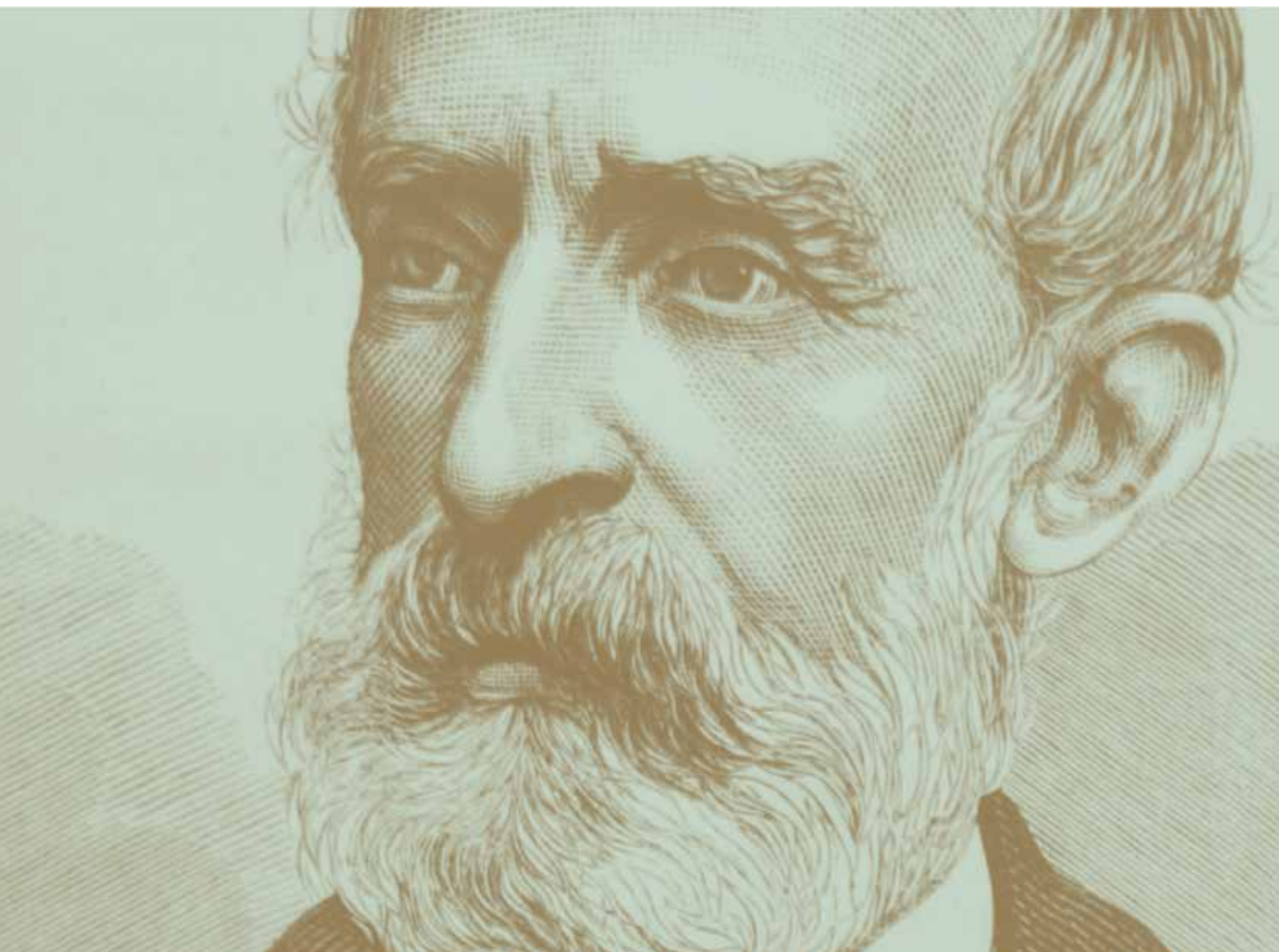




# STRATEGIC REPORT



*2017*



*“And you my kind sirs, members of the two trade bodies, heads of commerce, industry and financial institutions, farmers, industrialists, tradesmen and brokers, I once again encourage you to visit the stock exchange regularly and diligently, and to ensure health and vigour to our institution by concluding your business deals at the stock exchange.”*

**Baron Frigyes Kochmeister**

First Chairman of the Budapest Commodity and Stock Exchange

## STRATEGIC REPORT 2017

Managing publisher: Balázs Bozsik, Marketing and PR Director

Published by: Budapest Stock Exchange Ltd.

H-1054 Budapest, Szabadság tér 7

[www.bet.hu](http://www.bet.hu)



A key player in the Hungarian money and capital markets, the Budapest Stock Exchange (BSE) provides economic operators with access to financial resources and offers investors a broad range of investment instruments. BSE's mission is to create a Hungarian economy based on stable and independent funding and to continuously develop the financial culture of the Hungarian population and corporate sector.

As the successor to the first Hungarian stock exchange, founded more than 150 years ago in 1864, the Budapest Stock Exchange plays a pivotal role both in Hungary's and the Central Eastern European region's capital markets. As a result of the dynamic growth it achieved after its re-establishment in 1990, BSE now provides the highest level of service, in compliance with the standards of developed markets, to security issuers, traders and investors from around the world.

In the last two and a half decades, Budapest Stock Exchange evolved into the most innovative market in the region: it was the first to introduce, among other activities, options and futures trading. The exchange pioneered the listing of exchange-traded funds in the region and was among the first to use central counterparty services, an essential component of the safety of settlements, in collaboration with KELER.

Today, BSE offers investors the broadest range of products in the region. Alongside equities and debt securities, which are the traditionally the most popular, the range also includes investment funds and structured products, as well as international equities. Its derivatives market encompasses not only futures and options trading, but also a foreign currency market with the highest trading volume in Europe and a commodities market which is unique in the region.

On 20 November 2015, the National Bank of Hungary concluded a purchase agreement with the former owners of the Budapest Stock Exchange, the Austrian CEESEG AG and Österreichische Kontrollbank AG. As a result of this transaction, NBH became the qualified majority shareholder in BSE. Brought under national ownership, BSE was required by its new owner to formulate a five-year strategy for 2016-2020 along the lines of capital market development objectives in order to set the priorities that will determine the direction of stock market development for years to come.

The purpose of the Strategic Report is to present, on an annual basis, what the BSE has accomplished from its five-year strategic plan for the 2016-2020 period. At the same time, the publication also provides an outlook on the undertakings of coming years as well as its ongoing tasks.

In addition to this Strategic Report and after adoption by the general meeting, BSE will naturally also publish its annual report presenting the business management activities of the Stock Exchange.

Prepared by:

Balázs Bozsik, Dr. Mihály Forrai, Miklós Kardos, Dániel Körmöczi, István Máté-Tóth, Márton Paulovits, Dr. Rita Szalay, Richárd Végh



## CONTENTS

<b>BSE CAPITAL MARKET DEVELOPMENT STRATEGY 2016–2020</b>	<b>6</b>
<b>EXECUTIVE SUMMARY – THE YEAR OF NETWORKING</b>	<b>10</b>
<b>COOPERATION WITH THE GOVERNMENT AND THE MARKET</b>	<b>13</b>
Changes in the legal environment	13
MiFID II	13
Legal amendments facilitating IPOs	14
Commercial Arbitration Court	14
National Stock Exchange Development Fund	15
Mentoring programme: Summary of the GINOP project	17
Stock Exchange Advisory Board	19
Concluded cooperation agreements	20
<b>SUCCESSFUL YEAR FOR THE EXCHANGE – HIGH OPERATIONAL RELIABILITY</b>	<b>21</b>
IPOs, capital increases and additional issues	21
Domestic equity market continued to expand	24
Overview of KELER's activities	27
Developing issuer services, strengthening corporate governance	29
Data sales and the BSE	30
<b>MARKET AND PRODUCT DEVELOPMENTS</b>	<b>31</b>
New programme to support the secondary market of securities issued by small and midcap companies	31
New mortgage bond indices added to the BSE's index family	33
Downturn in BUX Futures Market trading halted	35
MiFID II enters into force	37
Regulated Real Estate Investment Companies (SZITs) go public on the stock exchange	39
Xtend platform launched	40
<b>A DEVELOPING CAPITAL MARKET ECOSYSTEM</b>	<b>42</b>
Developing partnership	42
Identifying IPO-Ready Companies	44
Milestones of the NOMAD cooperation	46
ELITE Programme - In partnership with the London Stock Exchange for SMEs	48
Contacts with Venture Capital and Private Equity firms	51
<b>INTERNATIONAL RELATIONS</b>	<b>52</b>
Roadshows and international conferences in 2017	52
World Exchange Congress in Budapest	54
At the gates of Asia	55
Cross-listing and Dual-listing	56
<b>BEYOND THE TRADING FLOOR: SUSTAINABILITY</b>	<b>58</b>
Corporate social responsibility	58
Budapest Institute of Banking – BIB	60
Kochmeister Competition 2017	62
<b>OUTLOOK ON 2018</b>	<b>65</b>
<b>SPECIAL TOPICS</b>	<b>67</b>
Corporate governance	67
Practical experience gained from employee stock ownership plans	69
<b>GLOSSARY</b>	<b>72</b>

## BSE CAPITAL MARKET DEVELOPMENT STRATEGY 2016–2020

---

The overarching aim of the strategy devised by the Budapest Stock Exchange (BSE) for the period 2016–2020 is to formulate and implement a comprehensive capital market and stock exchange development programme in Hungary, which will result in capital fundraising increasing its role in Hungarian corporate finance, making it an effective supplement to credit from the banking sector, which predominates at present.

Having a highly developed capital market and stock exchange is a precondition for any competitive, innovative economy. A well-functioning stock exchange encourages investment in bonds and shares, which is of critical importance to enterprises that are denied credit by banks, especially during a slowdown in credit. Being present on the stock exchange requires companies to operate transparently, which greatly contributes to “cleaning up” the economy. In the face of global competition, it is essential for Hungary to establish leading centres of knowledge, innovation and production. This process is supported by developing enterprises listed on the BSE in a way that is centred on Hungary, with independent management, thus enabling regional expansion with the help of stock exchange financing.

The timing for formulating and implementing the new stock exchange development strategy is ideal for a number of reasons. Firstly, helping enterprises – in particular small and medium-sized enterprises (SMEs) – to find funding via the capital markets is the focus of economic policy at both the European and the global level. To promote this policy, the European Commission presented its concept for the Capital Markets Union, while in 2012 the USA passed the JOBS Act, with the main objective of fostering employment and innovation by developing capital markets. Capital markets also serve to promote a more effective distribution of EU funds in the period 2016–2020. This framework provides opportunities for EU funds to be used to strengthen the economic role of the stock exchange, so there is a realistic chance of generating an effectively functioning capital market in Hungary by 2020.

Achieving the strategic goals demands even closer cooperation than before with the government, state institutions and market players in order to create a business and regulatory environment that actively supports balanced growth in the Hungarian economy through improvements to the capital market and the BSE. This will shift the BSE’s role as a catalyst into the foreground, reverse the downward trend in stock market turnover witnessed in

---

the last few years, raise capitalisation as well as the number of offerings, and improve the profitability of the BSE in the medium term.

The most urgent task at present is to promote successful stock market launches by assisting initial public offerings (IPOs) from enterprises that can demonstrate stable performance, that have a business strategy offering serious growth potential, that meet the demands for high quality that will bolster investor confidence, and which therefore will attract substantial investor interest. Furthermore, it is important that the IPOs are priced at a level that facilitates future improvements in prices.

State-owned corporations represent one of the key issuer target groups, the public offerings of which could be implemented on the basis of a schedule to be prepared hand-in-hand with the government. Capital market presence contributes to improving the profitability of these companies as well as indicating the Hungarian state’s commitment to developing the capital market. In addition to the fact that public listing allows for the recapitalisation of undercapitalised state-owned companies, it also generates immediate budgetary revenues. More efficient and effective operation also leads to other benefits, such as higher employment and growing tax revenues arising from increased activities by the company’s suppliers and other business partners. Stock exchange sales seen during the wave of privatisation in Hungary in the 1990s generated considerable surplus for these companies in terms of competitiveness and innovation, as well as in establishing the capacities required for development. The seats of companies privatised on the Budapest Stock Exchange, and consequently the centres of major business decisions that require highly qualified management and staff, remained in Hungary which had further positive added value at the level of the national economy.

In addition to this, identifying larger corporations and SMEs that may represent a good investment alternative, and assessing their stock market viability, is another essential component for building up a diverse issuer structure and for further increasing stock market turnover. For issuers, this represents immediate, continuous and long-term capital-raising opportunities, which will increase competitiveness and provide incentives for management and staff alike.

---

---

The fact that the government supports and pays particular attention to developing the domestic capital market to achieve long-term, sustainable economic growth and innovation is an important message for economic players. The state can contribute to developing the stock exchange in numerous forms; without such support, the chances of accomplishing impressive successes drop substantially in the short term. The support of the government is particularly important in regard to establishing a market-friendly regulatory environment, and promoting the use of EU resources to develop the stock exchange.

The strategy concentrates primarily on boosting the domestic stock market, with supplementary objectives being developing certain submarkets and increasing revenues not directly associated with share trading. In the interest of boosting the debt securities section, the BSE is cooperating closely with the Government Debt Management Agency (ÁKK), and is examining possible breakthrough opportunities in the derivatives, commodities and securities sections, as well as in data sales.

In summary, the BSE has set the following goals for the period 2016-2020:

- listing five new stocks or corporate bonds every year, which conform to quality criteria;
- increasing the number of companies mature enough to be floated on the stock exchange – fifty companies within four years;
- increasing the number of large capitalisation liquid shares – the expansion of MSCI Hungary to five companies within four years;
- facilitating access to funds for SMEs – thirty companies on the SME market within four years;
- increasing capitalisation/GDP, objective: ~30 %;
- increasing the liquidity of smaller securities – 20 quoted/analysed securities within four years; and
- engaging active partners for stock exchange listings – ten IPO partners (NOMAD) within two years.

---

Looking ahead to the coming year, in addition to the development of the Stock Exchange and the Hungarian capital market, there are other important tasks that must also be considered. For example, the introduction of MiFID II, the EU-level capital market regulation effective as of January 2018, will have high novelty value for all capital market players. However, the year ahead will also be about taking domestic and international relations to the next level: conferences, roadshows, youth education, lectures for the public at large and the continuous development of the educational efforts of our affiliate, the Budapest Institute of Banking, in accordance with the foregoing.

# EXECUTIVE SUMMARY

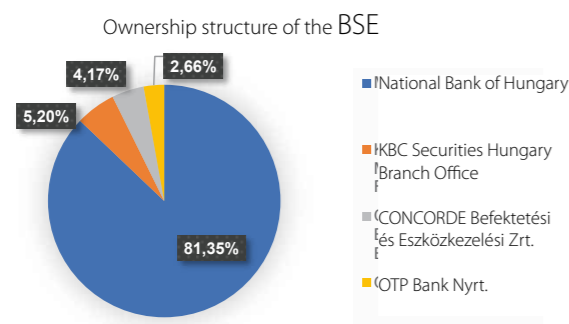
## THE YEAR OF NETWORKING

### EXECUTIVE SUMMARY FOR THE REPORT ON THE SECOND YEAR OF IMPLEMENTING THE BSE'S 5-YEAR STRATEGY

'Always bear in mind that your own resolution to succeed is more important than any other one thing', wrote Abraham Lincoln to a friend's son, encouraging him to continue his legal studies. Isham Reavis did take his advice: he later became famous as a justice of the Arizona Territorial Supreme Court, and some of his rulings still constitute binding precedent in US law.

The Budapest Stock Exchange set its goals three years ago and has now successfully concluded the second year of implementing its 2016–2020 strategy. Trading volume on the cash equity market – the most important measure of our performance – grew by an outstanding rate last year, as shown by the results of the first eleven months available at the time of compiling this summary.

Our enthusiasm for implementing the new strategy continues unabated. Our efforts to accomplish our objectives have enjoyed the support of our main shareholder, the National Bank of Hungary, the government and market players, but also that of the ongoing good performance of the Hungarian economy and an ideal investment environment. Our ownership structure also reflects the commitment of the state and the market players to the development of the capital market and the stock exchange.



We can rely on an increasing number of partners in the implementation of our strategy: last year was dedicated to networking. We made progress in meaningful cooperation with every actor capable of contributing to building a successful and active capital market. We are in contact on a daily basis with the managers or owners of the small and medium-sized enterprises and large corporations which could appear on the market as issuers in the future. In

the meantime, the legislature has also shown committed support towards the Budapest Stock Exchange. In this respect, it is sufficient to mention the legislative amendment package concerning the financial intermediary system, the expansion of the range of BSE activities, or the legislative amendment favouring the establishment of Regulated Real Estate Investment Companies.

Development of the domestic capital market is now more relevant than ever. Our objective, as laid down in our 2020 strategy, is to implement a comprehensive programme to develop the capital market and the stock exchange which will enable the latter to contribute to the growth and competitiveness of the Hungarian economy. Companies must prepare for the time when they will no longer base their growth on EU grants or subsidised loans, but on market resources. The Exchange is already prepared for that phase and for the responsibility of acting as a catalyst in the economy.

When I say that the stock exchange acts as the catalyst for the economy, then small and medium-sized enterprises will be the driving force behind that economy: their economic importance is undisputed,

as this sector employs nearly half of all employees and produces 50–60 percent of the GDP. But they also have to work hard to earn their place in the face of extremely intense global competition. It is essential for Hungary to establish leading centres of knowledge, innovation and production, and for a number of Hungarian companies to progress to the next stage of company growth. We at the Stock Exchange believe that providing medium-sized enterprises with access to the capital market is crucial for sustainable, innovation-based economic growth. As R&D is particularly capital-intensive, a well-functioning capital market and the knowledge of how enterprises can exploit its potential for their growth are essential to competitiveness.

It is our firm belief that access to capital is also a key element enabling domestic companies to attain their growth objectives. Our mission for the upcoming years is to achieve a significant increase in the capital raised through the stock exchange in Hungary, thus complementing bank loans, which still constitute the main source of financing.

The objective of the BSE is to become the most important platform for competitive and successful domestic enterprises. Both the BSE50 publication, issued again this year, and the SME Summit conference we held in the autumn show that we are not only counting on large corporations. We have already identified several small and medium-sized domestic enterprises with an appropriately stable financial, business and management background and excellent growth prospects. These businesses are also invited to the exchange, as they are specifically targeted by our new market, Xtend, which offers an opportunity to take their operations to the next level. Our company development and training programme launched in cooperation with ELITE, a member of the London Stock Exchange Group, also focuses on SMEs. As a result, already the leaders of seven ambitious Hungarian companies joined the ever growing ELITE community in April, followed by three more entrepreneurs in November.

