and issue of global identifiers in order to ensure that each securities product and capital market product could be identified individually and the basic data of the products could be understood. Carefully designed and maintained internal principles within the ANNA framework facilitate for the various members of the organisation to implement the general rules of ISIN numbering, modification, and cancellation in a uniform manner. The system designed to identify securities internationally is operated, maintained, and developed by ANNA through a dedicated organisation named ANNA Service Bureau.

# INFORMATION TECHNOLOGY

Similarly to previous years, the most prominent focus in IT operation in 2018 as well was directed at deliberate and planned operation as well as at ensuring high-level availability of the IT system that supports business services.

Automated monitoring capabilities have been developed further and applied in a deeper and wider scope than before, as a result of which the collective availability of KELER's systems to customers stood at 99.969 per cent in terms of the entire year. The individual duration of service outages was shortened, because alarms were now received earlier and from deeper layers of the system, therefore errors could be attended on many occasions even before customers were impacted.

In order to enhance operational security and reliability, fine-tuning of the incident management procedure was started to ensure better alignment to the fundamentals defined in ITIL. In order to improve communication with internal and external customers, an information distribution system regarding priority events – such as daily opening, daily closure, malfunctions, etc. – was implemented.

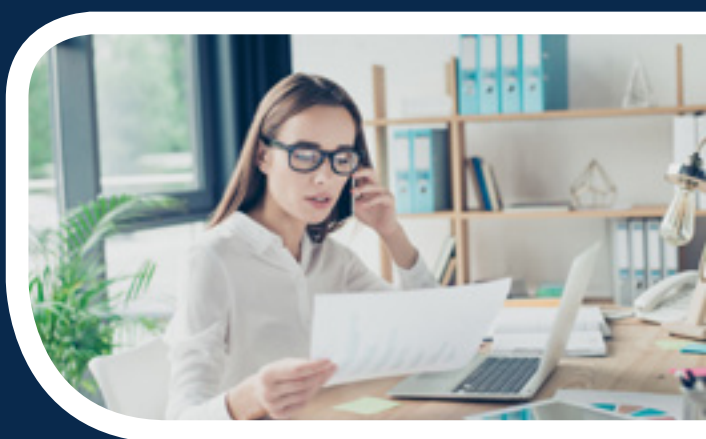
Continuing the work started in 2017, KELER Group's IT Operation directed priority focus to only allow supported infrastructure services operated in the Company's IT environment in 2018 as well. It is to be noted that no unsupported infrastructure components have been operated in KELER Group since the beginning of 2019.

In the course of a project designed to replace the infrastructure of our data centre, development of a technological environment was launched in 2018 to give a substantial boost to both computing and storage capacities, and, due to a technology that is faster than the current one by several orders of magnitude, access speed of data also increases substantially. Plans indicate that the project is expected to conclude in the first quarter of 2019. The most important aspect in the design phase of the project was to create a technology environment, by replacing five-year-old hardware, which would be able to ensure servicing of new business demands in the long term.

In 2018, the development of account management systems was embedded into KELER's organisational structure. The organisational unit tasked with IT development and coding was established, and the necessary developer environment was established by filling the headcount with IT experts of appropriate certificates. Beside source codes, know-how required to fulfil development and support responsibilities and the developer methodology used by the old supplier were also transferred. The Company's internal regulatory environment was also amended to ensure audit-ready operation also with regard to internal development. By creating the conditions outlined above, the first steps were taken to eliminate dependence from suppliers and vulnerability experienced in recent years with regard to applications performing priority functions.

Major tasks listed below were implemented by the IT Division in 2018:

- Successful implementation of SWIFT Alliance Access (SAA) ensures a comfortable user interface, fully complies with security requirements, and provides the opportunity to access other services available in the SWIFT network in the future. Compliance with the 2018 SWIFT Release was provided by the new application.
- The Data Warehouse underwent technological upgrade, using one of the most modern solutions now available at the market. Key achievement of the project is a shorter load time, reducing the previous daily load time of more than 10 hours to less than 2 hours.
- KELER seeks to establish a component-based, flexible IT architecture that can respond swiftly to market demands, therefore an architecture framework is developed to support developments that are based on JAVA Web applications. The design process and the first milestone of the developments were attained in 2018.
- KELER also began preparations to join AFR (Prompt Payment System). A solution is being devised to ensure compliance that will go online as the first component of the new development framework intended to be used in the future.
- Recent years have been all about the project (SMP Programme) aimed at replacing KELER's account management system. Learning the lessons from the unsuccessful outcome of the programme, KELER launched a project, KSZP, to upgrade its services. The IT foundations of this solutions will not be provided by a technology and architecture dictated by an external supplier that sells boxed products, but a widely used technology built on JAVA framework that is adjustable and scalable to meet the technology demands of the time and supports modular structure. In line with the principles outlined above, an architecture concept was devised in the specifications that ensures that the individual business demands may be separated into modules and stacked, at the same time preventing the success of the development being dependant on a single supplier.
- Implementation of the new authorisation management system (IDMátrix) and the resulting rationalisation of authorisation processes and reviews ensure compliance to security audits in the future along the two main principles of "least privilege" and "segregation of duties".



# RISK MANAGEMENT

## Current matters in risk management

Pursuant to provisions of CSDR, KELER has to reacquire a licence for central depository and auxiliary banking services. KELER submitted the licence application to the competent authority on 29 September 2017 as per CSDR regulations, and the licensing procedure is still underway. In order to ensure compliance, KELER amended its risk management methodology and internal regulations at several sections and have implemented them.

Based on Paragraph 1, Article 48 of RTS No. 2017/392 to complement CSDR, a Risk Management Committee was established by KELER in 2017. Committee is tasked with providing KELER's Executive Board and Managing Board with information on the Company's current and future comprehensive risk tolerance and risk strategy. As part of the information, the Committee may formulate opinions and make proposal, and is also obliged to monitor and review, if necessary, the interim risk management reports prepared for the Committee. The inaugural session of the Committee was held on 7 July 2017, and four meetings have been held since.