In making an IPO, the companies agree to implement more transparent operations and a more efficient business organisation. This strengthens their commitment to growth, boosts brand awareness and builds their business partners' trust, all which have a positive effect on the companies' profitability. Our goal is thus to have an increasing number of competitive and internationally viable companies in Hungary. BSE's increasingly active role is a means of developing the Hungarian economy, and as such, it can provide companies with key assistance in their development. Besides promoting growth, another important aspect is that presence on the stock exchange increases and facilitates the transparency of companies and contributes to a cleaner economy.

An important element of our strategy is that the stock exchange should act as an economic catalyst and provide as many Hungarian companies as possible with access to capital markets as possible, helping them progress on the path towards sustainable growth. In its Year of Networking, the BSE signed cooperation agreements with important professional organisations including the Confederation of Hungarian Employers and Industrialists (MGYOSZ) and the Hungarian Chamber of Commerce and Industry (MKIK) in order to increase its effectiveness in communicating with companies. Companies can become competitive by improving their capital market knowledge, and raising capital through the stock exchange can offer a genuine alternative for medium-sized and growth-oriented enterprises. One of the key points of the cooperation with MFB Invest focuses on our collaboration to prepare state-owned and privately-owned companies planning an IPO for going public. However, facilitating the design, introduction and development of corporate governance frameworks is also an area in which MFB Invest and the Hungarian stock exchange expect to collaborate in the future.

Meanwhile, the demand side, i.e. the investor base, must be taken into consideration as well. Hungarian savers are essentially conservative, and the proportion of funds held in corporate securities out of total savings is small by international standards. We intend to change that. It is important to us that trust in the BSE and capital markets continues to grow, as this can lead to a higher equity ratio in Hungarian retail and institutional portfolios, which will promote an increase in equity investments in long-term – e.g. retirement – savings.

A very important element of making well-informed investor decisions is that investors regularly receive quality information and evaluations about premium category equity issuers, ones which may not receive as much attention as blue chips. To promote this, we launched a programme at the end of 2017 aimed at improving information supply and supporting liquidity, which includes making independent analyses of small- and mid-cap company equities, available free of charge on the BSE website.

Since 2016, the famous bell of the Stock Exchange was rung more than once this year for such companies as UBM Holding, OPUS Nyrt, Masterplast and last but not least, Waberer's. Waberer's going public in the premium category was a major milestone for the BSE. At the time of the IPO and calculated based on the HUF 5,100 offer price, the capitalisation of the company was over HUF 90 billion (HUF 90,238,043,400 or roughly EUR 291.0 million). It was thus that Waberer's achieved the sixth largest capitalisation on the trading floor, and the newly-listed company was also added to the BUX basket with the fifth largest weight in September 2017.

However, a national stock exchange focusing on effective, active and dynamic development cannot exist without building and strengthening its international contacts. Our aim is to actively participate in global capital markets by reinforcing the regional position of Budapest and promoting the Hungarian stock exchange among international investors and financial intermediaries. To that end, we continued to organise joint roadshows with issuers and to make investor visits to London, Paris, Warsaw and Zagreb.

The Stock Exchange, as a central player on capital markets, cannot overemphasise the importance of developing one's financial knowledge. This commitment is also indicated by its free BSE Academy training courses organised for the public, visits to the Stock Exchange also organised free of charge for secondary school students, the Kochmeister Award awarded to support students studying in higher education institutions, and the close cooperation with the Pénziránytű Alapítvány (Money Compass Foundation). Nonetheless, we believe that training courses on more specific financial and capital market subjects are best organised by a dedicated institute. A common international practice is for stock exchanges to run dedicated educational institutions in order to effectively develop money and capital markets. In the summer of 2017, the Budapest Stock Exchange established a new educational institution to modernise the financial education and test system. This institution, the Budapest Institute of Banking, was launched at the end of November.

Apart from the new strategic goals of the Budapest Stock Exchange, its most important basic duty is still to provide a transparent and liquid market for Hungarian and foreign securities. In a spirit of transparency and sustainability, the present publication on capital market development is intended to provide actors on the capital market, legislators and interested private individuals with a comprehensive overview of events over the past year relating to the Hungarian stock exchange and the Hungarian capital market.

Richárd Végh  
Chairman & CEO of the Stock Exchange

## Cooperation with the government and the market

### CHANGES IN THE LEGAL ENVIRONMENT

#### MiFID II

MiFID II and its implementation in Hungary constituted the most significant legal change related to the functioning of the stock exchange and capital markets in 2017.

The most important purpose of MiFID II (Directive 2014/65/EU of the European Parliament and of the Council on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU), MiFIR (Regulation (EU) no. 600/2014 of the European Parliament and of the Council on markets in financial instruments and amending Regulation (EU) no. 648/2012) and other EU legal norms issued on the basis of these legal regulations is to further develop the capital markets of the European Union, to improve investor protection and transparency, to ensure that trading in financial instruments is increasingly directed towards regulated trading venues, to limit commodities market speculation and to give proper regulatory responses to new technological challenges.

MiFID II was transposed into Hungarian law primarily by Act LXIX of 2017 on amending the acts regulating financial markets and trading in financial instruments as adopted by Parliament on 30 May, 2017, which amended Hungarian sectoral laws to incorporate the provisions of the MiFID II directive into the relevant Hungarian legal regulations, first and foremost into the Capital Market Act and the Act on investment firms and commodity dealers, and on the regulations governing their activities. In addition to Hungarian legal regulations, market players must also comply with numerous directly applicable EU statutes regulating the expected operation of certain capital market participants down to minute details under the authorisation provided for in the directive.

The new legislation requires that the stock exchange ensure the appropriate flexibility of its trading systems, sufficient capacities to handle peak loads and the continuity of business. More stringent rules will be introduced for the direct electronic access service, as well as for investment companies using algorithmic trading strategies and for trading venues where algorithmic trading may potentially take place, including a requirement to properly identify all orders resulting from algorithmic trading practices as such, and to report the use of algorithms to the Supervisory Authority.

The primary purpose of the new obligation requiring stock exchange members to provide detailed information about, among other things, the identity of the client and the company employees responsible for making the investment decision and for carrying it out when entering new bids is intended to prevent market abuse and to facilitate the detection of any existing cases.

Stock exchanges and stock exchange traders must synchronise all business clocks which are used to record the date and time of any events to be reported. In exceptional cases and following the procedure set out in the exchange regulations, the stock exchange must ensure the option of cancelling a transaction even after it has been concluded.

When operating a regulated market of commodity-based derivatives, the trading venue has to employ an appropriate control mechanism for managing positions and use it to monitor all the open positions of traders and clients. If necessary, it must oblige traders to lower their exposure exceeding the position limit set by the supervisory authority and to reroute liquidity back to the market.

These amendments will take effect on 3 January 2018.

### LEGAL AMENDMENTS FACILITATING IPOs

The new EU Prospectus Regulation ((EU) 2017/1129) was adopted in June 2017. It will be directly applicable in each EU Member State without transposition into the Member States' laws and will considerably facilitate access to the market mainly for SME and frequent issuers. Although the Regulation will be fully applicable as of 21 July 2019 only, certain sections of it will take effect before that date. The provisions of the Regulation applicable as of July 2017 have slightly expanded the category of regulated market IPOs where the publication of a prospectus is not required.

The amendment of the Companies Act effective as of 1 January 2017 (related to the earlier amendment of the Civil Code) simplified the administrative steps of transforming a private limited company into a public limited company and made it possible for companies to file a request with the Court of Registration to amend their registration to reflect the transformation into a public limited company prior to the listing. That makes it possible for them to list shares on the stock exchange and start trading in them at the same time – so far, these had been two separate steps.

By way of derogation from the above and also due to the EU legal harmonisation obligation, the Accounting Act imposes additional requirements on issuers since, as a main rule, stock exchange issuers already have the obligation to prepare an IFRS account for the business year starting in 2017.

The general securities law regulation set forth in the Civil Code was also amended effective as of 1 January 2017. Not affecting any basic provisions, these amendments implemented more practical and simplified provisions and removed certain regulations – mostly rules of procedure – from the Code. The open securities concept remained in use, which allows for the issuance of securities coming with the minimum set of mandatory details and terms and conditions set out in the Civil Code, even if the securities themselves are not named in any legal regulations. However, issuers have not yet taken advantage of this option.

### COMMERCIAL ARBITRATION COURT

The new Arbitration Act (Act LX of 2017) adopted by the Parliament on 30 May 2017 introduces a significant change on the institutional side of Hungarian arbitration. The Permanent Arbitration Court for Money and Capital Markets, which had the Hungarian Banking Association as well as BSE among its founding members, is going to be terminated on 31 December 2017 and replaced by the newly established Commercial Arbitration Court operated by the Hungarian Chamber of Commerce and Industry. The Budapest Stock Exchange has the right to delegate one of the seven members of the Board of Governors of the new court of arbitration.

## NATIONAL STOCK EXCHANGE DEVELOPMENT FUND

Already in 2017, the principal tasks of the Stock Exchange included supporting the listing of potential companies, so we continued our work on setting up the National Stock Exchange Development Fund (hereinafter: NTfA) in that spirit. NTfA supports medium-sized companies in entering the capital market through capital investments and is also part of a comprehensive stock exchange development programme intended to increase the share of capital fundraising in the life of Hungarian companies, thus supplementing bank financing, which is currently over-represented. The primary task of the Fund is therefore to support and strengthen medium-sized domestic companies and to implement capital investments to help them go public.

Basically, the capital programme is intended to increase the number of medium-sized domestic companies appearing in the Hungarian capital market and, particularly, on the Budapest Stock Exchange, providing an effective means of capital-raising to all enterprises sufficiently mature to enter the international market and having the potential for further growth.

Apart from that, the NTfA also supports the development of domestic enterprises and improving their competitiveness and efficiency. It can help them access new markets, extend the range of their products, and implement business development solutions which may contribute to improving their existing operations and acquisition of new clients.

The efforts to set up the NTfA reached an important milestone on 5 October 2017, when a call for applications was announced to select the fund manager for the National Stock Exchange Development Fund. Fund managers could submit applications until 3 November 2017. Expected to be launched at the beginning of 2018, the NTfA, together with private investors, will provide capital to businesses that agree to be listed on BSE's Xtend or regulated market and to prepare to issue equity shares on the stock market.

The selected Fund Manager will have to strive to ensure that a number of medium-sized companies meeting the conditions set forth in the call for applications go public on the Xtend platform every year, and to also have the suitable companies execute public transactions (in a higher trading "category") on the stock exchange (going public includes technical listing, listing and listing on the MTF market).

The BSE staff will build a close professional relationship with the winning Fund Manager related to the latter's investment activities, focusing particularly on active searching for projects and filtering investment opportunities. Additionally, the parties will continue to hold consultations on using the support programmes and services preparing the companies for going public, and about setting the tasks and requirements related to the public issue.

An important cornerstone of the NTfA operation is that the fund manager should involve private equity as co-investment in all investments. The total term of the fund is 12 years, while an average placement period (investment period in target companies) is for 5 years. The typical investment size is HUF 1 billion (including both public and private sector investment amounts). The maximum investment



amount is EUR 15 million per enterprise. It is expected that the involvement of private equity will be encouraged by such further incentive measures as yield diversion (asymmetrical distribution of gains), distribution of losses and/or making custom agreements with future private investors.

The intended uses of the capital investment will include, among other things, financing the corporate financial advisers' costs by the fund (costs associated with listing the equity securities on the stock exchange) and other cost items also financed by the fund related to financial and legal screenings.

As a venture capital fund, the National Stock Exchange Development Fund supports the success of the Xtend market similarly to the ELITE Programme. On the one hand, it boosts supply by enabling target companies to step to the next level in terms of size (and quality also) through the investments made and contributions offered by the fund, which helps those companies get closer to being listed on the stock exchange. On the other hand, it may also have a positive effect on the demand side at the stock exchange since the fund can itself subscribe to shares during an IPO.

However, the effects of the Capital Programme go beyond direct benefits: the support it provides contributes to implementing the capital market infrastructure and know-how, and to improving the capital market liquidity of medium-sized companies, which may also lead to an increase in the number of quality IPOs and/or MTFs listings. The option to have part of the advisor costs and the costs of entering the market financed by the capital programme should be underlined.

## MENTORING PROGRAMME: SUMMARY OF THE GINOP PROJECT

Following a thorough preparatory phase, the BSE and the Ministry for National Economy (NGM) signed the support agreement about the mentoring programme to be implemented using GINOP funds provided by the European Union in December 2017. As a result, small and medium-sized domestic enterprises can apply to the programme for support in preparing for and implementing their listing starting from 2018. The main goal of the programme is to strengthen those companies in the domestic medium business sector which show strong growth by launching a corporate financing-oriented training programme, and, in the case of enterprises open to transparent operation as a traded company, to support their preparation process for becoming a traded company.

Accordingly, the special GINOP mentoring project comprises two parts, which differ in their rules of procedure and the applicable grounds for aid. The first part of the project aims to support SMEs taking part in the training programme implemented through international cooperation, while the second is to set up a programme supporting the preparation of SMEs for the stock exchange and going public.

In the first half of the project, the development to be implemented by the BSE will focus on launching a cooperation programme providing European training and mentoring services and conveying that to target group enterprises in line with international practice. The companies participating in this international cooperation can take part in a complex training/mentoring programme where they can learn from the most prepared advisors and extend their network of relationships. The programme also aims at international integration, which provides participating SMEs with the means necessary for further growth and for expanding their operations to export markets. In addition to that, the programme also allows enterprises to find the financing method most favourable for them, whether through loans or equity financing (even through the BSE).

Thus, the target group consists of fast-growing medium-sized companies which are suitable in terms of strategy and financing and who are motivated to take the next step towards competitive corporate status. The BSE takes the view that training of entrepreneurs could turn out to be one of the most important factors in the performance of the SME sector in the long run. By implementing this project, the BSE also contributes to the development of small and medium-sized enterprises showing outstanding growth potential by:

- improving their financial literacy,
- enhancing their ability to raise third-party financing on their own,
- promoting their international networking skills,
- allowing them access to international markets,
- and strengthening the presence on the stock exchange.

According to the preliminary plans, several enterprises can complete the two-year training course in the areas supported by GINOP by the end of the first part of the project.

The goal of the second part of the project is to support medium-sized enterprises in their preparation for the stock exchange and to encourage them to raise funds via the capital market if there is no or only insufficient financial funding available on money markets. This target group includes those more mature medium-sized companies which are ready to operate transparently (a requirement which traded companies must fulfil), but who have not yet begun the preparations for the stock exchange launch process due to a lack of skills or financing. The overall project focuses expressly on those enterprises which show the potential to be suitable for listing and/or to be an attractive investment option for Hungarian institutional or private capital investors after the preparatory period.

The GINOP mentoring project is the preparatory phase for the National Stock Exchange Development Fund. As a result of the activities to be completed, domestic SMEs can become stronger and more prepared.

In 2017, the professional cooperation between the BSE and NGM also included the involvement of the Central Hungarian region into the implementation of the professional content of the GINOP project. As a result of the consultations held and the preparatory materials drafted to that end, on 8 November 2017 the Ministry for National Economy endorsed the BSE request for a Central Hungary Operational Programme intended to extend the mentoring program to companies operating in Central Hungary.



## STOCK EXCHANGE ADVISORY BOARD

The Stock Exchange Advisory Board (TTT) of the Budapest Stock Exchange was set up at the beginning of 2016 by the new Board of Directors of the BSE elected at the end of 2015 with the purpose of including in the development and implementation of the new strategy of the Stock Exchange (now owned by the Central Bank of Hungary) as wide a range as possible of concerned industry stakeholders. The task of the Advisory Board is to prepare, substantiate and provide an opinion on the strategic and business decisions of the institution. The 17 members of the Advisory Board include current and former leaders and major figures of the money and capital markets, as well as the leaders of different professional chambers and administrative bodies. The Stock Exchange Advisory Board had three meetings this year. In February, it evaluated the best performances of 2016 in the Hungarian capital market. The awards were ceremoniously handed over by the Stock Exchange management at the Best of BSE event. At its July meeting, the Stock Exchange Advisory Board reviewed the implementation of the stock exchange strategy, and made proposals concerning the terms of the programme which supports listing on the stock exchange and the set of conditions for the SME market. The November meeting was dedicated in part to CEO Gergely Fábián, who made a presentation about the topicality of establishing the Budapest Institute of Banking, the new subsidiary of the BSE; and in part to TTT members' evaluation about the market development activities carried out in 2017, including the Waberer's transaction, the results achieved in the areas of Budapest Share Index (BUX) futures subscriptions and developing international relationships, as well as the successful BSE50 conference on medium-sized enterprises.

The Chairman of the advisory board is former Stock Exchange Chairman Mihály Patai, the Chairman and CEO of UniCredit Bank.

Members of the Advisory Board:

Zoltán Bánfi, MKB Bank Zrt; Dr Tamás Bánfi, Corvinus University of Budapest; Hannes Takacs, European Bank for Reconstruction and Development; Dr Ilona Hardy, Aranykor Voluntary Pension Fund; Ádám Hegyi, Hungarian Branch of KBC Securities; György Jaksity, Concorde Értékpapír Zrt; Zsigmond Járai, MOL Nyrt; Kálmán Nagy, Concorde MB Partners; Dr András Nemescsófi, DLA Piper Horváth and Partners Law Office; Gábor Orbán, Richter Gedeon Nyrt.; Dr László Parragh, Hungarian Chamber of Commerce and Industry; Dr Norbert Szivek, Hungarian National Asset Management Inc.; Sándor Vizkeleti, Association of Hungarian Investment Fund and Asset Management Companies; Dr Levente Zsembery, Hungarian Venture Capital and Private Equity Association;

Richárd Végh, Chairman and CEO of the BSE, takes part in the work of the Advisory Board in a consultative capacity.

## CONCLUDED COOPERATION AGREEMENTS

In order to develop the capital market, we strived to cooperate with professional organisations as actively as possible in 2017. We have entered into a number of new professional agreements and expanded the scope of our cooperation under existing ones. The BSE's relationship with the Government Debt Management Agency is an example of such a long-standing relationship. Meanwhile, the establishment of our cooperation with the Chamber of Hungarian Auditors, the National Association of Voluntary Funds, and the Money Compass Foundation started in 2016. The group of cooperation partners was joined by the Confederation of Hungarian Employers and Industrialists (MGYOSZ), MFB Invest Investment and Wealth Management Ltd., the Hungarian Chamber of Commerce and Industry (MKIK), and the Hungarians on the Market Club (MAPI) in 2017.

The BSE cooperates with the Hungarian Economic Association (HEA) in organising joint events. Several BSE staff are active members of the Economic Association, while BSE Chairman & CEO Richárd Végh is also the Chairman of HEA's Corporate Governance Department.

We are also looking for potential partners for cooperation at the international level that share the values represented by the Stock Exchange and, most importantly, support the BSE in its effort to attain its goals. We entered into a cooperation agreement with the ELITE Programme of the London Stock Exchange Group in line with those expectations in 2016, and we have been working with domestic and foreign brokerage companies in the same spirit of partnership in order to promote BSE issuers primarily at the international level, but also in Hungary. These steps are supported by the notion that it is simply more effective to find and contact potential investors through partners. In 2016, such partners included Wood & Co., JP Morgan, Concorde, and Erste Bank.

Two new institutes, the Bank of China and the Shanghai Gold Exchange joined the group of our international partners in 2017. This allows us to further strengthen our cooperation in the capital market, enabling Chinese investors to familiarise themselves with the potential of Hungarian companies and granting Hungarian investors access to products quoted in the Chinese currency as well.

Another example of a close cooperation on a perhaps less prominent – but nonetheless important – area also shows the importance of partnerships: our information technology cooperation with the Vienna Stock Exchange, which supplies the Xetra trading system and the ADH system to the Budapest Stock Exchange, thus enabling the Hungarian stock exchange to serve its brokerage partners and data vendors as efficiently as possible.

The remaining pages of the Report contain more details on each of the partnerships listed above.

## Successful year for the exchange – High operational reliability

### IPOS, CAPITAL INCREASES AND ADDITIONAL ISSUES

Following the successful Alteo and Duna House IPOs in 2016, the range of the Budapest Stock Exchange products was added a new stock when trading of UBM Holding shares was launched in “Equities Category T” on 3 March 2017. The Hungarian-owned UBM Group, a major player in the Hungarian animal feed production and trade sector, uses state-of-the-art 21st century technologies and places especial emphasis on R&D activities. The newest member of the company group, which ships more than 1 million tons of goods annually, initiated the listing of its shares on the stock exchange last December. The long-term goals of the group are to further strengthen the market positions it has attained over the past 20 years and to expand in the region.

Péter Horváth and András Uzsoki, members of UBM Holding's Board of Directors, made the following statement on the day when trading in the company's shares began: “It is a source of great pride to us that the history of the UBM Group has reached another milestone, and that after 20 years in the business, our shares are now listed on the Budapest Stock Exchange. This step contributes to implementing our growth strategy and we hope that we can continue to raise significant funds through the stock exchange in the years to come.”

The next IPO took place on 6 July 2017, when – following successful capital raising – the heads of Waberer's International launched the trading day by ceremoniously ringing the bell at the Budapest Stock Exchange. Waberer's listing in the Premium category was a major milestone in the history of the BSE as Waberer's achieved the sixth largest capitalisation on the trading floor. Moreover, the newly-listed company was also added to the stock basket with the fifth largest weight during the revision of the Budapest Share Index (BUX) in September.



The offer period was open from 19 to 29 June 2017. At the time of the IPO, and calculated based on the HUF 5,100 offer price, the capitalisation of the company was over HUF 90 billion (HUF 90,238,043,400 or roughly EUR 291.0 million), making Waberer's the sixth largest company traded on the BSE. Institutional investors and small investors purchased 82 and 17.8 percent, respectively, of the equities sold, while 0.2 percent were bought by the company's employees. The company spent almost all of the HUF 15.5 billion gross proceeds from its public offering on the acquisition of Link, one of its Polish competitors, which is considered to be the European leader in full truckload (FTL) transportation.

CEO Ferenc Lajkó commented: "This is the right time for us to make the next step in our growth strategy. In Hungary, we are in the fortunate position of having four European transport corridors crossing the country. The additional funds generated and the strategic flexibility provided by the IPO will strengthen our ability to implement our expansion plans based on the acquisition of Link."

The volume of the equity market also grew as a result of capital increases. Seven joint stock companies: CIG Pannónia Életbiztosító Nyrt., Duna House Holding Nyrt., Nordtelekom Nyrt., OPUS GLOBAL Nyrt., Appennin Nyrt., KONZUM Nyrt. and OTT-ONE Nyrt. decided to increase their capital in 2017.

In addition to the two IPOs, several debt securities, structured products and investment units were listed on the stock exchange in 2017. Our issuers contributed to the growth of the capital market by listing 10 new mortgage bonds, 15 new bonds, 18 new investment units and more than 130 certificates and, in addition to that, our debt securities market also grew by additional issues in a total face value of HUF 140 billion.

In November 2016, Eximbank was listed on the BSE as a new bond issuer. Following the success of its first appearance on the capital market under Hungarian law, Eximbank continued its bond issue, one which attracted similar interest in 2017, and which led it to add EXIM bonds for total face values of EUR 83 million and HUF 20 billion to the BSE product list.

The Hungarian Development Bank Ltd. also had outstanding bond listing activities in 2017: the total volume of the securities which the bank listed on the Stock Exchange increased by EUR 200 million and, by listing other forint-denominated bonds, by HUF 15 billion in this year alone.

The WINGHOLDING 2019/1 bond of WINGHOLDING Ltd. was added to the BSE offer list in the summer of 2016. The real property development and investment company issued bonds in three different placements for a total face value of EUR 36.04 million that year. The Company's 2016–2017 bond programme, which had a total face value limit of EUR 40 million, was closed after the placement of the fourth tranche (total face value: EUR 3.96 million) in March 2017. The bonds of the Company can be traded on the BSE until June 2019.

At present, BSE trades 34 types of mortgage bonds of Erste Jelzálogbank Zrt., FHB Nyrt, OTP Jelzálogbank Zrt. and UniCredit Jelzálogbank Zrt. in a total value of nearly HUF 760 billion. This is a roughly 68 percent increase compared to last year's total volume of HUF 453 billion. This volume increase is due mainly to the HUF 192 billion mortgage bond issue by OTP Jelzálogbank Zrt., but FHB Nyrt. also significantly

contributed to extending its product range on the offer side by raising the number of its BSE-traded securities for a total face value of HUF 59 billion.

In addition to the above-mentioned major extensions to the Stock Exchange's product list, we consider it important to point out that the equities of Masterplast Nyrt. and OPUS GLOBAL Nyrt., which had been traded in the Standard Equities Category, were transferred to BSE's Premium Equities Category in October 2017. As BSE Chairman and CEO Richárd Végh put it earlier: both companies are excellent examples of how an enterprise can grow further by exploiting the potential of capital market financing and getting listed on the stock exchange. Their transfer to the BSE Premium Category put these companies among issuers whose size makes them the most significant and most popular investment targets in the eyes of investors.

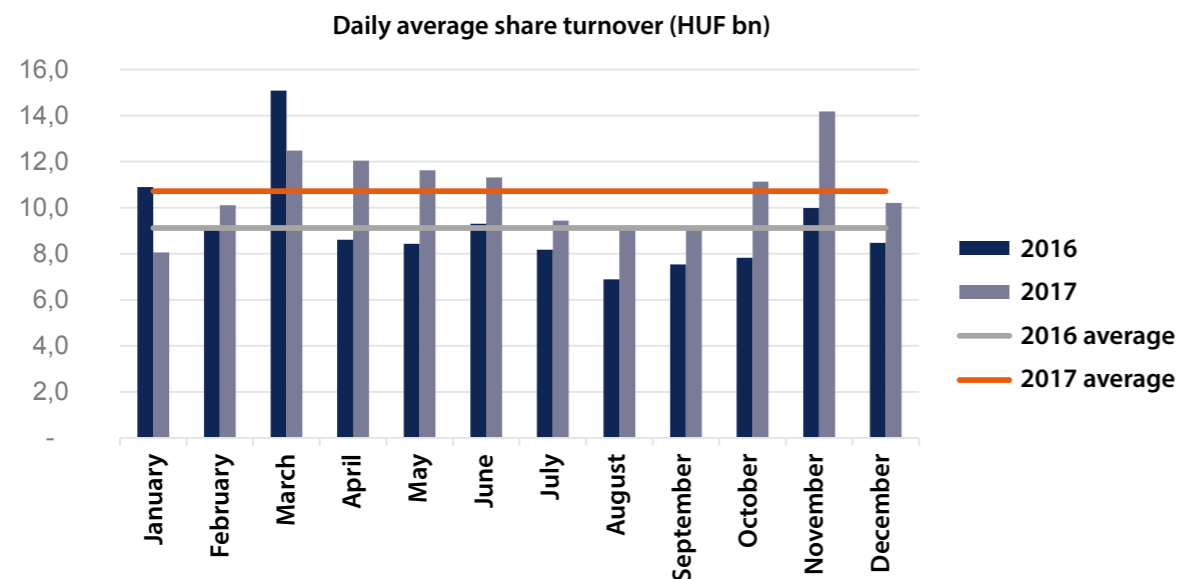


## DOMESTIC EQUITY MARKET CONTINUED TO EXPAND

### SHARE INDEX OF THE BUDAPEST STOCK EXCHANGE SETS NEW RECORDS, SMALLER EQUITY SECURITIES MAINTAIN THEIR MOMENTUM

The Hungarian stock exchange maintained its momentum throughout 2017, while the main share index of the BSE set several new records this year as well. The previous historic record of 30,118 points achieved on 23 July 2007 was first exceeded on 7 November 2016, when the index closed at 30,353 points. That was followed by a period of setting new records on a regular basis, and the BSE share index reached its most recent absolute peak of 40,274 points on 9 November 2017.

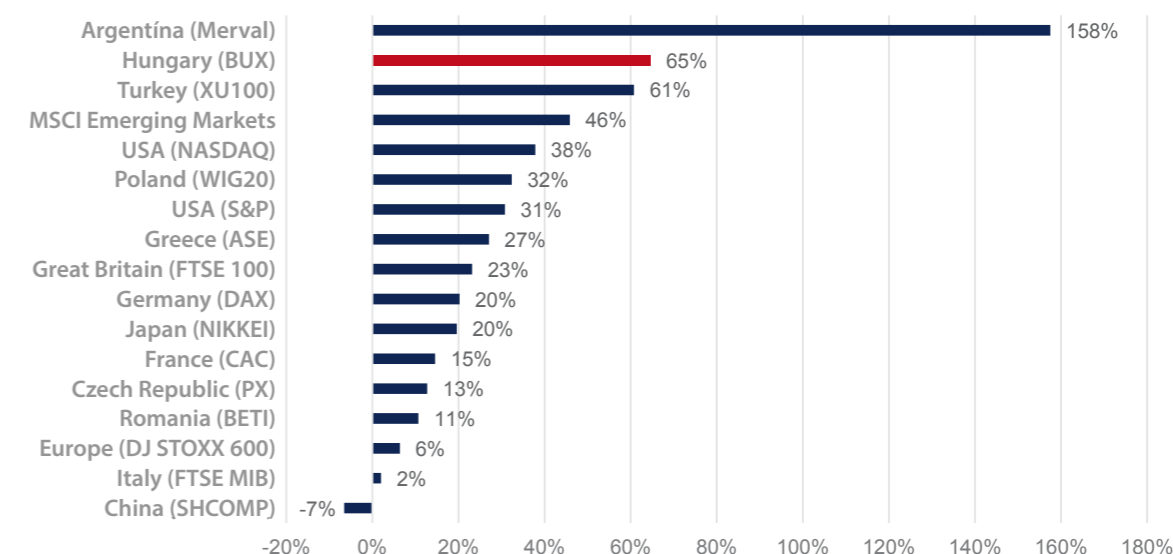
The upturn after the economic crisis came in 2015, when the index of the Hungarian equity market broke out from the narrow band in which it had been fluctuating, and traded volumes also began to rise. The share index of the Budapest Stock Exchange grew by a total 137 percent between the beginning of 2015 and the end of 2017 – an outstanding performance not only at the regional but also at the global level. Compared to 2016, the average daily share turnover of the Budapest Stock Exchange has grown by 17.5 percent to HUF 10.7 billion; whereas the HUF 2,690 billion annual share turnover achieved in 2017 exceeded the HUF 2,298 billion total annual turnover recorded in 2016 by HUF 392.1 billion (+17 percent).



Source: BSE

The BSE share index was one of the best performing major European stock exchange indices in the last two years (between 30/12/2015 and 29/12/2017) and produced the second largest growth worldwide.

Development of key price index (30/12/2015 - 29/12/2017)



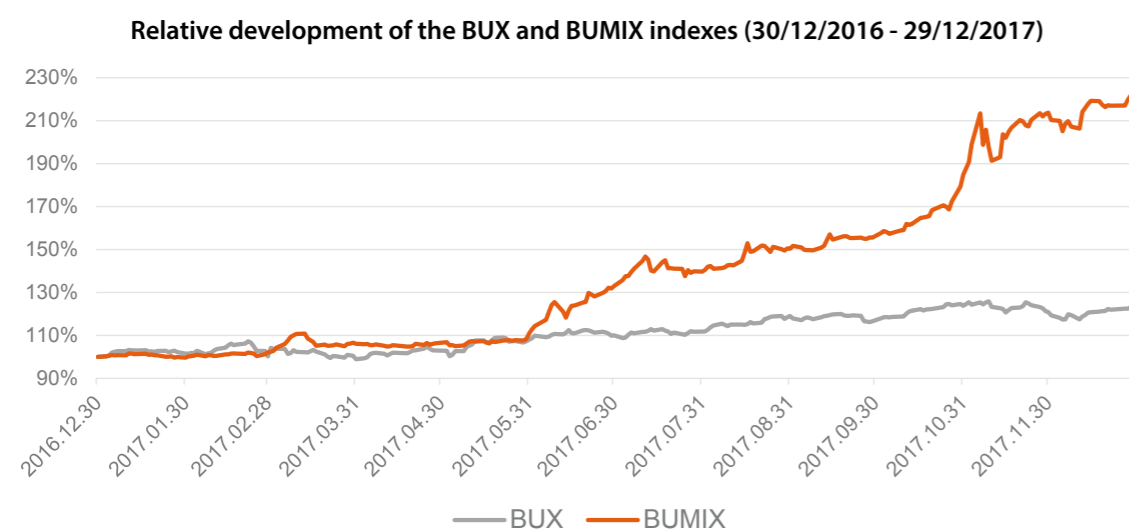
Source: Bloomberg

Roughly 93 percent of the BUX index continues to be made up of the stocks of four large domestic corporations. Their performance showed a mixed picture in 2017: Magyar Telekom closed the year with an 8 percent decrease, while the 9.2 percent price increase of Richter shares set a new historic record. OTP and MOL share prices could increase sharply this year again (by +27.6% and +16.5%, respectively), and the former also managed to break its own previous record, one which had stood for more than 10 years. Considering that these two equities represent a combined weight of nearly 64 percent in the share index of the Budapest Stock Exchange, their performance is reflected to a considerable extent in the index value.

Top 10 most-traded equities and their performance (30/12/2016-29/12/2017)						
Name	Turnover (HUF billion)	Quote (30/12/2016)	Quote (29/12/2017)	Change in quote (%)	Ranking by change in quote	Capitalisation (HUF bn)
OTP	1,133	8,400	10,720	28%	20.	3,002
MOL	606	2,579	3,005	17%	25.	2,462
RICHTER	488	8,210	6,780	9%	29.	1,264
OPUS	122	39	700	1,695%	4.	226
MTELEKOM	119	498	458	-8%	37.	478
APPENINN	60	230	719	213%	12.	29
KONZUM	58	51	3,434	6,633%	1.	72
CIGPANNONIA	22	218	488	126%	14.	35
FHB	21	495	741	50%	17.	49
OTT1	12	28	233	732%	6.	7

Source: BSE

However, the popularity of the shares of smaller companies was the biggest surprise of 2017. Not only blue-chips, but also the shares of ten small cap enterprises listed on either the Premium or the Standard category multiplied their values: Konzum, OPUS, KPACK, EHEP, Altera, Nordtelekom, BIF, Appenninn, CIG Pannónia and Csepel all achieved a quote increase over 100 percent. Konzum's performance was the most outstanding: the price of its equity security increased by more than 67-fold during the year, which puts this share among the top ones worldwide. The very same rally is reflected in the changes of the BUMIX index reflecting the performance of small and midcap listed shares: it increased by 122 percent, i.e. achieved a growth nearly 1.8 times of that of BUX in 2017.



As a consequence of the intensive increase in their quotes, smaller equity securities received significant attention from retail investors, and as a result, not only their price but also their traded volumes multiplied. Although the BSE equity turnover is still dominated by the four blue chips (OTP, MOL, MTELEKOM, Richter), their previous weight of over 98 percent dropped to 87 percent in 2017.

## OVERVIEW OF KELER'S ACTIVITIES

In 2017, the KELER Group continued its modernisation programme supporting the objectives set out in its strategy. This programme is primarily aimed at helping it grow from a domestic service provider into an innovative market player which plays a defining role at both the European and regional levels.

As an important step in fulfilling its business ambitions, on 7 February 2017, KELER joined the TARGET2-Securities (T2S) platform operated by the ECB. Using the functionalities accessible via the system, KELER became a participant in the single European securities settlement engine. The purpose of T2S is to make the settlement of securities transactions more secure and economical by integrating European settlement systems. As a result of KELER joining the platform, the international availability of Hungarian securities has improved, and KELER now settles securities deals for its partners made in euros through the Frankfurt-based platform.

Within the framework of last year's priority project, the forging of direct depository relationships has started on the markets identified in KELER's T2S Central and Eastern European strategy, the first step of which was to make operating preparations for the opening of the Polish link.

The services related to code issuing provided to domestic securities issuers also feature prominently within the business activities of KELER. Currently, as German WM Datenservice's partner, KELER participates in the issuing of LEI codes as an intermediary, however, one of the short-term goals of the company is to obtain the licence necessary for the issuing of these codes. Thus stakeholders could benefit from a full range of services, from code requests to code renewal.