KELER also reviewed its recovery plan in 2018, having amended it to ensure full compliance with CSDR requirements. The plan has been submitted to the supervisory authority.

At the end of 2018, the establishment of the system to support KELER's day-to-day risk management responsibilities has been started. The objective of the system development is to relieve some of the daily manual work and support the efficiency of the executive information system.

KELER shall review risk exposures as necessary—but at least annually—and present the changes in its risk profile in detailed reports to the Managing Board.

## Risk management strategy

Effective as of 1 August 2013, KELER has outsourced risk management responsibilities to KELER KSZF. Accountability and decision-making remained with KELER in the person of Head of Risk Management, but the day-to-day risk management tasks are fulfilled by KELER KSZF in a separate workflow.

KELER's risk management strategy is always based on the business strategy in effect. It is to be noted that KELER's strategy has been devised along basically conservative and prudent risk management principles. Methodologies, processes, and built-in controls have been designed accordingly. Beside the shareholders and the Managing Board – acting as an executive body authorised with steering functions – several committees (e.g. Risk Management Committee, Users Committee) are also operated in KELER that are responsible for monitoring certain parts of the risk exposure. Additionally, the National Bank of Hungary – in its function as overseeing authority – review KELER's operation biennially and also occasionally in its function as supervisory authority. KELER is a basically transparent, low-risk infrastructure.

## Credit and partner risks

As opposed to a classic commercial bank, investment risks in the case of KELER are not considered complex or decisive. The treasury portfolio largely consists of Hungarian government securities, complemented mostly by interbank disbursements and repo transactions. On the assets side, the shareholding in KELER KSZF is to be highlighted among risk exposures in terms of its order of magnitude.

KELER's key partners include treasury partners (credit institutions in Hungary) in addition to foreign depository links and intermediary institutions.

As part of the usual ratings, treasury partners, depository links, and intermediary institutions were rated in 2018 as well on the basis of data available, and a proposal was prepared for the Assets-Liabilities Committee regarding counterparty risks. No major changes occurred in the scope of treasury partners, or the type and magnitude of the transactions established.

KELER is less active at the foreign exchange market, participating in forex conversion transactions only by customer request and in low amounts, at that.

Management and aggregation of partner risks is carried out in line with requirements on the level of customer groups in all relevant cases. Noteworthy among risk management instruments is the preference of repo deals over depo transactions and application and daily monitoring of a counterparty limit system based on the aforementioned partner rating by the Risk Management Department. Similarly to partner risks, the daily monitoring of country risk limits is also carried out.





## Market risks

Risks to forint yields are the most significant for KELER among market risks. In the daily calculations, interest risks related to the trading book and the banking book as well as KELER's own exchange rate risks are reported. In addition to daily monitoring of the asset portfolio, quarterly stress calculations are prepared by Risk Management Department to the extent defined by law. The size of impairment calculated with the stress parameters continues to remain below the limit stipulated by law. The VaR ratio of the government securities portfolio is calculated every other day with both stressed and historical volatility.

KELER's special activity, particularly ensuring uninterrupted ability to execute settlements, makes it necessary for the Company to have liquid assets at all times that may be mobilised swiftly. Partly stemming from this requirement, the scope of assets to be held by the central depository is strictly regulated even by laws. In addition to legal obligations, KELER seeks to select financial instruments to keep that could be sold swiftly when necessary and also to use them to create daily liquidity. Measuring, monitoring, and managing liquidity risks are carried out daily when the daily risk parameters of KELER's banking and trading book portfolios are defined.



## Operational risks

The objective of the risk management system devised by Risk Management Department is to make KELER Group continuously aware of its own risks exposures and monitor and mitigate them whenever necessary. Accordingly, the Company collects past impairment data, making expert estimates, as well as manages stress events in a dedicated manner that seldom occur but cause major damages.

The reason for group regulation lies in the fact that the Basel directive and CSDR define the necessity of managing operational risks on the basis of internal methodology only in respect of credit institutions and central depositories, but in accordance with EMIR requirements KELER KSZF is also obliged to manage these risks. Due to a high degree of operation interconnectivity risk management is implemented along the same principles – and on a voluntary basis – for both KELER and KELER KSZF.

The Operational Risk Management Committee met quarterly in 2018 as well, discussing impairment events that occurred as well as current operational risks. In case it was necessary and possible, risk mitigation and prevention measures were decided, subsequently monitoring their implementation.

KELER and KELER KSZF Managing Boards are briefed on the annual development of operational risks annually.

## Risks related to business management, liquidation, and restructuring

On the back of its major role played in the system of money and capital markets, KELER needs to be vigilant of additional risks beyond the ones outlined above.

On the one hand, said risks are related to general business management and are quantified during the course of business planning. On the other hand, they are supposed to mitigate losses to be incurred in case KELER should fall under liquidation or undergo major restructuring. Plans regarding restructuring and liquidation are detailed in KELER's Recovery Plan, taking CSDR requirements into consideration.

## HUMAN RESOURCES POLICY

In terms of human resources policy, KELER focused on meeting legal compliance as well as ensuring, identifying, and preparing the human resources demand of the projects to be implemented by KELER in addition to the day-to-day operation.

The Company's headcount was 170 on 31 December 2018.

Staffing new positions was a priority activity for Human Resources in 2018. Recruiting and integrating employees with appropriate professional training remained a top priority in the selection process.

The Managing Board operated with six employees on 2018, unchanged from the previous year.