The company continued developing its Trade Reporting (TR) services in 2017. By acquiring the official Registered Reporting Mechanism (RRM) role, the Company now – in addition to capital market transactions (EMIR) – assists numerous domestic and international clients by reporting energy market transactions (REMIT). With a view to further developing the service, a project was launched whereby KELER obtained the licenses necessary to meet the reporting and public disclosure obligations set out by the MiFID II/MiFIR legislative instruments, thereby making KELER's TR product range complete.

In September 2017, the Hungarian capital market, including KELER as well, reached a new milestone after submitting its application to the National Bank of Hungary for a permit required for CSDR (Central Securities Depositories Regulation) compliance. CSDR compliance is the pillar of the depository network of the future and thus also of the operation of the European Capital Market, which will become more flexible, more transparent and more secure as a result.

One of the most important goals of KELER KSZFI, KELER Group's clearinghouse and guarantee services company, continues to be the improvement of the international recognition of the company as well as becoming the most important regional clearinghouse by consistently providing high-quality services.

In order to achieve its most important strategic goal, the company participated in several international projects in 2017, as a result of which the company reached a significant milestone by signing an agreement with the Romanian commodities exchange (Bursa Romana de Marfuri, BRM) on the



launching of central clearing services for BRM platform clients. In addition, KELER KSZF is also in negotiations with Irish electricity sector stakeholders on the launching of financial clearing services for Irish and Northern Irish electricity market stakeholders in May 2018.

Euro-based trading on the CEEGEX regional gas exchange was successfully launched last October, where KELER KSZF provides clearinghouse and guarantee services for market players. As a result of euro-based trading and settlement, the exchange risk previously inherent in trading can now be avoided, and comparing CEEGEX and international market prices has become easier, which is an important step towards a single European market.

The launching of the Xtend market by the BSE for small and medium-sized enterprises – the settlement system of which is operated by KELER KSZF – was an important event on the capital market in 2017. The services provided for Xtend are in alignment with the expansion strategy of KELER KSZF, according to which the company is continuously looking for new target markets for its settlement services within Hungary and within the region.



## DEVELOPING ISSUER SERVICES, STRENGTHENING CORPORATE GOVERNANCE

The seamless provision of high-quality stock exchange services to issuers listed on the stock exchange continued to feature highly in the BSE's 2017 strategy, as did the retention and continuous improvement of issuers' satisfaction.

We strove to support the work of issuers by organising professional events and forums and by keeping them informed of relevant capital market developments in 2017 as well. In March 2017, the BSE held a professional forum on "The role and significance of investor relations in the lives of listed companies and stock exchange investors". Renowned capital market experts shared their experiences with the participants of the event, exploring the topic of investor relationship management from the perspectives of both investors and issuers through panel discussions. In July 2017, we talked about the new rules applicable to regulated real estate investment companies and the underlying opportunities during a business breakfast meeting with several renowned consultants and real estate market experts. Both events raised great interest.

In 2017, a video interview series organised by the BSE presenting the different listed companies through brief interviews was launched. The purpose of the series was to raise awareness of the stock exchange, promote stock exchange issuers, and to provide a realistic portrayal of the motivations leading to an IPO, as well as the benefits and consequences thereof. In the first film in the series, Gábor Bojár, founder and chairman of Graphisoft Park SE, shared the story of his company. This was followed by an interview with Gábor Zsámboki, CEO of ANY Nyrt. Next in line was Masterplast Nyrt with chairman Dávid Tibor and vice-chairman Balázs Ács presenting, followed by Dr. Gabriella Kádár's rendering of the background and most important milestones which led up to CIG Pannónia Életbiztosító Nyrt's IPO.

Developing responsible corporate governance in listed companies remained a key priority for the BSE this year as well. With support from the stock exchange, the Responsible Corporate Governance Committee completely reworked and updated its Code of Recommendations for Responsible Corporate Governance, which provides guidelines for corporate governance practices for issuers, followed by a knowledge check consisting of a set of questions, also published for investors in an accessible manner. The new recommendations are expected to be easier for issuers to handle and easier for investors to process, and will contain exactly the kind of relevant information that can provide an accurate snapshot of the governance systems of issuers, as well as their compliance with regulatory requirements and investor expectations. With the active participation of the BSE, the Committee compiled its monitoring report, by summarising the issuer reports published in 2017, which contains the statistical summary and evaluation of the issuer reports completed on the basis of the Recommendations.

## DATA SALES AND THE BSE

Stock exchange data are an indispensable source of information that support informed decision-making by securities market investors.

As rapidly developing technologies make it possible for everyone to work with data in a variety of new, interconnected ways, the same technological advancements are allowing professional capital market players to use stock exchange transaction data in new and creative ways to ensure the success of their investments. At the same time, retail investors active on equity markets are also following stock exchange price changes closely to ensure that their investment decisions are sound. Real-time securities stock exchange data, real-time index data and the historical data available through the different stock exchanges can be equally important, allowing investors to continuously follow order books documenting bids and offers as well as exchange transactions already concluded.

Subscriptions to real-time data by retail investors started to increase in the second half of 2017 due to higher cash market trading and the explosive growth in the trading volume of certain mid-cap securities traded on the BSE. At the same time, the number of professional investor subscriptions continued to fall, partly due to the continued consolidation of the banking investment sector, and partly due to the reduction in the number of broker users, as algorithms take over the role of brokers. The latter trend can be best described through the example of one of the largest investment banks, Goldman Sachs, which employed more than 600 securities brokers at the beginning of the 2000's in its New York head offices. Today, it only employs a few traders to monitor and supervise its mathematical program-powered trading activities. Thanks to the latter development, however, stock exchange data use through so-called applications has increased significantly. Applications supporting the development and implementation of risk management, portfolio evaluation systems and stock exchange trading strategies all show up as subscribers, as the new and growing data users of stock exchanges.

Stock exchanges can further benefit from this trend if they can produce information packages consisting of processed re-structured data originating from the raw trading data available to them, which they can then sell to investment service providers or other financial stakeholders.

In terms of revenue, data sales is key for most stock exchanges, including the BSE, where in recent years revenue from data sales has consistently exceeded one third of total revenues.

## Market and product developments

### NEW PROGRAMME TO SUPPORT THE SECONDARY MARKET OF SECURITIES ISSUED BY SMALL AND MIDCAP COMPANIES

One of the most important factors influencing the development of an efficient equity market is that investors are able to receive high-quality information and ratings on issuing companies on a regular basis, typically in the form of independent analyses created by investment service providers or analytics companies. In addition, having a consistent stream of bids and offers in the appropriate volume and size supporting continuous trading is also very important, as it essentially leads to the development of a liquid order book for each share.

In order to achieve this goal, the BSE launched a programme aimed at the improvement of available information and to support liquidity. As part of this programme, analyses of the shares of small and medium-cap corporations are published on the BSE's website, while investment service providers, in turn, support order book liquidity. In addition to the BSE website, the analyses are, of course, also available through the investment service providers responsible for preparing these analyses.

As shown by numerous international examples, stock exchanges are taking an increasingly active role in supporting the analysis of small and medium-cap companies. Stock exchanges on the markets of AlterNext (Belgium, Portugal, France and the Netherlands) offer significant discounts to brokerage firms providing analyses, and have also entered into cooperation agreements with different analytics companies. The Frankfurt stock exchange (Deutsche Börse) has also entered into a cooperation agreement with an analytics company for the analysis of the shares listed on its new market: Scale. The latter, launched in 2017, focuses on small and medium-sized companies, thereby helping investors get to know the companies better and facilitate decision-making. There are also several other examples outside Europe of stock exchanges actively helping markets become more informed: exchanges in Australia, New-Zealand, Singapore, Malaysia and India all have programs akin to the BSE's programme launched in 2017.

In addition to improving the availability of information, liquidity needs to be supported as well in order to ensure that the investor interest expected as a result of the analyses is backed up by a well tradable order book, thereby ensuring that transactions are concluded at a continuous and competitive bid-offer spread and on an appropriate scale.

It is an internationally accepted practice for stock exchanges to contract market-makers, who undertake to help the operation of the market by maintaining proprietary bids and offers. The presence of the market-maker during equity pricing also substantively reduces the so-called liquidity discount, which shows the implicit cost of closing a position based on whether the shortage of competitively priced and appropriately sized orders is on the buyer's or the seller's side. In the case of certain shares, this can be significant.



## ANALYTICAL COVERAGE IS INCREASING AND MARKET-MAKERS HAVE STARTED TO SHOW INTEREST IN SEVERAL DOMESTIC EQUITIES.

Therefore, supporting the analytics market and motivating market-makers is important for the BSE, as in addition to general market development effects, this could also generate higher turnover and ramp up investor activity in small- and medium-cap shares, which could, in turn, motivate new issuers to enter the market.

The market development programme launched by the BSE will continue until the end of 2018. Within the framework of this programme, the BSE will finance analytical and market-making services for the shares of 11 companies selected on the basis of the following set of quantitative criteria (e.g. size, turnover, free-float):

- Alteo Nyrt.
- ANY Nyrt.
- Appeninn Nyrt.
- Budapesti Ingatlan Nyrt.
- CIG Pannónia Életbiztosító Nyrt.
- Duna House Holding Nyrt.
- Graphisoft Park SE
- Masterplast Nyrt.
- PannErgy Nyrt.
- Rába Nyrt.
- Zwack Nyrt.

The analysis of the shares of the 11 participating issuing companies will be spread out between four different investment service providers. Analyses will be generated by Concorde Securities Ltd., MKB Bank Zrt, OTP Bank Nyrt and one foreign stock exchange member, Wood & Company, while market-making services will be provided by the service provider in charge of the analysis.

The first analyses and executive summaries – describing each of the participating companies – were released in late 2017. Additional regular analyses are expected after the publication of the quarterly results of the companies, while market-making activities are set to start in 2018.

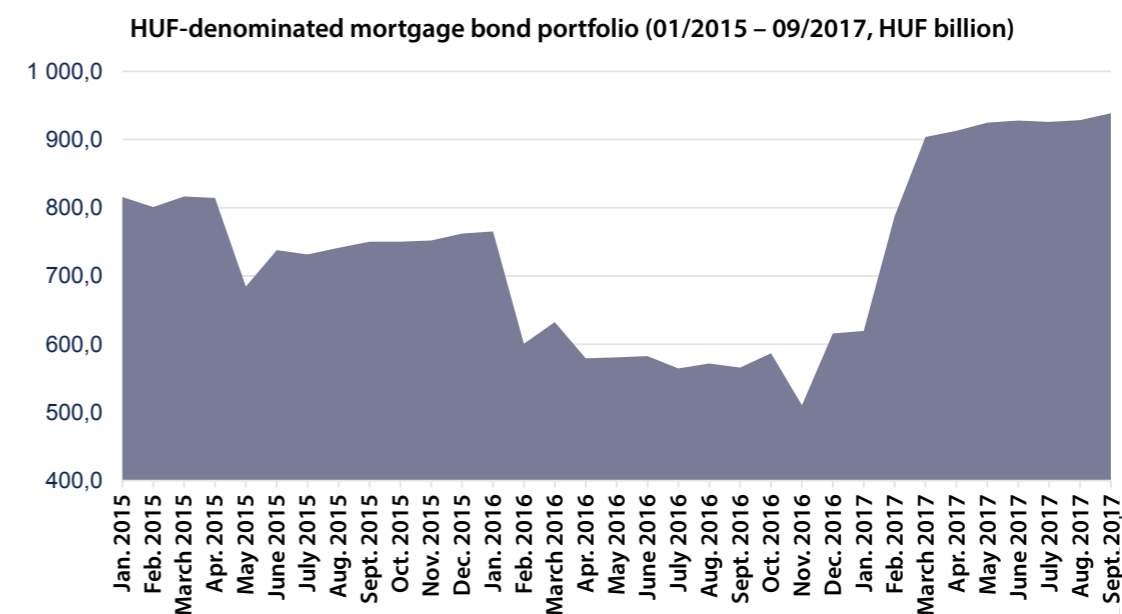
## NEW MORTGAGE BOND INDICES ADDED TO THE BSE'S INDEX FAMILY

Mortgage bonds issued by mortgage banks have always been important instruments on the domestic capital market. However, due to recent developments, the BSE has decided to take a more active role in the development of this sub-market.

After the conversion of domestic retail mortgage loans to HUF, the mismatch between the maturity of HUF denominated assets and liabilities has increased in the balance sheets of banks. At same time, the increase in real estate transactions has also translated into a significant uptick in retail housing lending over the last few years.

Loan re-financing by mortgage banks could be one of the means of raising long-term capital funds in the banking sector, for which mortgage banks generate the necessary funds by issuing mortgage bonds. Mortgage bonds in today's low domestic interest and yield environment could be primarily attractive to institutional investors, as they represent a relatively higher-yield and low-risk alternative on account of the underlying high-quality (selected) real estate collateral. The MNB has also expressed a preference for mortgage bond-based financing: in the interest of optimal maturity harmonisation, in 2015 the MNB introduced the Mortgage Funding Adequacy Ratio (hereinafter: MFAR) and related legislation, which sets out a minimum ratio of mortgage bonds for credit institutions within their liability structures.

As a result of the above processes, there has been an upward trend on the mortgage bond market, with three new mortgage banks created in 2016 alone, as well as reports of higher mortgage bond issuing volumes. These special bonds are typically floated on the Budapest Stock Exchange as well: currently the BSE's Debt Securities Section lists the bonds of Erste, FHB, OTP and UniCredit mortgage banks.



Source: NBH

The mortgage bond market is clearly in a growth phase with net public offering volumes expected to increase further. However, a transparent indicator adequately reflecting the status of the HUF-denominated mortgage bond market, one which could aid issuers and investors in terms of pricing and evaluating the performance of their mortgage bond portfolios has not been available until now, nor are there any regional indices that would follow mortgage bonds issued on the local market.

Due to the above, the BSE, in cooperation with the MNB, has created three new mortgage bond indices: one total return index: the BSE Mortgage Bond Total Return Index (BMBIX Total Return) and two yield indices: one for a 3-year term (BSE Mortgage Bond 3-Year Yield Index – BMBIX Yield 3Y) and one for a 5-year term (BSE Mortgage Bond 5-Year Yield Index – BMBIX Yield 5Y).

The index baskets contain fixed interest, HUF-denominated mortgage bonds, which must also comply with other special requirements specified in the relevant manuals, currently listed on the BSE, and are based on the proprietary market-making of mortgage bond distributors.

The (initially) monthly indices will begin being published on 1 December 2017 with an observational period of 6-12 months, during which the BSE and the MNB will further develop the methodologies of the indices based the feedback and practical experiences of market players (mortgage banks, banks, investment service providers, institutional investors), in order to be better aligned with market expectations and to enable it to eventually become an official financial reference indicator (benchmark).

## DOWNTURN IN BUX FUTURES MARKET TRADING HALTED

### MARKET-MAKING SYSTEM PASSES TEST

The BUX futures contract turnover grew significantly in 2017 compared to the previous year. This was partly due to the fact that, at the end of 2016, the BSE introduced a contracted market-making system related to the product, for which both the BSE and KELER provided market makers with financial incentives (transaction fee reimbursement).

During at least 70 percent of the trading conducted during the free trading period, market-makers were required to hold at least 50 contracts' worth of bids and offers at a maximum spread of 0.75 percent in the order books of the nearest two maturity months and the nearest December maturity.

The futures index market grew more dynamically than similar BSE products: in the January-November 2017 period total futures BUX trading grew by 77 percent from HUF 54.7 billion to HUF 97 billion compared to the same period in the previous year, while trading on the BSE's cash market grew by 18 percent, and equity futures trading increased by 34 percent.

Contracted market-makers (Erste Befektetési Zrt and OTP Bank Nyrt) represented 19 percent of the total BUX futures market, providing investors with substantial liquidity for continuous trading.

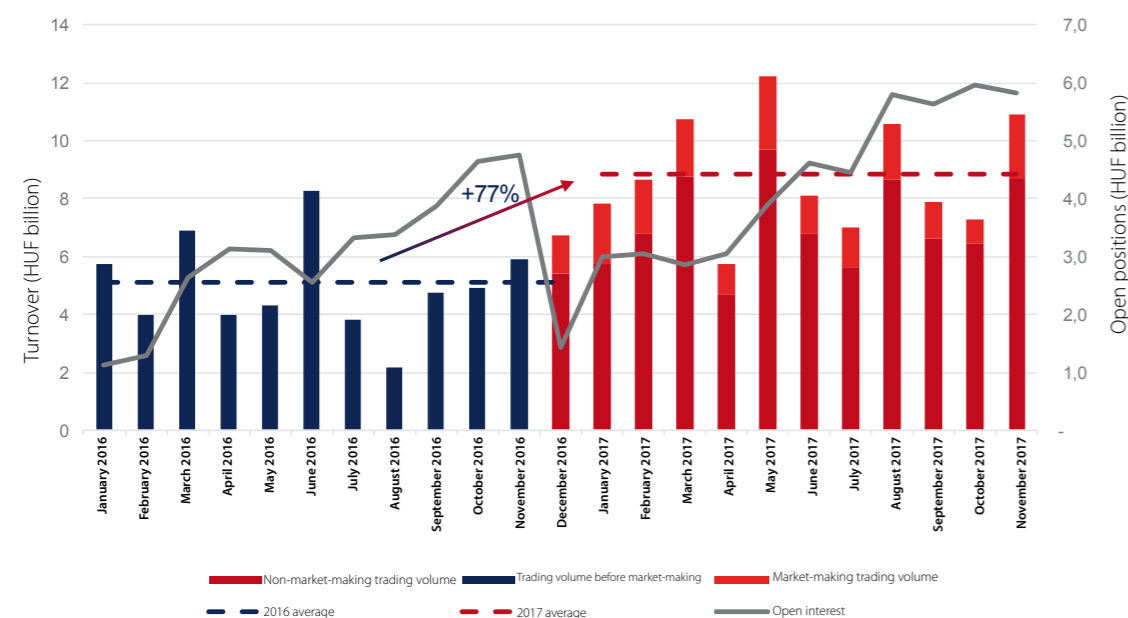
The order book has considerably improved as a result of the market-making: The Budapest Liquidity Ratio (BLM) – which measures the “hidden” (implicit) costs of a given financial instrument under pre-determined contract volume conditions and simultaneously executable bid-offer transaction margins – showed clear improvement. While in 2016 the BLM ratio was still 1.1 percent for December BUX maturities for a trade volume of EUR 40 thousand, in November 2017 the average margin at which similarly sized positions could be opened and closed simultaneously was 0.8 percent for December maturities.

In the meantime, the BSE carried other smaller product improvements. In the interest of concentrating supply and demand at a lower price level and to further increase trading activity in 2017, the tick size of BUX (Budapest Stock Index) contract maturities increased tenfold (from 0.5 points to 5 points).

Other positive developments for investors include the fact that as of 20 November, market-makers have committed to applying a lower margin of 0.5 percent instead of the previous 0.75 percent. Simultaneously, market-making for shorter maturities is no longer available, as our experience from the previous year shows that investor interest only materialised in the December maturities of the BUX.

The BSE and KELER have rated the market-making activity introduced at the end of 2016 as a success, therefore, the programme – together with the incentives provided to market-makers – was extended for an indefinite term.

## CHANGES IN BUX FUTURES TRADING VOLUME AND OPEN INTEREST



## MIFID II ENTERS INTO FORCE

The entry into force on 3 January 2018 of the amendment to the Markets in Financial Instruments Directive (MiFID II) – the directive regulating the complete European Union investment services market – and the related EU regulation (MiFIR) will require significant changes to the processes of the BSE, as a market operator, as well as the domestic investment service providers. Several IT developments had to be carried out in the trading and other systems of the BSE in order to ensure compliance. In addition, stock exchange regulations have also changed in line with the new processes, and a new data sales service will be introduced in accordance with the existing plans.

The following is a summary of the key changes:

### KEEPING MORE DETAILED STOCK EXCHANGE ORDER RECORDS

As of 2018, the BSE will be required to request and register additional information for orders and trading already in the order submission phase, the purpose of which is to help supervisory authorities in their investigation of potential cases of fraud (insider trading, market manipulation). Considering that this data is standardised at the EU-level, it will be much easier for authorities to compare the databases of trading venues and investment service providers even at the international level. Main new data requested: identifier of the stock exchange member's client, specification of persons and algorithms responsible for investment decisions and the execution thereof.

### PARTICIPATION IN THE PUBLICATION OF OVER-THE-COUNTER TRADING DATA

In the interest of improving the transparency of trading, MiFID II requires investment service providers to publish the most important over-the-counter market trading data of financial assets, similarly to how trading venues already publish the most important order and transaction data. This extension of the publication mechanism to OTC transactions will be implemented through the Approved Publication Arrangement (APA) framework. This means that an APA-licensed institution will ensure that the data it receives from investment service providers is published as close to real time as possible for subscribers, and that delayed data also be available to market players free of charge. According to the plans, beginning in 2018 the BSE will start cooperating with KELER, as an APA service provider in publishing the data, and will complement its data sales product range with the data it has collected.

### MONITORING AND PREVENTION OF IRREGULAR TRADING CIRCUMSTANCES

MiFID II places great emphasis on ensuring that trading venues and trading stakeholders (stock exchange members) have IT systems and processes that are stress-tolerant and able to screen out irregular activities. In this regard, the biggest challenge lies in algorithmic (investment decisions made

without human intervention) and high-frequency trading activities (HFT, submitting an exceptionally high number of orders or modifications per second with few transactions actually concluded). The stock exchange must be able to clearly identify algorithmic trading activity and must continuously measure the capacity at which trading systems are operating in terms of per second order numbers, and the ratio of orders submitted and transactions concluded per stock exchange member. If an irregular circumstance is noted, the necessary measures must be taken to ensure, among other things, that the BSE is able to suppress or stop the problematic order process. The specification of the minimum value of tick sizes per share series depending on the liquidity category and price of the given share is also designed to further regulate HFT activities. In the interest of the more accurate monitoring of HFT (High Frequency Trading) activities, starting from 2018, time stamps must be accurate to at least the millisecond. In order to be able to screen out potentially erroneous orders (typos, faulty investor algorithm logic), the Exchange applies protective mechanisms within its trading system that are able to screen out unusual price changes, order values and quantities.

#### NEW UNIFORM MARKET-MAKING RULES

The BSE has a history of operating market-making systems, the purpose of which is for stock exchange members to ensure secondary market liquidity in certain product groups (Budapest Stock Index futures, structured products, BÉTa Piac, BUX ETF) based on special contracts. Starting in 2018, MiFID II uniformly sets out the minimum requirements and special rules of market-making activities. The BSE has developed a new public market-making regulation in alignment with the new legislation.

#### REGULATED REAL ESTATE INVESTMENT COMPANIES (SZITS) GO PUBLIC ON THE STOCK EXCHANGE

Creating a market-friendly regulatory environment was a key priority of the BSE's strategy launched in 2016. A key step of this strategy was the resolution of the regulatory issues surrounding regulated real estate investment companies (SZITs). As a result of the expert preparatory work of the Exchange, market players, and the Ministry for National Economy, several provisions of Act CII of 2011 were amended in positive ways in several rounds throughout the course of 2016 and 2017.

The SZIT form of operation is only feasible if the companies are listed on the stock exchange. The reason why it is such an attractive form of operation is that it provides enterprises with an exceptionally preferential tax status (corporate and local business tax exemption, lower duties, etc.). It also comes with other advantages in addition to stock exchange listing: liquidity, recognition, better reputation, and continuous access to funds.

From a demand perspective, regulated real estate investment companies can be an exciting investment opportunity in Hungary, for which the continuous growth of the real estate market provides an excellent basis. On the one hand, these can provide alternatives to direct purchases of real estate for investment purposes for private investors (which would also allow for smaller amounts to be invested, therefore resulting in more easily accessible investments); while on the other hand part of the retail investments currently tied up in open-ended funds can be channelled into this new form of investment. At the same time, institutional investors could also find the new regulated real estate company form to be attractive.



Following the positive regulatory changes, market interest in the new corporate model grew. During the year, two companies were transformed into a regulated real estate investment special-purpose company (the “anteroom” leading to the SZIT): Graphisoft Park SE, and Budapesti Ingatlan Nyrt. Both issuers are required to transform into a SZIT by 31 December 2018 from their current special-purpose company form. The transformation of these two issuers within such a short timeframe from the finalisation of the legislative amendments is a clear sign that these regulated real estate investment companies are likely to become popular. It is not surprising then that companies currently not listed on the stock exchange are also expressing interest in this new corporate form and that new market entrants are expected to appear in 2018. What is important to note here, however, is that although operating as an SZIT offers vast advantages from a tax liability perspective, preparing for the transformation and the company transformation itself are both exceedingly complex processes, and may take up to a year or two.

The Hungarian SZIT regulations are advantageous from a regional perspective as well, which is why it is expected that foreign companies will also show interest. The tax benefits have been extended to all companies incorporated within the territory of the EEA through the new legislation (as permitted by international taxation regulations), which could primarily be an advantage for potential issuers having a real estate portfolio at least partially located in Hungary.

## XTEND PLATFORM LAUNCHED

The development of the capital market eco-system among medium-sized companies is a key element of the BSE’s 2016-2020 strategy. To that end, in 2016 the BSE decided to create a new market, Xtend, designed to support medium-sized companies. Its infrastructural and regulatory background was completed by the Exchange in 2017.

During the set-up of the regulatory framework, the Exchange was in regular talks with market players and the supervisory authority in order to make sure that the new rules set for implementation are clear and supported by all stakeholders.

The BSE’s tasks during the creation of the medium-sized company platform were manifold: to create a marketplace for new investment opportunities for investors; ensure prudent operations in accordance with the supervisory framework of the MNB; and create a market-friendly eco-system that is beneficial for the Nominated Advisors, or NOMADs (we will say more about them below) as well as the issuers.

The BSE’s goal with creating Xtend was to extend the range of potential issuers and investors. The Exchange wants to reach this goal by, on the one hand, applying somewhat simpler conditions to issuers compared to the regulated market, and, on the other hand, by ensuring that investor protection factors are not guaranteed by the authorities (as required by law) but also through the nominated advisor system. This means that with the Xtend market, the BSE wants to open its doors to medium-sized company issuers and to investors looking to invest in medium-sized companies, and it is committed to supporting the development of the necessary eco-system in cooperation with the market.

Examples from abroad, the BSE’s experiences with small- and medium-sized companies listed in the Standard and T categories, and the BSE’s issuers’ meetings have all clearly shown that it is the financing function of the stock exchange that is of primary importance to medium-sized issuers, while its trading function takes a backseat. Its significance, however, can grow with increasing shareholder numbers in a company. As a result, the Xtend market has a strong focus on the primary market and on companies’ efforts to raise funds.

The MTF form of raising capital is typically a different approach compared to the more traditional IPOs generally used for new regulated market listings. In the BSE’s opinion, in order to avoid the administrative and financial burdens associated with initial public offerings, companies will primarily issue shares privately and will simultaneously list their shares “silently” on Xtend, without an initial public offering. In the case of private listings, the number of private investors allowed to subscribe to the securities offered is either limited to 149 or extended to an unlimited number of qualified investors.

Xtend market issuers are typically dynamically developing medium-sized companies that are willing to undertake the obligations stemming from being a traded company, but are not yet mature enough in terms of development and financial standing for a large-scale public offering. In the period following a listing that does not involve an IPO, issuers can become acquainted with operating as a traded company, while investors also have a chance to get to know the company better, thereby improving the chances of success of a subsequent public offering. Moreover, the reputation value of having a stock market presence can also be exploited, which strengthens the visibility of the issuers and their brand value. This could potentially improve their business activity (e.g. better price and non-price related conditions for suppliers and customers) and ultimately the financial performance of the company.

Both traditional and new investor groups can become involved in financing:

- Professional investors, which can be best compared to venture capital firms that might consider the shares of smaller stock exchange issuers interesting, within the framework of their business activity, and usually support the capital-raising and listing process as lead investors.
- In the course of public offerings, SME exposure is undertaken for portfolio diversification and yield enhancement purposes by private investors, typically more affluent households, premium and private banking clients with better risk-taking abilities.
- Institutional investors such as pension funds and insurance companies have also been known to take on medium-sized company exposure in liquid shares on the secondary market, typically for diversification purposes.

The BSE officially announced the launching of the new Xtend platform at its BSE50 Medium-sized Company Summit conference held on 20 September 2017, and published the list of nominated advisors operating on the market. That was when Xtend’s website went live as well: a website that provides comprehensive information and content for professional audiences, such as potential issuers and investors.

In 2017, the BSE was involved in ongoing talks with market players to ensure the appearance of those first issuers on the market. It is our opinion that with the launch of the National Stock Exchange Development Fund and the Mentoring programme, the first issuers will enter the Xtend market in the first half of 2018.

## A developing capital market ecosystem

### DEVELOPING PARTNERSHIPS

In 2017, BSE staff continued the building of the ecosystem described in the Strategic Report published in 2016. The range of our efforts made towards reaching that goal, however, has been considerably extended compared to 2016, a description of which is presented below.

Following the 150 acquisition meetings conducted in 2016 we engaged even more actively in finding a connection with market players and enterprises in 2017, as a result of which we conducted more than 200 meetings to that end in 2017. This year, we have already had several meetings with stakeholders on the practical details of stock exchange listings and related technical issues, which shows that we were successful in bringing medium-sized companies closer to capital market financing, and that the number of companies showing active interest in the stock exchange is increasing. As a result of the meetings conducted, it is our expectation that the first medium-sized enterprises will enter the BSE's new market, Xtend, in the first half of 2018.

In addition to conducting meetings regarding acquisition, in 2017 the BSE entered into cooperation agreements with several domestic and international organisations. The first such agreement was concluded in January 2017, signalling the beginning of the cooperation between the BSE and the Bank of China in order to raise the awareness of Chinese investors of the Hungarian capital market, and to allow Chinese stock exchange products to become listed on the BSE.

In the second half of 2017, the BSE signed cooperation agreements with the Confederation of Hungarian Employers and Industrialists (MGYOSZ), MFB Invest, the Hungarian Chamber of Commerce and Industry (MKIK), and the Hungarians on the Market Club (MAPI). The most important purpose of the agreements was, in addition to the development of the capital market, to add to companies' existing capital market and financial literacy, to increase the role of the stock exchange in the capital-raising activities of companies and the asset placements of investors. Meanwhile, the identification and selection of companies that are mature enough for the stock exchange, and supporting their preparation for stock exchange listing were also priorities.

The building of the capital market eco-system is a complex task with many concurrently moving parts to be coordinated with a number of stakeholders. In order to support its establishment and development, the BSE participated in many events in 2017 as well, as a sponsor or presenter, and we have also organised a number of our own professional industry events. We had our own professional forum on investor relations, on the SZIT regulations, and one organised together with Codex Zrt. We organised ELITE Business Breakfast meetings as well. During the year the BSE organised four Professional Investor Forums, where we had two issuers introduce themselves to institutional investors and private bankers each time. We were active participants of this year's meetings of the Hungarian Economic Association (HEA), the Venture Capital Summit, as well as the SME Cocktail event. We attended the spring and autumn

professional events of the Hungarian newspaper Világgazdaság, and conferences organised by the internet portals Napi.hu and Portfolio.hu. Our experts attended the international investors' summit organised in Stegersbach, Austria. In the autumn of 2017, the Chairman and CEO of the Exchange presented at Figyelő's TOP200 event on the economic significance of the capital market and how to leverage the potential of the stock exchange to promote growth and success.



The Exchange organised one of the most anticipated events of the year on 20 September 2017, the BSE50 - Medium-sized Enterprises' Summit. Central Bank Governor György Matolcsy gave the keynote address opening this event attended by over 300 participants. The most important topic of this year's conference related to the challenges of turning into a medium-sized company into a large company, and the responses that can be given to those challenges.

It is difficult to provide a comprehensive list of all the forums and conferences that took place during the year, but the number of events shows that maintaining a good relationship with the owners and managers of medium-sized companies, the representatives of already listed companies, the executives of domestic banks, investment service providers, and the partners and experts of financial and tax consultancy firms as well as the development of the stock exchange ecosystem are key priorities for the BSE.

## IDENTIFYING IPO-READY COMPANIES

In the first half of 2016, based on balance sheet and profit and loss statement data, the BSE developed a special qualification and scoring methodology to identify IPO-ready companies. Based on the quantitative data, our staff identified 300 companies at that time that could be destined for stock exchange success in the future. The BSE is planning to perform the same analysis based on more recent financial statements. For this purpose, we have already had our company information system partner perform a quantitative screening of companies. Based on the quantitative data, in 2017, our partner identified over 400 companies that could be successfully listed on the stock exchange. This also supports our assertion that the Hungarian economy is still on a growth path and is operating successfully.

In addition to the above scoring analysis, the Budapest Stock Exchange is also working towards identifying IPO-ready companies through cooperation with market partners. Organisations that entered into cooperation agreements with the BSE (such as, for example, the Confederation of Hungarian Employers and Industrialists-MGYOSZ), at the recommendation of the Exchange, conducted surveys among SMEs on the IPO-readiness of businesses. The surveys revealed that there are 203 small or medium-sized companies in the country that would be able to meet IPO criteria. These companies generate a turnover totalling HUF 1,000 billion every year, and operate with an ROA of 8-10%. In addition to these organisations, we are also in touch with numerous advisors and banking partners and regularly consult on potential exchange issuers. In cooperation with these entities, we have organised numerous events this year, including many business breakfasts, and plan to continue doing so in the future. It is at these events that we have the chance to talk to companies about the opportunities provided by the Exchange, such as the ELITE Programme.

The most important experience revealed by these discussions and meetings is that equity financing solutions are relatively unknown among Hungarian businesses at the moment. At the same time, during these discussions and after presenting the various opportunities, we typically receive positive feedback, mostly showing that the leaders of these companies have clearly become more open to the underlying opportunities of equity financing. Usually, we are then able to continue this developing this line of joint collaboration with them. Based on this, we can state that in terms of attitude and open-mindedness, we encountered many IPO-ready businesses in 2017 as well.

Identifying IPO-ready companies is an exciting task, as we encounter and observe many exceptional and fascinating stories. It was as a result of this that in 2016, for the first time, the BSE published "BSE50 – 50 domestic company success stories". With the publication, our objective was to present these interesting and inspirational stories to the public, thereby also helping these companies gain widespread recognition. Given the success of the publication and the countless other interesting stories we encountered, the BSE released the publication in 2017 as well, presenting another 50 companies. The strength of these companies also shown by the fact that their average growth rate in 2016 was more than four times that of the growth of the Hungarian economy. These inspiring company stories can, therefore, truly serve as examples for all Hungarian business owners and company directors with a vision of dynamic growth.

It is no secret that the Budapest Stock Exchange is seeking to make the relationship between BSE50 companies even closer by implementing professional programmes and events in the future.

Companies presented in the BSE50 publication in 2017

Alföldi Tej Kft.	HAJDU csoport	Oázis Kertészeti Kft.
Alpha-Vet Kft.	iData Kft.	Opten Kft.
BIGPRINT HUNGARY Kft.	ingatlan.com Zrt.	Qualysoft Informatikai Zrt.
BILK Logisztikai Zrt.	Innomed Medical Zrt.	Rábalux Zrt.
Borsodi Műhely Kft.	Inwatech Kft.	Salgglas Zrt.
Café Frei Kft.	Jullius-Globe Kft.	Solvo Zrt.
Carboferr Commodities Ltd.	Karsai csoport	StarSchema Kft.
Cooptech Kft.	Kedvenc-JM Kft.	Szatmári Kft.
Csabacast Kft.	KOMETA 99 Zrt.	Tarr Kft.
Cserpes Sajtműhely Kft.	Lakics Gépgyártó Kft.	Terrán Tetőcserép Kft.
Detki Keksz Kft.	Master Good Kft.	Trans-Sped csoport
Diagon Kft.	Megakrán Kft.	UBM Csoport
Felföldi Édességyártó Kft.	Mercarius Kft.	Vajda Papír Kft.
Future FM Zrt.	Microsec Zrt.	Visual Europe Group
GIA Form Kft.	Mirelite Mirsa Zrt.	Waberer's International Zrt.
Graboplast Zrt.	Mito csoport	XAPT Kft.
Gránit Pólus Zrt.	Nord-Paper Kft.	



## MILESTONES OF THE NOMAD COOPERATION

After plans in 2016, the institution of Nominated Advisors or NOMADs, became a reality in 2017, and is today one of the distinguishing features of the Xtend market launched in September. This is a new type of instrument which supports both investor protection aspects and the professional functioning of companies on the exchange.

Nominated Advisors have a dual function: on one hand, they assist in the company's preparation from the very start of the IPO process, and on the other, they provide continuous support to issuers already admitted in the interest of compliance with applicable rules. Thus, the activities of Nominated Advisors also create value for investors. By, among other things, monitoring companies on an ongoing basis, their presence greatly increases the security of the market and thus also serves investor interests.