KELER's new Organisational and Operational Regulations was approved on 18 July 2018. As a result of the amendments, Banking Operation and Product Development Directorate, Finance Directorate, Strategy and Client Relations Directorate as well as the Chief Executive Officer's Directorate were reorganised as follows:

- Product Development Department was transferred from Banking Operation and Product Development Directorate to Strategy and Client Relations Directorate, and Process Management Department was integrated into Chief Executive Officer's Directorate and the directorate was renamed Banking Operation Directorate.
- Data Asset Management Department as well as Treasury were separated from Finance Directorate and subsequently integrated into Strategy and Client Relations Directorate.
- Sales Department, Client Relations Department, and Institutional Relations Department were transferred to

the existing Deputy CEO function in Strategy and Client Relations Directorate, while Marketing was transferred under the CEO's direct control.

- Legal Department and Human Resources Management Department were transferred to Chief Executive Officer's Directorate.
- Two new organisational units were established within IT Directorate, notably Application Programming Group and Architecture Analysis Department.
- As part of Chief Executive Officer's Directorate, a new organisational unit—CEO's Cabinet—was established with the primary objective of establishing KELER's one-stop link to regulators, supervisors, and shareholders.

The purposes of those changes are defined in the Organisational and Operational Regulations in detail.

Implementation of the human resources records system NEXON was launched in 2018 to go live in January 2019. The system supports HR administration, facilitates quick access of personnel data, and easy-to-use presentation of HR reports.

Human resources policy continues to strive to adapt flexibly to the demands of this specific area in the future, ensuring the necessary professional mix and providing education for employees or, if necessary, training for them.

Supporting the integration of new recruits is a priority responsibility of the area along with motivating and retaining existing workforce, ensuring appropriate human capital to further successful implementation of the Company's projects.



## INTERNAL AUDIT



Internal Audit carried out its responsibilities in 2018 as well in accordance with its annual work plan based on risk assessment and risk analysis – as approved by the Supervisory Board – and also in line with the operational regulations of the internal audit system in effect. In the definition of audit tasks, the audit of the operation of risk-bearing, high-priority activities, and controls constituted an essential aspect. Mandatory review activity of new or amended regulatory documents was also carried out by the internal audit organisation.

In 2018, nine audits were carried out at KELER with focus on IT banking security and 16 others that focused outside the scope of IT. Within the audits, 12 topical, two follow-up and 11 targeted audits were implemented.

Topical audits involved the areas listed below:

- Depository services for physical securities
- Remuneration policy
- Central securities bookkeeping
- Compliance activity
- Reporting services (APA, ARM)
- Internal evaluation processes for capital adequacy and liquidity compliance
- Fee calculation
- Disclosures
- Authorisation management
- Project management
- Outsourcing of IT activities
- Putting IT systems into operation

As part of the targeted audits, management of customers' financial assets and cash assets, appropriateness of deductions, assignments, implementation of disaster prevention tests, process of incident management, data provisioning related to IT incidents, GDPR compliance, and depositing of source codes were reviewed.

As part of the follow-up audits, the measures dictated by the comprehensive supervisory audits carried out by the National Bank of Hungary as well as the procurement process were scrutinised in a follow-up approach.

The audits were targeted particularly at compliance with stipulations laid down in laws and internal regulations and directives; operability of controls; enforcement of security aspects, with special view to carrying out reviews regarding the implementation of measures and recommendations deemed necessary on the back of deficiencies identified in previous audits.

Beside the aforementioned, KELER KSZF was subject to 9 additional audits by Internal Audit on the basis of outsourcing agreements.



## SECURITY MANAGEMENT

In 2018, Security Management devised its new security strategy, which lays down its objectives and action plan on a three-year horizon. When designing the strategy, new challenges and trends in cyber security strategy were taken into consideration along with business needs. Consequently, Security Management seeks to appear also in a supporting role for business areas rather than just being a prevention unit. Along the strategy, continuation of a previously launched consolidation activity and implementation of new security measures were introduced in order to ensure more up-to-date and enhanced customer experience and solutions that offer a higher degree of security.

- Starting early 2018, build-up of a security team with a higher headcount was started, as a result of which new competencies will be established. Phase one of the from-scratch redesign and implementation of the methodology was also attained.
- In the course of 2018, a full-scale risk analysis was carried out, which resulted in a higher level of business impact analysis, as well. Using the results, availability parameters expected on the basis of business processes and constituting the basis of BCP processes were updated.
- As in every year, BCP and DRP plans for supporting IT systems, to be applied in the event when critical business processes are disrupted, were updated in 2018 as well. Testing of our fully-fledged reserve site was carried out successfully last year too, and updated BCP tests were also run by business areas along with a full-scale switchover between the two data centres, which constitutes the basis of DRP processes.
- Security Management tested employees' security consciousness and approach on numerous occasions on a case-by-case basis, and also established an annual edu-

cation system, which provides appropriate training even in case of fluctuation in the employee pool. Mandatory security education for all new recruits was implemented over and beyond the annual mandatory security training.

- The entire implementation of the SIEM system, launched in 2017, was concluded in 2018.
- Due to making use of additional features in the secure web content filter and mail system, a DLP system was implemented successfully, reaching another level of data protection.
- Another level was reached in the area of mobile security as well, at the same time achieving customer satisfaction by making new services accessible via mobile devices with a higher level of security.
- For the purpose of risk-proportionate protection and compliance with external expectations, information security controls are regularly reviewed. As part of that process, vulnerability tests were carried out throughout the year continuously.
- KELER has been designated as National Critical System Component. As a consequence, probes were carried out by Országos Katasztrófavédelem [National Department for Disaster Management] in respect of which no negative feedback was issued regarding KELER Group.
- KELER's IDM system was replaced in 2018 with review of authorisation processes and implantation of the management of job-related authorisations. As a result, a much more transparent and faster authorisation management process has been available to the entire corporate group.

In the course of the year, all protracted, unresolved and new internal audit deficiencies were concluded by the security team.

## ENVIRONMENT PROTECTION



Due to its activity, KELER Group's environmental responsibility is not substantial; the Company is unlikely to cause harm to the environment. KELER Group does not use hazardous materials that require licence.

It is the objective of KELER Group's own Green Office Programme to ensure long-term embeddedness of environment-conscious approach into our corporate culture and to reduce group-wide energy and paper consumption and establish a system of selective waste collection. The corporate group pursues the principle of responsible thinking, prioritising to establish a healthy workplace.

KELER Group has been headquartered in R70 Office Complex in Budapest (70-72 Rákóczi Road) since April 2014. Key aspects in the selection process was to ensure a liveable and enjoyable work environment for our employees while using environment-conscious equipment and solutions. The principle that office areas should be able to continue and operate the Green Office Programme, which had been functioning well, was also observed.

Involving experts, the status of UPS devices and the Diesel generator operated in the R70 Office Headquarters was assessed. According to their report, our equipment is operating in an orderly fashion, but considerable capacities remain unused. Accordingly, replacement of the equipment has been decided in order to optimise energy consumption and costs.

Additionally, reduced paper consumption is ensured by continuous supervision of the printer park and data analyses.



## REPORT OF THE SUPERVISORY BOARD OF KELER LTD.

### REPORT OF THE SUPERVISORY BOARD OF KELER LTD. ON THE SEPARATE FINANCIAL STATEMENTS PREPARED BASED ON IFRS ACCORDING TO ACT C OF 2000 ON ACCOUNTING

In 2018, the Supervisory Board had 6 meetings and adopted resolutions and decisions without a meeting on 3 occasions.

Following the previous practice, the annual internal audit work plan for 2018 was prepared as a result of a risk assessment and risk analysis process, which ensures that the audits conducted by the Internal Audit Organisation always focus on the activities and processes that include the largest risks.

The Supervisory Board approved the internal audit work plan of the Company and regularly monitored its implementation at its meetings during the year.

The Supervisory Board received information on the agenda items discussed at the meetings of the Board of Directors of KELER Ltd.

In 2018, the Internal Audit Organisation focused on the following topics in relation to the compliance of KELER Ltd. with the law, authority and internal regulations:

1. Internal capital and liquidity adequacy assessment process
2. Remuneration policy
3. Haircut adequacy
4. Securities inventory, review of the depository activity
5. Follow-up audit of the measures required during the MNB (Central Bank of Hungary) comprehensive audit of 2016-2017
6. Quarterly review of the management of clients' financial instruments and cash
7. Central securities issue
8. Payment authorisation
9. Procurement procedures
10. Compliance activity
11. Reporting services (APA, ARM)
12. Fee calculation, invoicing
13. Disclosures

The Internal Audit Organisation conducted the following IT and security audits:

1. Audit of the IT data supply
2. Annual audit of the business continuity and alternative venue tests
3. Audit of the outsourced IT activities
4. Project management
5. Incident management
6. Audit of GDPR compliance
7. Audit of the authorisation processes
8. Audit of the testing and going live process of IT developments
9. Audit of licence management and depositing of source codes

The Supervisory Board discussed and approved the completed reports at the subsequent meeting. The internal audit reports and related action plans included the deficiencies identified during the audit, the tasks proposed for their elimination, the appointed responsible officers and also set a deadline for completion.

The Supervisory Board of KELER Ltd. continuously monitored the performance of the measures required as a result of internal audit reports on the basis of the subsequent reports.

At its meetings the Supervisory Board regularly discussed the periodical reports on the business activities and financial management of KELER Ltd.

In order to regularly monitor the risks affecting the financial management of KELER Ltd., at its meetings the Supervisory Board received information for the measurement of operational risks provided by the Internal Audit Organisation on a quarterly basis and also received regularly the minutes of the meetings of the Operational Risk Committee for information purposes.

Within the framework of a report, it was also informed of the activities of the Compliance Officer in 2017 and the work plan of the Compliance Officer for 2018.

Dated: Budapest, 14 May 2019

It approved the Independent Auditor's report on the Remuneration Policy of KELER Ltd. and the amendment of the Code of Operation of the Internal Audit System of KELER Ltd. In addition, on the basis of the approved concept, it set the performance management targets for the Internal Audit Organisation.

On the basis of the Internal Audit Reports and other documents discussed by the Supervisory Board, the Supervisory Board concludes that the processes of operation of KELER Ltd. are in general sufficiently regulated, the financial management is well-structured and the Board of Directors and the management of the Company make regular efforts to maintain the high-level secure operation.

The Supervisory Board is convinced that KELER Ltd. is in possession of all human resources and other tangible conditions that are required to successfully overcome the challenges of the forthcoming years.

The capital structure and capitalisation of KELER Ltd. are adequate, which gives a great deal of security to the operators of the money and capital market as well as energy market who use the services of the Company. We are also convinced that KELER Ltd. is in possession of an infrastructure required for high-standard and good-quality services.

The Supervisory Board has concluded that the management of the Company managed the financial resources of their respective companies as expected. The Supervisory Board reviewed the annual financial statement of the Company prepared according to IFRS and the auditor's report. On that basis, the Supervisory Board proposes the General Meeting to approve the separate annual report of KELER Ltd. prepared for 2018 with HUF 116,587 million total assets/liability balance sheet total, HUF 1,684 million profit before tax, HUF 1,450 million profit after tax (profit for the current year) and total HUF 1,469 million total comprehensive income.

**Lajos Bartha**

**Chairman of the Supervisory Board**

# INDEPENDENT AUDITOR'S REPORT



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Registered by the Capital Court of Registration  
Company Registration Number: 01-09-071057

*Translation of the Hungarian original*

## INDEPENDENT AUDITOR'S REPORT

To the Shareholders of KELER Ltd.

### *Opinion*

The summary financial statements, which comprise the summary statement of financial positions as at December 31, 2018, the summary statement of comprehensive income, the summary statement of changes in equity and summary statement of cash flows for the year then ended that are presented on pages 34-38 in the annual report for 2018 of KELER Ltd. ("Company"), are derived from the audited separate financial statements of KELER Ltd. for the year ended December 31, 2018.

In our opinion, the accompanying summary financial statements are consistent in all material respects with the separate financial statements for 2018.