Nominated Advisors receive remuneration from issuers in exchange for their activities performed in relation to the admission of issuers and their operation on the exchange, in particular for activities such as:

- Prior to floating of the issuer, their task is to carry out a due diligence screening of the issuer. They primarily perform this themselves, but during this process they can also rely on the opinion and findings of other advisors (in particular auditors and legal counsel). The Nominated Advisor then participates in the preparation of the Information Document or the Prospectus, and they also advise issuers on setting the admission price.
- The Nominated Advisor has the obligation to continue supporting the issuer even after admission to ensure ongoing compliance with Xtend regulations, in particular with regards to the performance of the issuer's disclosure obligations.
- The Nominated Advisor is obligated to promptly notify the issuer of any potential infringements or violations of regulations committed by the issuer and of which the Nominated Advisor becomes aware, and must consult with the issuer to remedy these in order to restore lawful operations, or, if such infringement is not resolved within a reasonable period of time, the Nominated Advisor must notify the market operator thereof without delay.
- The Nominated Advisor must also cooperate with the market operator on an ongoing basis and provide the information requested by the market operator within a reasonable period of time.

Cooperation with potential Nominated Advisors commenced during the formulation of Xtend market regulations, and in the autumn, we successfully concluded agreements with 13 NOMADs. At the end of 2017, following the conclusion of the agreements, the Exchange consulted separately with each NOMAD representative on the principles of common market building, potential candidates and cooperation frameworks. The BSE will continue to build the Xtend market and the acquisition of companies hand-in-hand with NOMADs in 2018 as well.

## LIST OF NOMADS:

BDO Corporate Finance

Concorde MB Partners

Equilor

Erste Befektetési Zrt.

Grant Thornton Corporate Finance

Heal Partners

Invescom

KBC Securities Hungary Branch Office

MKB Bank

OTP Bank

Unicredit Bank Hungary

RSM Hungary



## ELITE PROGRAMME - IN PARTNERSHIP WITH THE LONDON STOCK EXCHANGE FOR SMES

In order to set up a truly well-functioning SME market, the participation of companies in an appropriate quantity and quality within a healthy ecosystem, in which the Exchange plays an active – indeed, a proactive – role. An important component of this is the ELITE Programme, which supports businesses with substantial growth potential that are looking to raise external funds.

Thanks to the cooperation agreement concluded in 2016 between the BSE and ELITE S.p.A, a programme of the London Stock Exchange, the ELITE Programme has been accessible to Hungarian companies as well since April 2017. By implementing ELITE in Hungary, the objective of the BSE is to realise a comprehensive programme to develop the capital market and the stock exchange, which contributes to the growth and increased competitiveness of the Hungarian economy in both the medium and long-term.

Originally launched in Milan in 2012, the Programme was taken over by the London Stock Exchange in 2014 and today includes more than 600 businesses, the majority of which are in Italy and the UK. However, ELITE is steadily expanding towards international companies, and the number of businesses joining from various European countries is continuously increasing. The programme continues to evolve as far as its geographic reach, topics and structure are concerned.

In addition to offering high quality training, our experience has shown that the Programme's great added value is giving participating companies the opportunity to join a large international community. In addition to London, ELITE members also have the chance to reach other investors or advisors active in other international markets. Moreover, they also get the opportunity to meet and converse with businesses at similar stages in their life-cycle, operating under similar conditions. Thanks to their comparable circumstances, these companies – even if they work in entirely different sectors – face similar challenges, and so together they are able to come up with the best solutions. This is precisely where ELITE's strength lies.



The strength of the Programme's community and the business generation opportunities available are well reflected by the fact that of the 600 businesses that had participated as of October 2017, 184 have concluded a total of 377 transactions, the majority of which were the establishment of joint ventures or mergers, the raising of venture capital or private equity. These companies also actively exploit the opportunities offered by capital markets. In October 2017, 30 ELITE companies had issued corporate bonds of a total value of EUR 920 million, while 10 companies were listed on a stock exchange, with IPOs of a total value of EUR 150 million.

Within the context of the BSE-ELITE cooperation, seven Hungarian companies joined the programme in April 2017, and went on to complete their third session in London in November 2017. Participants report that, while the training component of the programme is of an exceptionally high standard, its greatest value lies in the fact that participating companies become part of a community and are able to share their experiences with one another.

The BSE added further modules to the programme that is essentially centred in London, in order to provide Hungarian businesses with practical and up-to-date information on the Hungarian regulatory environment, Hungarian investor expectations and other country-specific topics.

The ELITE Programme is linked to the establishment of a successful SME market through the following impacts:

1. It urges participating companies to create a diversified financing structure through an educational, business development and networking programme. This allows for an increase in the number of companies that make it into the Exchange's catchment area.
2. On the long term, the Programme contributes to increasing the number of quality businesses that do not just become familiar with the role of equity financing and the stock exchange, but can even in given cases give serious thought to utilising these markets down the line.
3. Through the Programme, medium-sized companies are able to better prepare for a potential capital market transaction, which in turn can also contribute to creating a healthy market.

In 2017, the Budapest Stock Exchange conducted active acquisitions in order for Hungarian companies to join the programme, as part of which the BSE:

- organised 11 business breakfasts;
- held over 100 personal meetings and discussions;
- established new cooperations with professional organisations and commercial banks, and reinforced existing relations.

In addition to the above, the BSE promoted the benefits offered by ELITE in numerous interviews, presentations, events and media appearances. Thanks to our events, meetings and letters, approximately 150-200 companies became aware of the Programme, as a result of which:

- 7 companies joined the community in April,
- 3 companies joined the Programme in November,
- and numerous companies indicated their intention to join in the future (the next group is set to launch in April 2018).

At the Medium-sized Enterprises' Summit held on 20 September 2017, the Exchange set up a separate ELITE section presenting the experiences of participating businesses.

According to the feedback received from these meetings, events and presentations, businesses are essentially open to the opportunities provided by the Programme. Their motivation to take part in the programme primarily depends on how timely it is for them to integrate this type of programme into their company's strategy. At the same time, it should also be emphasised that these meetings also generated dialogue between medium-sized companies and the stock exchange. At these meetings, the representatives of the stock exchange became aware of the given company's problems and challenges, which could also contribute to building an SME market at some later point.

In addition to the above, we commenced joint work with profitable and quality companies that may eventually form the core of a successful SME market.

As a result of these meetings, the companies found that the Programme was useful for them not just on account of its educational components, but also for many other reasons:

- meeting with other similar firms holds underlying business development opportunities,
- they can present their companies to a group of potential future investors and thus prepare for the challenges of investor relationship management,
- as part of the programme, they can acquire organisational development know-how that can contribute to increasing corporate efficiency,
- financing opportunities allow for diversification.

All in all, the Budapest Stock Exchange expects the ELITE Programme to attract a high number of potential issuers into the Exchange's catchment area, ones who can potentially be admitted to the Xtend market as relevant market players. In addition, as another important aspect, this allows quality companies to approach the Exchange, and to make a well-grounded decision to reach the level of a capital market transaction. This creates and opportunity for both the issuer and the investor to find what they are looking for and what to expect down the line.

## CONTACTS WITH VENTURE CAPITAL AND PRIVATE EQUITY FIRMS

The Stock Exchange believes that boosting the Hungarian capital market is only possible through cooperation, and by joining forces with market players. The meetings/events of the past year have confirmed to the Exchange's experts how crucial it is to strengthen and develop the ecosystem in which the Exchange can perfectly fill the role of being a capital market catalyst – a role to which it aspires in line with its new strategy. It is the BSE's explicit objective to become a relevant alternative in the Hungarian transaction and financing arena. To this end, in 2017 the Exchange established and reinforced its cooperation with the Hungarian venture capital community.

Exchange experts held close to 50 consultations with leading players in the venture capital market, primarily in relation to setting up and developing the operational framework and products sheet of the National Stock Exchange Development Fund.

The Hungarian Private Equity and Venture Capital Association (HVCA) is one of the key actors in the country's venture capital sector. In 2017, the staff of the BSE was actively involved in the professional work of the HVCA's Education and Legal Committee. In addition, as part of a successful business breakfast, the BSE held a presentation for HVCA members on the potential benefits and challenges presented offered by the stock exchange, as well as on the concept of the National Stock Exchange Development Fund.

Experts of the Exchange nurtured relationships with the venture capital sector at numerous other events as well, of which attendance at the Venture Capital Summit or the cooperation with the Hungarian Investment Promotion Agency (HIPA) merits mention. In both the spring and the autumn sessions, BSE associates lectured at HIPA's Capital Academy on capital-raising know-how and initial public offerings.

## International relations

### ROADSHOWS AND INTERNATIONAL CONFERENCES IN 2017

After last year, the BSE once again ended an active year in the international arena as well. We revisited the conferences and roadshows that we deemed to be successful in 2016, but 2017 also saw us go to numerous new locations.

We kicked off 2017 by going to Warsaw in January, where our blue-chip mid-cap companies had the opportunity to meet up with Polish institutional investors. Due to regional proximity and the similarity of the structure of the economy and businesses, Polish portfolio managers are outstandingly active on and highly familiar with the Hungarian capital market. In Zagreb, the BSE visited Croatian pension funds in order to familiarise them with the BSE's strategy and the opportunities presented by the Hungarian market. Based on fund assets totalling EUR 11 billion, the small size of the local capital market and the proximity of the two countries, companies trading on the Hungarian market would be the logical choice for Croatian asset managers when making their investment decisions.

In April, the Budapest Stock Exchange attended the Tradetech conference, where global brokerage firms, stock exchanges and infrastructure providers held meetings and presented professional programmes on current market trends.

In May 2017, the BSE received an invitation to the Belt and Road Forum in Beijing, where we assessed interest in the Hungarian market among the largest Chinese investment service providers.

At the beginning of the summer, we returned to Paris for the Midcap Event, a two-day event at which we primarily promoted non-blue-chip stocks among institutional investors, focusing on mid-cap businesses from France and the Benelux states.

In the autumn, we participated at Erste Group's investor conference held in Stegersbach, where we met with institutional fund managers. This was followed by CEE Trading in Warsaw and the CFA capital market conference in Sofia.

In November, we again joined forces with JP Morgan to host the Hungarian Investor Day in London, where the largest Hungarian public companies had the opportunity to meet institutional fund managers. The event was launched with presentations on macro-related topics by the National Bank of Hungary and the Ministry for National Economy. The event was expanded from the previous year and Hungarian Investor Day 2017 became Czech and Hungarian Investor Day with the involvement of companies from the Prague exchange. We ended the season at Wood's Prague conference, which was attended by nearly 190 regionally-oriented institutional investors.

- January 2017 – Warsaw Road Show
- January 2017 – Zagreb
- April 2017 – Tradetech conference
- May 2017 – Belt and Road Forum
- June 2017 – Paris Midcap Event Road Show
- October 2017 – Stegersbach
- October 2017 – Warsaw CEE Trading conference
- November 2017 – Sofia CFA conference
- November 2017 – London JP Morgan Czech and Hungary Investor Day
- December 2017 – Wood Winter Wonderland, Prague

## WORLD EXCHANGE CONGRESS IN BUDAPEST

After last year's World Exchange Congress in London, between 29-30 March 2017 it was the turn of the Hungarian capital and of the Budapest Stock Exchange to host the Congress frequently called the general assembly of global stock exchanges. The capital market conference drew 225 visitors to the Hungarian capital from 64 countries. The two-day event – held with the participation of global stock exchanges, clearing houses, and the leaders of service providers linked to these exchanges – dealt with current capital market trends, regional stock exchange cooperation and the innovations of next-generation exchanges.

Capital market executive experts visiting Hungary and attending the event discussed capital markets, as well as the key trends and challenges impacting stock exchanges. Participants included representatives from the management of the largest global exchanges, such as Nasdaq, Deutsche Börse, the Shanghai Stock Exchange or the Japan Exchange Group.

Attendees discussed the forms in which cryptocurrencies appear on the capital market, their relationship with stock exchanges, their potential impact on the future, as well as blockchain technology, which is driving innovation not only in trading, but also particularly in post-trade structures.

Opportunities for cooperation between stock exchanges were also discussed, both at the regional level, based on geographical proximity, and via shared IT systems. Given the event's global nature, in addition to Central Eastern Europe, the exploration of forms of cooperation with the Middle Eastern and South American regions was also on the agenda. Numerous lectures and panel discussions focused on exploiting the possibilities underlying data generated and used by capital market infrastructures, as well as the topic of cyber security.

Of course, there was also much talk of the traditional challenges of regulated markets, namely how stock exchanges can address even more companies and generate IPOs, as well as how markets could increase liquidity. An always pertinent topic in the industry, the MiFID II regulation impacting European markets was also discussed, while participants also debated the expected threats and positive impact of the regulation at a roundtable discussion.

While the BSE was actively involved in the global dialogue between stock exchanges, its role as a host provided an ideal opportunity for the Hungarian exchange to familiarise international participants of the conference with the capital market development objectives set out in the BSE's new strategy.

## AT THE GATES OF ASIA

In 2017, the BSE concluded two strategically important agreements which will enable the Budapest Stock Exchange to expand its range in the future with products linked to the Chinese capital market.



In January, the Budapest Stock Exchange signed an agreement with the Bank of China, in which the parties committed to developing common CNY-denominated products linked to the Chinese capital market and which can be floated on the BSE. In addition, the BSE will join forces with the Bank to promote the utilisation of Hungary's RQFII quota, which can be used for investment purposes on the Chinese market. Moreover, the BSE will also be introducing its blue-chip issuer companies to potential Chinese institutional investors, thereby diversifying the range of foreign investors present in the Hungarian market. The BSE and the Bank of China will also take joint steps to ensure that Chinese companies active in Hungary and the Central Eastern European region choose the Hungarian capital market for the purpose of raising capital.

In May, the Hungarian exchange concluded an agreement with the Shanghai Gold Exchange, where the parties committed to developing common capital market instruments which can be floated in Budapest. The Shanghai Gold Exchange is one of the key locations of the global exchange trading of gold.

Thanks to the two MoUs (Memorandum of Understanding), the parties are actively engaged in efforts to ensure that the first products are rolled out as soon as possible.

The agreements of the Budapest Stock Exchange with the Bank of China and the Shanghai Gold Exchange are harmonised with the Chinese region's Belt and Road Initiative, of which Hungary is also an active participant.

## CROSS-LISTING AND DUAL-LISTING

As part of the new strategy announced last year, the BSE has significantly increased its international presence. We organise roadshows and attend conferences in order to promote Hungarian issuers among foreign investors, we negotiate with foreign exchanges and international organisations in an attempt to establish cooperation and also in order to “import” the best international examples to the Hungarian market. However, we have another important goal, namely, for the BSE to maximise the capital market presence of Hungarian companies, to also be receptive to foreign businesses and to seek out companies that could benefit from the opportunities presented by the Hungarian market. These international companies may be businesses that are not listed on any stock exchange at all, but in many cases, the BSE is also able to generate value if the stocks of a company already listed on another exchange are listed in the Hungarian market, referred to as dual-listing or cross-listing. The different meanings of the two terms must be noted here: while a cross-listed company is a single legal entity that lists its shares on multiple markets, a dual-listed company is listed on more than one exchange as two separate corporations of one group. Numerous academic and business studies have dealt with this topic, examining the effects of a company or company group being simultaneously present on multiple exchanges. In the recent decade, we have seen numerous examples where these additional presences did not generate any profit. However, there are also a great number of cases in which a company and its shareholders were able to greatly profit from an additional listing.

In the past 10 years, we have seen the globalisation of capital markets accelerate. A growing number of investors have increased access to remote markets, which in many cases means that liquidity is more easily concentrated, and thus an additional listing of shares can bring fewer new investors.

We must also remember that an additional exchange presence can incur additional costs due to a different legal environment or to the administration of disclosure requirements which this presence incurs.

At the same time, the cross-listing strategies of numerous large corporations are still considered to be highly successful.

The presence of a company on multiple exchanges which generates substantial profits can be justified by simple tax reasons, although a company may also opt for this particular structure in the case of a cross-border M&A transaction. Among other things, tax advantages were also a consideration during the 2001 merger of Australian firms BHB and Billiton, as it exempted shareholders from the obligation of paying capital gains tax on the transaction as well as from the substantial stamp duty payable on securities purchases in England.

In addition however, another important motivation factor may be the retention and promotion of the brand and the name in a given market where the IPO is made. A cross-listing can help a company increase its brand name and business recognition in a strategically important market if a substantial portion of its sales revenue is generated from the market of the given exchange or if it wishes to expand.

An exchange presence necessitates transparent operations, which, in the B2B environment, creates credibility for the company while also communicating an important message to its consumers. A great example for this in our region is the listing of Erste stocks on the Prague and Bucharest exchanges or that of Astra Zeneca on the Stockholm and London markets, or even the Austrian-based Do&Co on the Istanbul stock exchange, as the Turkish market has a strategic importance for the latter.

Maximising the number of investors – and thereby increasing liquidity and demand – is a key consideration in practically all cross-listing cases. Retail investors are typically most active on local markets, which is why listing stocks on the given exchange could prove to be an effective means for reaching private investors. In many cases, a company can also gain new institutional investors by being included in a stock exchange index by way of cross-listing, which stimulates demand in the stock from fund managers tracking the index. But institutional demand can also be increased if the company's stocks are concurrently present in developing and developed markets, where different funds invest, making it thus able to reach all investor types. Overall, therefore, a lower capital cost may be attained by numerous investors who have access to the company's shares, which increases the liquidity of the share. A regional example of this is the Polish listing of MOL, thanks to which (through its presence in Warsaw) the company is able to access the demand from Polish pension funds, or the Swedish-Swiss industrial concern ABB, which targets the investors of two countries by being present on both the Stockholm and Zürich exchanges. Among global players, we can cite the examples of Vodafone or Unilever who are simultaneously present in London and New York, or Japanese mobile chat provider Line (valued at USD 9 billion last year), whose shares were listed in both Tokyo and London.

The role of responsible corporate governance also crops up with increasing frequency, as companies choose to list on stock exchanges with very high corporate governance standards in order to promote investor trust. In recent years, many African and Asian companies found the existence of established responsible corporate governance principles of the largest global stock exchanges to be highly attractive, with these companies typically listing their shares in London or New York in addition to their local markets.

A company can also list on a given exchange solely because there are already several companies listed active in the same or similar industries, thereby aiding the company's appropriate valuation along with its peers in the sector. Good examples of this are the cross-listings of mining companies in Toronto or those of Israel-based IT firms on NASDAQ.

Last but not least, the topic should also be examined from the employer side, as within employee stock ownership plans, the fact that the company's shares are being traded on the local market may prove to be a benefit.

The BSE considers it its mission to seek out international or internationally traded Hungarian companies who would benefit from a market presence on the BSE, as the exchange could offer them new investors, brand name recognition and developed market infrastructure.

## Beyond the trading floor: sustainability

### CORPORATE SOCIAL RESPONSIBILITY

The market status and role of the BSE demands that it also conduct activities that carry social importance, but which at the same time also fit into its strategy, through which it can lead by example for other players in the capital market. We firmly believe that we must pay attention to the community in which we are active.

Beyond our core activities, and in addition to supporting critically ill children, our corporate social responsibility role focuses on education. In 2017, we organised the Trader Game, hosted several BSE Academies, once again announced the Kochmeister Award and also launched our educational subsidiary, the Budapest Institute of Banking.

The Exchange's free courses designed for retail investors proved to be very popular in 2017 as well. The objective of the Academy is for those interested in the stock exchange to further deepen their financial knowledge with the help of key players in the capital market. The BSE has managed to enlist major service providers of the capital market to become involved in the programme, which means that participants were able to gain first-hand information from recognised market players about the operation of the capital market and the stock exchange. During the lectures, participants learned about current capital market processes as well as terms and concepts essential to stock exchange trading. In 2017, we partnered with Equilor Investment Ltd., Generali Alapkezelő Zrt., MKB, Random Capital and Erste.

For many, the Stock Exchange remains a mystery. This is why we make it possible for the younger generation, mainly for interested secondary school students, to gain an insight into the world of the Exchange. This year, we welcomed and held presentations for nearly 1,500 visitors. In addition to the 12-18 age group, students in higher education or even from international institutions visited the Hungarian stock exchange as well.

The stock exchange game announced by the BSE and the Money Compass Foundation is a programme launched on the basis of the cooperation agreement concluded by the two organisations in December 2016, and is aligned with the BSE's priority objective of acting as a key player on the Hungarian money and capital market and taking an active role in developing the financial literacy of the population. Nearly 2,000 students registered for the Stock Derby exchange game targeted at secondary school students. First place in the knowledge-base competition went to a student from the Árpád Tóth Secondary School of Debrecen. At the end of the game, prizes were awarded to the students with the 10 most valuable portfolios and to those generating the highest yield increase during the contest. In addition the BSE also raffled off prizes for those who correctly completed the quiz. The day on which prizes were presented started with the ringing of the bell at the BSE. The ceremony then continued at the MNB, where the BSE and the Money Compass Foundation together handed out valuable prizes, while the day ended with contest winners taking the economic history walk – also one of the prizes.

In addition to secondary school population, the BSE also focuses on students in higher education. The Kochmeister Award was founded by the Budapest Stock Exchange in 2004. The award is named after Baron Frigyes Kochmeister, who played a leading role in establishing the Budapest Commodity and Stock Exchange in 1864, and, as the first Chairman of the Exchange, managed the institution for more than 30 years. The scholarship competition is aimed at Hungarian and foreign students of Hungarian universities and colleges offering degree programmes in economics and finance who are under the age of 35, and who take part in Hungarian higher education as full-time, part-time and correspondence university or college students or who are PhD, MBA students or studying for a second degree. The competition is also open to Hungarian students studying at foreign universities and colleges, individually or in groups (groups of 1-3 persons). The aim of the scholarship is to provide financial support for the academic studies of students who are focused on the long-term and healthily sustainable development of the capital market. Winners of the competition are presented with a one-time financial grant, scholarship. In 2017, the Professional Committee awarded first prize to Dezső Böröczky, student of Corvinus University of Budapest, for his paper "Privatisation Through the Budapest Stock Exchange".

The prize for second place went to a student of the University of Pécs, Dorottya Geiszl, whose paper focused on "Equity-based Crowdfunding". Third place was taken by Dávid Csik, also a student of Corvinus University of Budapest, for his work entitled "Index-tracking Investment Vehicles on the Hungarian Wealth Management Market".

We attempted to seek out students who have a deep-rooted interest in the world of the stock exchange and who may end up being the future pundits of the capital market. The entries received were truly interesting and relevant for the BSE, and in certain areas represented frames of reference for the implementation of the BSE's strategy. We hope to see the young people who have entered the competition return in a few years as successful capital market experts.

A common international practice is for stock exchanges to run dedicated educational institutions in order to effectively develop money and capital markets. In the summer of 2017, the Budapest Stock Exchange established a new educational subsidiary to modernise the financial education and examination system. Pursuant to the agreement between the BSE and the Central European Training Centre for Brokers, as of the end of November 2017, the Budapest Institute of Banking (BIB) took over the organisation of preparatory courses and examinations related to qualifying examinations in the stock market, as well as examinations for options, futures and securities administrators.

In 2017, the BSE continued to support the Csodalámpa Alapítvány (Magic Lamp Foundation), which grants wishes to terminally ill children.

## BUDAPEST INSTITUTE OF BANKING – BIB

### BACKGROUND OF THE BSE'S EDUCATIONAL ACTIVITIES

The educational activities of the Budapest Stock Exchange have been of key importance ever since the reopening of the exchange in 1990. This stems from the fact that innovation for the entire capital market industry was driven by the stock exchange, and the sharing of knowledge was also a fundamental condition to its operations. At the 1990 reopening of the Exchange, only one broker (exchange trader) familiar with pre-war times was able to take part in restoring the market, which is why it was essential to revive this profession in Hungary. In addition, starting from 1993, trading continued on an electronic basis. This was when the Stock Exchange was one of the first in the field of finances to increase its reliance on IT systems. The appearance of information technology forced the industry to acquire new knowledge and skills as soon as possible. With the Internet speedily gaining ground, by the beginning of the 2000s, even retail trading was typically conducted on terminals providing home brokerage services linked to the exchange trading system. This was the point where, based purely on knowledge, it was hard to distinguish between brokers holding MMTS certificates, and well-trained day-trading small investors.

Therefore, on the investor side, the Exchange's educational activity is clearly aimed at everyone: to professionals as well as retail clients who have direct relationships with investment service providers and banks (i.e. the contracted clients of the exchange).

However, the existence of a trained and qualified investor segment is insufficient for the operation of the Hungarian capital market. The supply side, namely the companies, must also understand what they can use the capital market for. Just as that the stock exchange is not only about equity financing, stock exchange training programmes also cover a wide range of topics, including ethical operations, responsible corporate governance, sustainability, IFRS-compliant reporting obligations, communication, investor relationship management, and many more.

The training and education of players on both the demand and supply sides serves the business interests of the Stock Exchange, as its objective is for players to understand the operation of capital markets and the exchange, so that they will can use both appropriately.

As part of its corporate social responsibility, the Exchange offers basic training courses directly to adult retail investors as well as to a wide range of educational institutions, through which we are able to reach young people. In 2017, more than 1,500 students visited the Stock Exchange, where they became familiar with the history, operations and development strategy of the BSE through presentations. The stock exchange held a total of 17 presentations and lectures at Hungarian higher education institutions. In the spring of 2017, within the context of the Pénz7 (MoneyWeek) event, the BSE organised an online stock exchange game ("Stock Derby") for secondary school students, which allowed 2,000 students the chance to experience trading on the Hungarian exchange.

Some of the BSE's educational activities were also accessible to professional industry players, in most cases subject to a participation fee, which shows that this particular activity of the Exchange would also clearly have been competitive on the market even for a fee. This gave rise to the idea of developing educational activities further, but in a somewhat different form. It was for this reason that the BSE, with the support of its owner, founded the Budapest Institute of Banking (BIB), an educational subsidiary 100% owned by the BSE.

### BIB MISSION AND MOTTO

"The foundation of the Budapest Institute of Banking (BIB) is rooted in the matching of market needs with the social responsibility objectives of the National Bank of Hungary and the Budapest Stock Exchange. Our mission and motto - Edutainment for future experts in finance - is inspired by the professional goals we have set to operate an internationally recognised centre for education. Our programmes offer up-to-date and practice-oriented knowledge with top lecturers from the industry. Covering the entire operational spectrum of the financial sector, the courses grant the opportunity to participants, from experts to executives, to gain cutting-edge knowledge as well as development opportunities."



In addition to participating in education and training with its staff, the BSE also provided another form of support to the BIB's training of capital market experts: it reclaimed the rights of holding examinations for stock exchange traders as well as the required training courses from the Central European Training Centre for Brokers (KEBA).

KEBA sold its revenue-generating activity to the BSE as part of a single transaction, and the stock exchange passed these rights on to its educational subsidiary. KEBA will remain a strategic partner of the BSE and the MNB, and will continue to perform its top-level support activities related to the development of financial literacy.

Following the foundation of the Budapest Institute of Banking, the BSE's wide-ranging educational activities are now being implemented within a more streamlined structure. All activities that are subject to fee payment and which qualify as professional training are conducted by the BIB. The scope

of these educational activities extends beyond capital market topics, as it covers the entire financial spectrum, as well as teaching “soft skills” that are essential today for anyone working in the financial arena. The Stock Exchange holds free events for its issuers and Exchange members, where topics tend more to relate to the operation and regulation of the BSE. These are complemented with other topics covered in BIB courses. In addition to, or rather beyond, the above the Budapest Stock Exchange remains accessible for visiting school groups and the BSE will also continue to hold free of charge stock exchange's courses for retail investors.

## KOCHMEISTER COMPETITION 2017

For more than 10 years, the Kochmeister Competition established by the BSE gives a one-off scholarship every year to post-secondary students studying economics or finance who show an interest in the stock exchange that goes beyond the scope of their curriculum. Each year, the Budapest Stock Exchange receives interesting and relevant entries, which are judged by a Professional Committee, which in 2017 awarded first prize to Dezső Böröczky, while Dorottya Geiszl and Dávid Csik received second and third place, respectively. In the following section, we present the abstracts (as edited by us) of their winning entries.



## DEZSŐ BÖRÖCZKI: PRIVATISATION THROUGH THE BUDAPEST STOCK EXCHANGE

The issue of Hungarian privatisation can be analysed from a number of aspects, and there has been a great deal of Hungarian and international research on the topic. This paper, written specifically for the 2017 Kochmeister Competition, focuses on the past and opportunities of stock exchange privatisation in Hungary.

My choice of topic was inspired by the recognition that the four blue-chip companies of the Budapest Stock Exchange (BSE), as well as practically all shares that have substantial liquidity, are all companies previously held by the state, which for the most part have been privatised through the stock exchange. Upon examining the successful privatisation programme of the Polish government between 2008 and 2011 as well as the rise of the Warsaw Exchange, the question occurred to me whether other Hungarian state-owned companies could also be sold in the form of initial public offerings (IPOs). This is an important issue, as I believe that a highly developed capital market and stock exchange serves as a pillar for any competitive, innovative economy. A well-functioning stock exchange encourages investment in bonds and shares, which is of critical importance to enterprises that are denied credit by banks, especially during a slowdown in credit.

At the beginning of my paper, I detail the macro-economic impacts of privatisation as well as the main arguments for and against privatisation. I then present the most important privatisation techniques, with particular emphasis on capital market methods. Following the analysis of the Hungarian privatisation processes of the 1990s, I point out that privatisation is not a completed process, as there are several such processes currently underway across Europe. To illustrate this, I present recent examples of privatisation through the stock exchange in both Poland and Romania.

In closing, as part of a thought experiment, I examine whether there are any Hungarian companies today for which it would be justified and reasonable to undergo privatisation through the stock exchange.

In the course of my research, I set up a scoring system that takes into account the varying operational frameworks arising from the diversity of the companies examined as well as the limits of the indicators applied, and which, in my view, provides a good starting point from which to select the range of companies to be privatised as part of an initial public offering down the line.

## DOROTTYA GEISZL: EQUITY-BASED CROWDFUNDING

Equity-based crowdfunding is a revolutionary new form of financing, which allows start-up companies to offer ownership stakes via the Internet, as part of an open process, to interested investors.

My study presents the development and basic terms of this phenomenon, and summarises the results of currently ongoing Hungarian and international research. It concludes that on account of its flexibility, equity-based crowdfunding may be able to fill in the financing gaps left open by traditional forms of financing. It calls attention to the extensive risks arising from the emphatic presence of informational asymmetry, as well as possible solutions to these risks.

Through the statistical analysis of 30 projects on the largest British equity-based crowdfunding platform, the study both supports and refutes the key results of relevant literature. Using a multivariable linear regression method, it establishes that investors participating in funding do not make their investment decisions through a quantitative evaluation of projects.



## DÁVID CSIK: INDEX-TRACKING INVESTMENT VEHICLES ON THE HUNGARIAN WEALTH MANAGEMENT MARKET

My research analyses the competition of two index-tracking investment products, the BUX ETF and index-tracking investment funds, on the Hungarian asset management market. Although some research shows ETFs are more beneficial for investors on account of lower costs, numerous empirical research studies have come to ambiguous conclusions, and it is seemingly market-specific characteristics that determine the relative competitiveness for investor funds of the two products. The objective of the research was to determine along what factors which investment products can be recommended to the various types of investors on the domestic market. The business significance of this lies in the fact that investors can better understand performance parameters along which index-tracking investment vehicles can be evaluated in line with their specific needs.

As part of my research, I analysed five index funds and one ETF. The research relied on extensive secondary research, based on the relevant literature of approximately 24 years; a qualitative survey comprising seven interviews conducted with portfolio managers and capital market experts; as well as a quantitative study using 12 variables. As a result, I made an attempt to recommend the investment products to various investor groups. The study revealed numerous findings. For instance, in line with Western European results, all index funds statistically significantly underperformed the BUX index. It was also revealed that index-tracking funds on the domestic market may deviate from BUX index weights by +/-5% points, allowing the funds to have an active management component, which in the case of bearish and sideways markets can be used to increase yields.

Based on my research, the BUX ETF can truly be recommended to institutional investors as it has the lowest tracking errors and operating costs. Erste and Pioneer funds may be recommended to retail clients due to their relatively high yield and moderate risk.

## Outlook for 2018

2018 will be the third year of the implementation of the strategy, which was announced in 2016 and which sets out objectives until 2020. One of the key objectives will remain the same: in addition to concurrently developing all elements of the capital market, we are looking to welcome as many new issuers on the BSE as possible.

The joint work performed in cooperation with the government and market players will continue in the future as well, and will remain an important and essential pillar of market development. The BSE will continue to prioritise strengthening the capital market presence of Hungarian SMEs. Interest in the company development project launched in cooperation with ELITE, a programme of the London Stock Exchange, is increasing, and thus we will continue to make this available to interested companies. Although this programme does not primarily help companies launch their shares on the exchange, its role is rather to provide efficient and practical advice for those progressing to the next level. The BSE still welcomes companies who, at the end of or during the two-year training, decide that they wish to be funded from the capital market in the future. The Exchange is all the more able to do so because in 2018, the BSE's Xtend market launched at the end of 2017 and calibrated for SMEs will be in full gear. We hope that as many companies as possible will become familiar with our new platform developed for medium-size companies.

In addition to the building of the primary market, the development of the secondary market is also very important. In order to improve trading liquidity, and based on the positive experiences of the futures BUX market-making system to date, the BSE is likely to also extend official market-making to other product groups.

In addition to the development of the Stock Exchange and the Hungarian capital market, there are other important tasks that will continue in 2018. In fact, the preparation for MiFID II, the EU-level capital market regulation effective as of January has presented a major challenge, which will continue to be the case in 2018. MiFID II has been a recurring and permanent topic of numerous domestic and international professional forums and conferences, and the experts of the organisations and institutions concerned frequently came to the conclusion that the processes, systems and best practices will most likely take on their final form as work progresses. It is telling how a foreign presenter at a conference quoted Churchill when referring to MiFID II: "A riddle, wrapped in a mystery, inside an enigma." For its part, the BSE wishes to continue assisting its partners with the regulation in 2018 by retaining its supporting and cooperating role.

The Budapest Stock Exchange wishes to place great emphasis on corporate social responsibility in 2018 as well, in order to support members of society through our community role, whether through educational activities or professional collaborations, in addition to the quality services we already provide to our partners. Perhaps the most important pillar of our sustainability strategy is financial education. 2017 saw the foundation of the BSE's educational subsidiary, the Budapest Institute of

Banking, which opened its doors to students in November. The high level of skills and knowledge attainable here allow students to take on important jobs and positions at companies and institutions within the Hungarian or the international financial institution sectors.

As part of the cooperation of the Stock Exchange with various organisations, we nurture a close relationship with professional communities, such as the Hungarian Economic Association (HEA), the Hungarian Chamber of Commerce and Industry, the Confederation of Hungarian Employers and Industrialists or MFB Invest. These partnerships are very important to us, and strengthening these will be as important this year as it has been so far.

We believe that the expertise and know-how accumulated at a stock exchange is a value that must be shared with colleagues, financial-economic experts and economists alike. Our close cooperation with professional communities also aims at accomplishing this objective. At the same time, we also believe that we must be open to other professional areas as well in order to continuously widen our scope of vision and to gain new knowledge. We continuously seek new professional challenges in order to represent the Hungarian capital market, as represented by the BSE, with the highest possible expertise at all times. The addressing of foreign market players as a part of roadshows will continue to remain in focus: planned venues for 2018 are London, Frankfurt, Warsaw, Bucharest and Stockholm.

We have plans and a vision. This includes a dynamically increasing, vibrant private investor base, publicly listed state-owned companies, numerous regulated real estate investment companies and many medium-sized businesses that will successfully raise tens of billions in capital through the Budapest Stock Exchange. We at the Stock Exchange will be working on making this vision a reality in the coming year as well. As a major player on the Hungarian capital market, in 2018 the BSE will continue to provide reliable and top-quality services to investors, stock exchange members, and issuers reliably, while also adapting to constantly changing market needs.

Strong economies have strong stock exchanges. Over the last year and a half, we have laid the foundations, and this is what we must continue. We hope that 2018 will be another successful year and that, once the year ends, we will be one step closer to accomplishing our objectives.

## Special topics

### CORPORATE GOVERNANCE

Efficient corporate governance facilitates the increase in the company's value, and also ensures the effective representation of the rights of shareholders and other stakeholders.

The necessity of corporate governance was raised in the 1990s. The purpose of the application of corporate governance recommendations is to promote the transparent and efficient operation of the market, to support the implementation and enforcement of legislation, especially in terms of shareholders' rights and ownership functions, and to harmonise the interests of the company, the investors and the company's environment. Effective corporate governance facilitates the increase in the company's value, and also ensures that the rights of shareholders and other stakeholders are well-represented.