### *Summary Financial Statements*

The summary financial statements do not contain all the disclosures required by Act C of 2000 on Accounting ("Accounting Act") effective in Hungary. Reading the summary financial statements and auditor's report on those, therefore, is not a substitute for reading the audited separate financial statements of Company and auditor's report on those. The summary financial statements and the audited separate financial statements for 2018 do not reflect the effects of events that occurred subsequent to the date of our report on the audited separate financial statements.

### *The Audited Separate Financial Statements and Our Report Thereon*

We expressed an unmodified audit opinion on the audited separate financial statements in our report dated May 13, 2019. The auditor's report on audited separate financial statements also contains the key audit matters identified during the audit of separate financial statements for 2018.

### *Responsibilities of Management and Those Charged with Governance for the Summary Financial Statements*

Management is responsible for the preparation of a summary financial statements in the annual report for 2018 in accordance with relevant information included by audited separate financial statements.



# INDEPENDENT AUDITOR'S REPORT

## *The Auditor's Responsibilities for the Audit of the Summary Financial Statements*

Our responsibility is to express an opinion on whether the summary financial statements are consistent, in all material respects, with the audited separate financial statements for 2018 based on our procedures, which were conducted in accordance with National Standard on Auditing "810 Engagements to Report on Summary Financial Statements".

Budapest, July 31, 2019

*The original Hungarian version has been signed*

Nagyváradiné Szépfalvi Zsuzsanna  
on behalf of Deloitte Auditing and Consulting Ltd.  
and as a statutory registered auditor

Deloitte Auditing and Consulting Ltd.  
1068 Budapest, Dózsa György str. 84/C.  
Registration number: 000083

Registration number of statutory registered auditor: 005313

# STATEMENT OF FINANCIAL POSITION

STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED 31 DECEMBER 2018 (ALL AMOUNTS IN MHUF)

	31.12.2018	31.12.2017
Cash and cash equivalents	10 152	10 959
Placements with other banks	50 045	41 300
Financial Assets measured at amortized cost	14 232	0
Debt instruments measured at fair value through other comprehensive income	32 386	0
Financial Assets measured at amortized cost	0	13 451
Financial Assets measured at amortized cost	0	28 775
Income tax receivable	148	210
Deferred tax assets	0	97
Receivables relating to depository activities	650	712
Other receivables	797	385
Shares	6 546	4 546
Intangible assets	849	515
Property, plant and equipment	782	284
<b>TOTAL ASSETS</b>	<b>116 587</b>	<b>101 234</b>
Deposits from customers	79 368	73 407
Income tax payable	106	94
Deferred tax liability	0	0
Trade payables	359	227
Provisions	0	786
Repurchase liability	9 338	0
Accruals and other liabilities	359	435
<b>TOTAL LIABILITIES</b>	<b>89 530</b>	<b>74 949</b>
Share capital	4 500	4 500
Retained earnings	22 263	21 663
Statutory reserves	267	122
Fair value through other comprehensive income debt instruments revaluations reserve	27	0
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>27 057</b>	<b>26 285</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>116 587</b>	<b>101 234</b>

# STATEMENT OF COMPREHENSIVE INCOME

STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2018 (ALL AMOUNTS IN MHUF)

	01.01.2018- 31.12.2018	01.01.2017- 31.12.2017
<b>Income from clearing and depository activity</b>	<b>4 856</b>	<b>4 538</b>
Income from infrastrucutre	294	270
Interest incomes	908	1 017
Interest expenses	-219	-110
<b>NET INTEREST INCOME</b>	<b>689</b>	<b>907</b>
Gains on securities, net	-3	297
Expected credit loss (ECL)	-2	0
<b>Income from the principal activity</b>	<b>5 834</b>	<b>6 012</b>
Bank fees, commissions and similar items	-217	-198
Personnel expenses	-2 385	-2 051
Depreciation and amortization	-425	-421
Services and support for infrastructure	-725	-764
Professional fees	-495	-378
Telecommunication services	-67	-74
Insurance fees	-10	-10
Materials, supplies	-39	-43
Rental fees	-109	-99
Marketing fees	-8	-9
Education	-19	-23
Taxes and levies	-194	-325
Operational services	-198	-200
Fees and levies paid to regulatory bodies	-26	-78
Legal fees	-53	-82
Expenses and income related to oneours contract	786	-786
Other sundry operational expenses	-1	-6
<b>Operating expenses</b>	<b>-4 185</b>	<b>-5 547</b>
Impairment of non-financial assets	-70	-3 342
Other income and expenses	105	21
<b>Operating income</b>	<b>1 684</b>	<b>-2 856</b>
Income taxes	-234	-91
<b>NET INCOME FOR THE PERIOD</b>	<b>1 450</b>	<b>-2 947</b>
Other comprehensive income:	0	0
Remeasurement gains/losses of available for sale financial instruments	18	0
Income tax of other comprehensive income	1	0
<b>OTHER COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>19</b>	<b>0</b>
Of which later to be reclassified to net income	19	0
Of which later not to be reclassified to net income	0	0
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>	<b>1 469</b>	<b>-2 947</b>

# STATEMENT OF CHANGES IN EQUITY

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2018 (ALL AMOUNTS IN MHUF)

Items	Share Capital	Fair value through other comprehensive income debt instruments revaluation reserve	Retained Earnings	Statutory reserves	Total
Balance as of 1 January 2017	4 500	0	22 137	2 596	29 233
Total comprehensive income for the year		0	-2 947	0	-2 947
Use of the general reserve		0	2 474	-2 474	0
<b>Balance as of 31 December 2017</b>	<b>4 500</b>	<b>0</b>	<b>21 664</b>	<b>122</b>	<b>26 286</b>
Balance as of 1 January 2018	4 500	0	21 664	122	26 286
Effects of the transition to IFRS9 (as a change in accounting policy, see IFRS1. E1-2)		8	151	0	159
<b>Balance as of 1 January 2018 (after transition to IFRS9)</b>	<b>4 500</b>	<b>8</b>	<b>21 815</b>	<b>122</b>	<b>26 445</b>
Total comprehensive income for the year		19	1 450	0	1 469
Determined dividend 30 May 2018		0	-857	0	-857
Creation of required reserve		0	-145	145	0
<b>Balance as of 31 December 2018</b>	<b>4 500</b>	<b>27</b>	<b>22 263</b>	<b>267</b>	<b>27 057</b>

# STATEMENT OF CASH FLOWS

STATEMENTS OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2018 (ALL AMOUNTS IN MHUF)

CASH FLOW FROM OPERATING ACTIVITIES	01.01.2018- 31.12.2018	01.01.2017- 31.12.2017
Profit before taxes	1 684	-2 856
Interest expense	219	110
	1 903	-2 746
<b>Non cash items - adjustments</b>		
Interest income	-908	-1 017
Depreciation and amortization charged	425	421
Adjustment due to incentive on lease	0	0
Recognition of provision	-786	786
Unrealized gain on cash and cash equivalents	0	0
Impairment of intangible assets	70	3 342
Gain on disposing property plant and equipment	-4	-7
Remeasurement of FVTPL financial assets	0	0
Changes in the guarantee fund liability	0	0
<b>Operating cash-flow before working capital adjustments</b>	<b>700</b>	<b>779</b>
Changes in the net balance of gas market transactions, net	0	0
Changes of the deposits of clients, net (loro accounts)	5 961	-4 610
Changes in the receivables from balance with other clearing houses	0	0
Decrease/(increase) in trade and other receivables	352	252
Increase/(decrease) in trade and other payables	68	-294
Cash proceeds/cash paid from financial instruments	4 661	6 017
Net (increase) / decrease in placements with other banks, net of allowance for losses	-8 745	-20 068
	2 999	-17 923
Interest paid	-237	-138
Taxes paid (-/+)	-75	-265
<b>Cash generated/(used) in operation</b>	<b>2 687</b>	<b>-18 326</b>



# STATEMENT OF CASH FLOWS

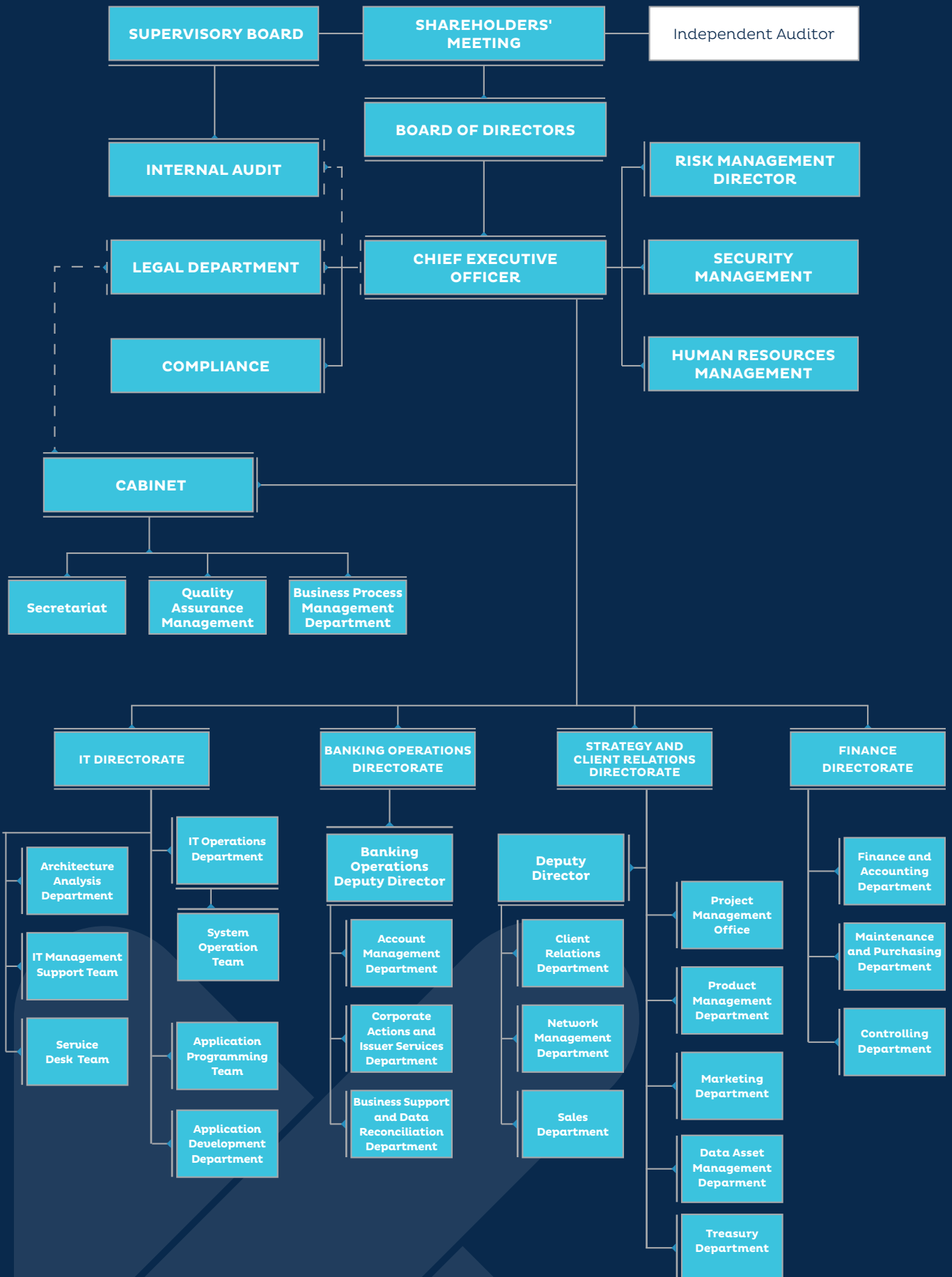
STATEMENTS OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2018 (ALL AMOUNTS IN MHUF)

CASH FLOW FROM INVESTING ACTIVITIES	01.01.2018- 31.12.2018	01.01.2017- 31.12.2017
Acquisition of property, plant and equipment	-604	-67
Acquisition of intangible asset	-767	-759
Capital contribution in subsidiary	-2 000	0
Cash proceeds from disposal of property plant and equipment	11	13
Cash proceeds from/cash spent on financial asset held for investing purposes	0	0
Proceeds from interest	971	1 017
Passing items	-265	0
<b>Cash generated/(used) from investing activity</b>	<b>-2 654</b>	<b>205</b>
CASH FLOW FROM FINANCING ACTIVITIES	01.01.2018- 31.12.2018	01.01.2017- 31.12.2017
Dividend payment	-857	0
<b>Cash generated/(used) from/in financing activity</b>	<b>-857</b>	<b>0</b>
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>-824</b>	<b>-18 122</b>
Opening cash and cash equivalents	10 959	29 074
Foreign exchange rate difference on cash and equivalents	0	0
Closing cash and cash equivalents	10 152	10 959
Unrealized gain on cash and cash equivalents	17	7
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>-824</b>	<b>-18 122</b>



# ORGANIZATIONAL STRUCTURE

(EFFECTIVE AS OF 30 DECEMBER 2018)



# MANAGEMENT



**ZSOLT DEMKÓ-SZEKERES**  
Deputy Chief Executive Officer and  
Director of Operations



**ATTILA MÓNUS**  
Chief Executive Officer



**RICHÁRD KREUTZER**  
Director of Finance



**JÁNOS TÓTH**  
Director of IT

## Permanent invited attendees of the Management's Meetings



**KATALIN BÓTA**  
Head of Strategy and Client  
Relations



**KÁROLY MÁTRAI**  
CEO of the Company's  
subsidiary (KELER KSZF Zrt.)

## MANAGEMENT IN 2018

**Director of Operations**  
**Sándor Szalai**  
Deputy Chief Executive Officer  
and Director of Operations  
until 15 February 2019

**Zsolt Demkó-Szekeres**  
Deputy Chief Executive Officer  
and Director of Operations  
from 16 February

**Director of Finance**  
**András Bojársky**  
until 18 June 2018

**Richárd Kreutzer**  
from 19 June 2018

**Director of Risk Management**  
**Károly Mátrai**  
until 28 February 2019

**Director of Strategy  
and Client Relations**  
**Gergely Ekler**  
until 31 May 2018

**András Bojársky**  
between 19 June 2018  
and 28 February 2019



# GENERAL INFORMATION

EFFECTIVE BETWEEN 1 JANUARY 2018 AND 31 DECEMBER 2018

## Ownership structure

Shareholders	Financial contribution	Ownership ratio
Central Bank of Hungary	HUF 2 400 000 000	53.33%
Budapest Stock Exchange	HUF 2 100 000 000	46.67%
<b>TOTAL</b>	<b>HUF 4 500 000 000</b>	<b>100.00%</b>

### BOARD OF DIRECTORS 2018

#### Chairman:

Zsolt Selmeczi-Kovács dr.

#### Members of the Board of Directors:

Csaba Kornél Balogh

Márton Nagy

Richárd Végh

Attila Mónus

Zsolt Demkó-Szekeres  
(membership started on 16 February 2019)

Sándor Szalai  
(membership ended on 15 February 2019)

### SUPERVISORY BOARD

#### Chairman:

Lajos Bartha

#### Members of the Supervisory Board:

Klára Pintér

Lóránt Varga

Attila Varga-Balázs

Miklós Kardos (membership ended on 31 January 2018)

### CONTACT

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Home page: [www.keler.hu](http://www.keler.hu)

#### Central Client Service:

Monday to Friday from 9.00 until 15.00

Phone: +36 1 483 6240

Mobile: + 36 30 481 4331

E-mail: [ugyfelszolgalat@keler.hu](mailto:ugyfelszolgalat@keler.hu)

#### Service Desk:

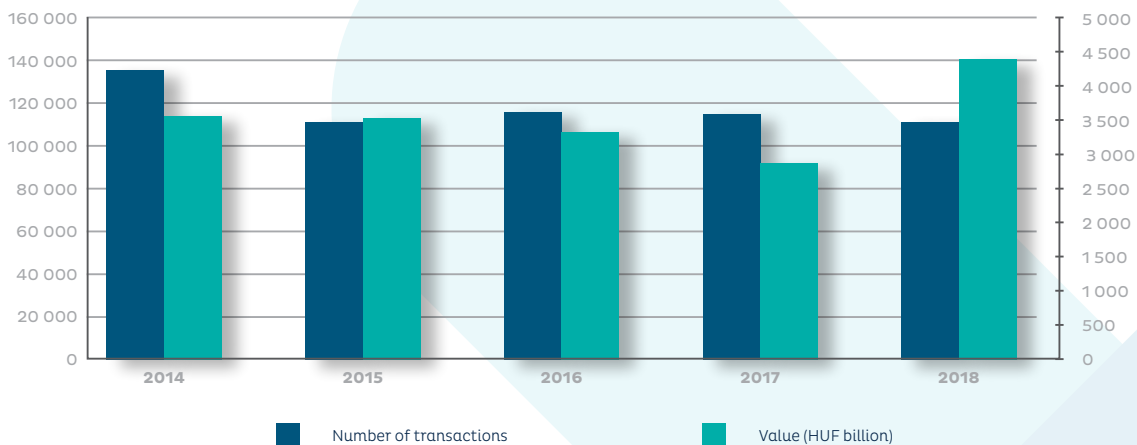
Monday to Friday from 7.00 until 20.00

Phone: +36 1 483 6228

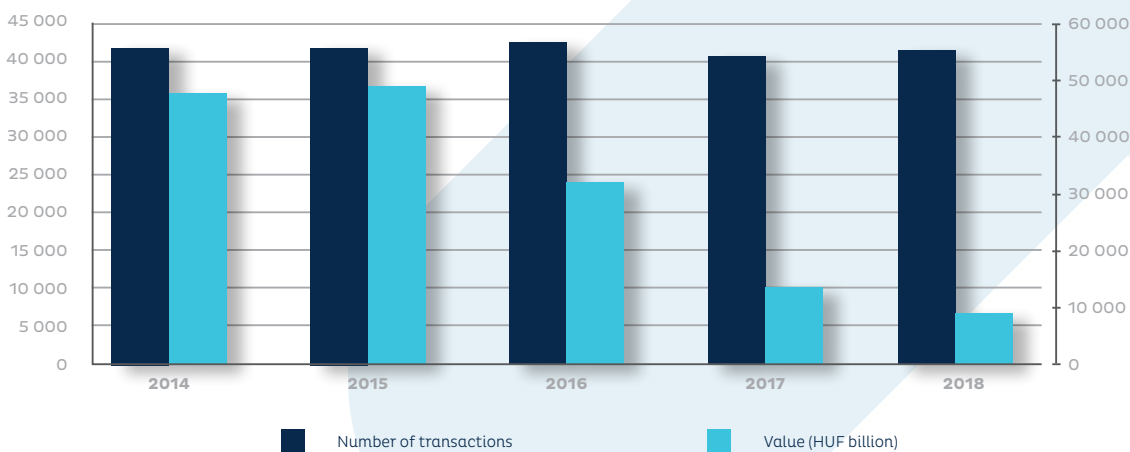
Phone: +36 1 483 6120

## OTHER STATISTICS

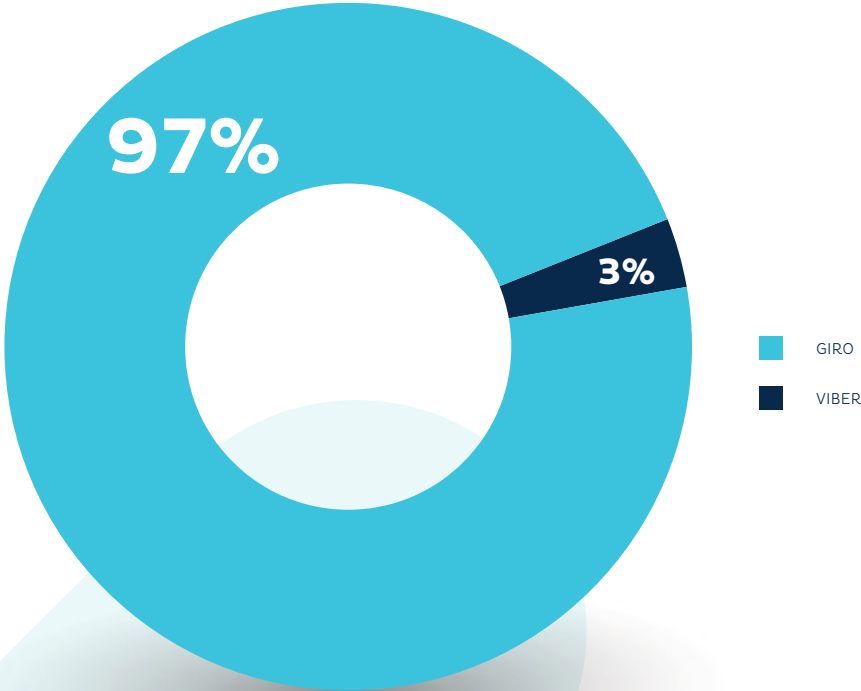
**Outgoing and incoming payments from/to client cash accounts with KELER, 2014-2018**



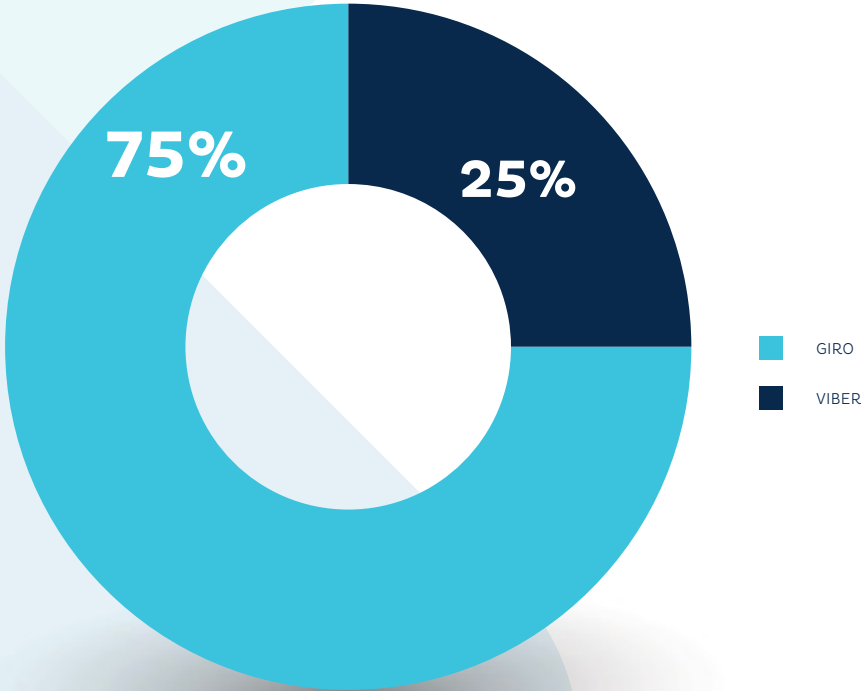
**In-house credits and debits on client cash accounts with KELER, 2014-2018**



### Number of GIRO and VIBER transactions, 2018



### GIRO-VIBER payments at value, 2018



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