The BSE started formulating Corporate Governance Recommendations for listed companies in mid-2002. When compiling the recommendations, it used the principles most frequently applied internationally, and drafted them taking Hungarian experiences and the characteristics of the domestic market into account. The Exchange's Corporate Governance Committee has been operating since 2004 with the aim of supervising the continued development of recommendations by taking domestic industry requirements, EU legislation under preparation and general international trends into consideration, and also to represent industry aspects in the field of the further development of corporate law. Through the work of the Committee, the Stock Exchange wishes to ensure that the representatives of the professional community are able to participate in the decision-making process related to recommendations – with the Exchange retaining its initiating role – within an organised framework. Issuers, regulatory authorities and the representatives of the Exchange, as well as independent market experts and attorneys are all represented in the Committee.

The recommendation is to be considered an addendum to Hungarian legal regulations (fundamentally Act V of 2013 on the Civil Code), primarily for public companies listed on the Budapest Stock Exchange. The contents of the recommendation cannot be interpreted as being proposals contradictory to the provisions of legal regulations. The document contains recommendations, proposals, as well as related explanations. The recommendation does not separately focus on issues regulated in the law, but the same time, the applicable legal provisions must be taken into account in order to evaluate the corporate governance practices of exchange-traded companies based in Hungary. Recommendations – as also expressed by the title of the document – propose a recommended practice to be followed. Compliance with the contents thereof is recommended, but not obligatory for listed companies.

Developing responsible corporate governance in listed companies remained a key priority for the BSE this year as well. With support from the stock exchange, the Responsible Corporate Governance Committee completely reworked and updated its Code of Recommendations for Responsible Corporate Governance, which provides guidelines for corporate governance practices for issuers, followed by a knowledge check consisting of a set of questions, also published for investors in an accessible manner. The new recommendations are expected to be easier for issuers to handle and easier for investors to process, and will contain exactly the kind of relevant information that can provide an accurate snapshot of

the governance systems of issuers, as well as their compliance with regulatory requirements and investor expectations. With the active participation of the BSE, the Committee again compiled its monitoring report, by summarising the issuer reports published in 2017, which contains the statistical aggregation and evaluation of the issuer reports completed on the basis of the Recommendations.

The BSE cooperates closely with the Hungarian Economic Association (HEA), and the Chairman of HEA's Corporate Governance Department since May 2017 is Richárd Végh, Chairman & CEO of the BSE.

The Corporate Governance Department wishes to promote and disseminate, in as wide a range as possible, the professional and regulatory initiatives and best practices relating to the frameworks and application of corporate governance through knowledge-sharing (public events, newsletters, online and social and other media appearances) that takes into account aspects of legal-regulatory compliance, transparency, business ethics, corporate social responsibility and efficient operation control, as well as by coordinating the related training and qualification programmes, and by cooperating with professional organisations and HEA partner departments.

The members of the Department's Board are: Dr Balázs Bodzási, Ministry of Justice; Dr Chaudhuri Sujit, University of Physical Education; Ágnes Hornung, Ministry for National Economy; Dr Bianka Parragh, National Bank of Hungary; Dr Norbert Szivek, Hungarian National Asset Management Inc.; Sándor Vizkeleti, Association of Hungarian Investment Fund and Asset Management Companies; Dr László Windisch, National Bank of Hungary; Dr Levente Zsembery, Hungarian Private Equity and Venture Capital Association.

2017 was the first year when the Corporate Governance Department first represented itself with an independent section at the 55th Itinerant Conference of the Hungarian Economic Association (HEA) in Eger, which event is the largest annual conference of Hungarian economists and also the one with the oldest traditions. The section focused on presenting the challenges faced by company growth, through the examples of intergenerational succession at family businesses and the corporate governance practices accompanying stock exchange presence. The chairperson of the section was Dr. Bianka Parragh, member of the Monetary Council of the National Bank of Hungary.

"Top-level corporate governance - 2017", held at Óbuda University, was another priority event. The conference was hosted on the occasion of the Hungarian Science Festival by the Corporate Governance Department of the Hungarian Economic Association, the Budapest Stock Exchange and the Károly Keleti Faculty of Business and Management of Óbuda University.

More than 350 participants attended the conference, representing both the public and private sectors as well as the Hungarian scientific and academic scene.

Central topics of the conference included the current and future challenges of corporate governance, the practice of responsible corporate governance, as well as macro and micro-level components of competitiveness.

The conclusion of the conference was an optimal joint reflection process realised within the scope of the economy/state/academia which (by taking the corporate governance characteristics of Hungarian companies into consideration) points towards the establishment of an appropriate ownership approach focused on growth and development, excels in utilising state role-taking and government support, and builds on education as a veritable resource and a factor in competitiveness.

## PRACTICAL EXPERIENCE GAINED FROM EMPLOYEE STOCK OWNERSHIP PLAN

There were many lectures and discussions on the creation and theoretical aspects of Employee Stock Ownership Plans (ESOPs) at many venues, including the BSE. Our colleagues, however, were also interested in the practical experience relating to these plans. This is why in 2017 we published an article on this topic on [portfolio.hu](http://portfolio.hu), with assistance from ALTEO Nyrt., Magyar Telekom Nyrt., Masterplast Nyrt., MOL Nyrt. and OTP Nyrt.,

### "BUT WHY ESOPS?"

Based on interviews with the above-listed issuers, we identified the four fundamental reasons for creating ESOPs. One such reason – which is incidentally true for all employee ownership programmes – is the opportunity to align shareholder and management interests, which is of key significance in the life of all businesses, and particularly so for listed companies.

Another is cost, or more accurately, tax efficiency. In relation to ESOPs, the Hungarian regulation stipulates tax benefits which – in contrast with traditional wage-type benefits – can generate substantial savings for companies.

Compared to other employee ownership programmes, their structure is highly flexible, which is another argument for their use. For example, in contrast with other employee ownership programmes, no mandatory holding period needs to be stipulated within the framework of ESOPs. In addition, the company also has more latitude in determining the rate of benefits, as its maximum rate is considerably higher than, for example, in the recognised employee stock benefit plan.

Last but not least, another reason why our issuers have opted for ESOPs is the option for multiple use. Legal regulations do not limit how many programmes the established ESOP trust can implement during its operation. It may simultaneously run multiple programmes or implement such programmes sequentially, one after the other.

But there are always two sides to the coin, and this also holds true for ESOPs. Setting up and operating an ESOP trust obviously incurs costs, firstly during the establishment of the ESOP trust, and secondly during its operation. However, as shown by the experiences of the issuers whom we have polled, the benefits of the programme outweigh these costs.

### WHAT OBJECTIVES SHOULD BENEFIT PAYMENTS BE LINKED TO?

The ESOP Act stipulates that payments can only be made upon the accomplishment of the objectives set out in the remuneration policy.

The interviews with our issuers revealed that companies typically link the programme to economic performance. Usually, they set out objectives related to indicators that are traditionally used during performance evaluation. Those most frequently used are profitability indicators, with most objectives linked to the increase in revenues or profits. However, we have also seen special cases, such as

payments linked to reaching a cash-flow target or, in the case of ALTEO Nyrt., benefits provided upon a successful initial public offering.

#### **RANGE OF STAFF INCLUDED IN INCENTIVISATION PROGRAMMES**

Based on our experiences, the companies polled typically involved mid-level and executive employees in the ESOPs, or more accurately, key officers who have major impact on reaching the objectives set – with one exception being Magyar Telekom, who involved all their employees, as well as the employees of one of their subsidiaries in the programme. In general, the employees involved are not given benefits at equal rates. This rate is impacted by two factors: how great their impact is on the achievement of the given objective and also where they stand in the company hierarchy.

In respect of the programme, companies running ESOPs also have to manage fluctuation, which could pose a problem when there is high fluctuation and there is a wide range of employees involved. The law gives free rein to companies in this matter as well. The issuers polled essentially applied two solutions. Firstly, new entrants were involved in the programme on a pro-rata basis, meaning that if a given employee has worked at the company for half of the performance period, they would be eligible for half the benefit. Secondly, for exiting employees, the most frequent solution was that if the employee was working at the company at the end of the performance period, they would remain eligible for the benefit, but would not be eligible if they left before the end of that period.

#### **WHAT TOOLS ARE USED FOR INCENTIVISATION?**

Our issuers typically created stock-based programmes, but applied a number of various options as means of payment. The most frequently applied method was payment in shares, but there were some cases where settlement was made in cash. The latter option makes life easier for employees, for, if they receive the benefit in the form of physical shares, they need to open a securities account – a step which is not required in the case of a cash payment. At the same time, in this latter case they lose the opportunity to remain shareholders of the company by holding onto the securities received in the long-term.

Some issuers provide options as part of the programme to employees, who are then eligible to draw these down in a pre-determined period after performance evaluation. This entails a certain degree of difficulty, as the exact value of assets involved in the organisation and the programme must be determined using models at both launch and when preparing reports, as these options are not traded on the exchange.

The most effective means for long-term incentivisation and reinforcing the ownership approach are shares. In addition, the use of listed securities during the programme considerably simplifies the implementation of the programme, as the price change of the securities can be monitored in the market and no pricing model is necessary for their valuation. In light of these findings, we feel that the best way for launching ESOPs is by using exchange traded shares.

## GLOSSARY

<b>ADH</b>	<b>(Alliance Data Highway)</b> A system that provides access to direct stock exchange data. The data feed infrastructure used by the BSE.
<b>APA</b>	<b>Approved Publication Arrangement</b> A solution used to send/manage transaction and transparency reports falling within the scope of MiFID II / MIFIR.
<b>Arbitrage</b>	A transaction or group of transactions that exploits operating/pricing fluctuations on the market, resulting in extra profit without taking on any risk.
<b>Bear market</b>	A prolonged period of falling stock prices.
<b>BÉTa</b>	The name of the multilateral trading facility (MTF) operated by the BSE; a platform suitable for trading in foreign stocks in HUF. Stocks purchased on the BÉTa market are identical with stocks quoted on foreign stock exchanges.
<b>BEVA</b>	Investor Protection Fund
<b>Bid-Ask spread</b>	The difference between the best buy and sell price in the order book at a given point in time.
<b>BLM</b>	Budapest Liquidity Measure.
<b>Blue chip shares</b>	The most liquid and most highly traded stocks on a given market.
<b>BMBX indices</b>	In response to the upswing in the domestic mortgage bond market, the BSE, working in cooperation with the MNB and mortgage banks, introduced three new mortgage bond indices on a pilot basis.  Total return index: BSE Mortgage Bond Total Return Index (BMBX Total Return)  Two yield indices: one for a 3-year term (BSE Mortgage Bond 3-Year Yield Index – BMBX Yield 3Y) and one for a 5-year term (BSE Mortgage Bond 5-Year Yield Index – BMBX Yield 5Y).

<b>Bond funds</b>	Funds that primarily invest in debt securities, government securities and corporate bonds. They can be differentiated based on whether they contain short-term or long-term securities.
<b>BSE</b>	Budapest Stock Exchange
<b>Budapest Institute of Banking</b>	The educational institution of the BSE.
<b>Bull market</b>	A prolonged period of rising stock prices.
<b>BUX Index</b>	The official index of the BSE, the BUX provides a continuously updated display of the average price changes of the most important stocks on the market with automatic updates after each transaction.
<b>Capitalisation</b>	The total value of stocks listed on the stock exchange – the listed quantity multiplied by the price of the securities.
<b>Cash market</b>	Market of financial instruments on which futures and options markets are based.
<b>CCP</b>	Central Counterparty  Central Counterparty – A clearinghouse service, which provides a guarantee of transaction execution to the parties directly involved in the settlement (i.e. to the brokerage firms themselves, not the underlying clients).
<b>CEEGEX</b>	Central Eastern European Gas Exchange
<b>CETOP Index</b>	The stock market index reflecting the performance of Central European stocks.
<b>Client account</b>	An account held at an investment company, credit institution, commodities exchange service provider designed to provide a record of the financial assets of the client.

<b>Contract</b>	Standardised trading unit used in the course of the trading of stock exchange futures products; only multiple whole numbers of which can be contracted.
<b>Crossing network</b>	An alternative trading system.
<b>CSCR</b>	China Securities Regulatory Commission
<b>CSDR</b>	Central Securities Depositories Regulation European Union regulation on central securities depositories.
<b>Day trading</b>	Intraday buying and selling – the buying and selling of a stocks within the same trading day.
<b>De-listing procedure</b>	The given stock will no longer be traded on the stock exchange, nor will it be traded on any other regulated markets.
<b>Dematerialisation</b>	The removal of the physical (paper) form of a security, from which point forward the security only exists in electronic recording.
<b>ELITE Programme</b>	A London Stock Exchange Group programme designed to promote the growth of companies.
<b>EMIR</b>	European Union regulation on derivatives, central counterparties and trade repositories.
<b>ETF</b>	Exchange Trading Fund An investment fund traded on the stock exchange.
<b>FESE</b>	Federation of European Securities Exchanges European stock exchange alliance
<b>Free float</b>	The entirety of stocks held by shareholders that do not qualify as strategic investors, and whose participation does not exceed 5 percent.
<b>GINOP</b>	Economic Development and Innovation Operational Programme

<b>Hedging transaction</b>	A transaction concluded to reduce risks originating from open positions.
<b>Hybrid funds</b>	Funds that invest in stocks, bonds, and money market investments to varying degrees. Hybrid funds can be categorised into cautious, balanced, and dynamic funds, representing increasing levels of risk through their varying composition of assets.
<b>Iceberg order</b>	A limit order where only a certain predefined part of an order is visible, which is publicly available in the order book. When this visible part is entirely tied up, the visible part is replenished from the remaining order quantity, until the entire amount is tied up.
<b>Investment Service Provider</b>	A company with BSE trading rights (a bank or a brokerage firm), which accepts orders for the conclusion of stock exchange transactions.
<b>JMM</b>	Mortgage Funding Adequacy Ratio
<b>KELER</b>	Központi Elszámolóház és Értéktár Zrt. (Central Clearing House and Depository)
<b>KELER KSZF</b>	Central Counterparty; fulfils the function of a CCP in Hungary.
<b>KMOP</b>	Central Hungary Operational Programme
<b>LEI</b>	Legal Entity Identifier A global legal entity identifier
<b>Limit order</b>	An order that can be executed at a specified price or better. As a result, based on the market situation, limit orders cannot always be executed immediately.
<b>Limited company</b>	A business association that is founded with share capital consisting of a predetermined number of shares at a predetermined nominal value (registered capital), where the obligation of a member (shareholder) towards the limited company is limited to the payment of the face value or the issue price of the share. With the exception set out by law, shareholders are not liable for the commitments of the limited company.

<b>Local Business Tax</b>	Hungarian Investment Promotion Agency Hungarian Investment Promotion Agency
<b>Lombard loan</b>	Buying of securities against a loan, where the securities purchased are the loan collateral.
<b>London Stock Exchange</b>	London Stock Exchange
<b>Long position</b>	An open position where investors profit if the price of the security goes up.
<b>MAD</b>	Market Abuse Directive European Union directive on market abuse.
<b>MAR</b>	Market Abuse Regulation European Union regulation on market abuse.
<b>Margin</b>	Security requested in advance (most typically cash or government securities) for the purpose of hedging against potential negative changes in value of open positions.
<b>Market order</b>	An order placed without an actual price specification that can be executed by matching with counter orders in the order book (possible even with multiple prices and through several contracts). The parts that cannot be immediately matched are cancelled, depending on the model used, or remains active for a pre-specified amount of time.
<b>Market-maker</b>	A broker that assumes an obligation to continuously display buy and sell quotations for a given security, typically with a narrow bid-ask spread.
<b>MiFID</b>	Markets In Financial Instruments Directive European Union directive regulating capital markets.

<b>MiFIR</b>	Markets In Financial Instruments Regulation European Union regulation regulating capital markets.
<b>Money Market funds</b>	Liquidity funds that invest mostly in bank deposits and short-term government securities, and traditional investment funds that typically hold one-year government securities in their portfolios.
<b>MSCI Emerging Markets Index</b>	The index that measures the equity market performance of global emerging markets. The index consists of 23 emerging countries: Brazil, Chile, China, Czech Republic, South Africa, United Arab Emirates, Egypt, Philippines, Greece, India, Indonesia, Qatar, Colombia, Korea, Poland, Hungary, Malaysia, Mexico, Peru, Russia, Taiwan, Thailand, Turkey.
<b>MSCI World Index</b>	The index which measures the global equity market performance of developed markets as classified by the MSCI.
<b>MTF</b>	Multilateral Trading Facility Multilateral (alternative) trading platform
<b>NASDAQ</b>	National Association of Securities Dealers Automated Quotations National Association of Securities Dealers Automated Quotations
<b>NBH</b>	National Bank of Hungary
<b>NHP</b>	Funding for Growth Scheme (Növekedési Hitelprogram).
<b>NOMAD</b>	Nominated Advisor A nominated advisor on the BSE Xtend market who assists potential issuer companies in entering the market.
<b>NTfA</b>	National Stock Exchange Development Fund

<b>Order book</b>	A “book” containing the buy and sell orders for a specific security, where individual orders are organised in order of priority. That priority determines that better priced orders precede less favourably priced orders, while in case of equally priced orders the order that was placed earlier will have priority.
<b>Ordinary share</b>	A share representing general ownership rights, with the word ‘ordinary’ frequently dropped from the term.
<b>OTC market</b>	Over the Counter Off-floor trading market (including the MTF and OTF platforms).
<b>Portfolio</b>	The totality of the investment assets held by the investor is referred to as the investor's portfolio.
<b>Preferred stock</b>	A stock that provides special rights in addition to common shareholder rights. The most frequent type of preferred stock is the preferred ordinary share, which allows owners to receive extra dividends in addition to the ordinary annual dividend paid.
<b>Price to Book Ratio (P/B Ratio)</b>	Price to Book Ratio – shows how the price of the company determined by the market correlates with its book value. The higher the value, the more positive is the assessment of the activities of the company.
<b>Price/Earnings ratio</b>	Price/earnings per share – compares market value assessment with accounting profit. It can be used to compare the market perception of companies with similar profiles. The higher the value, the more positive the assessment of the market is.
<b>Private Equity</b>	Private equity

<b>REMIT</b>	Regulation of the European Parliament and of the Council on wholesale energy market integrity and transparency.
<b>RQFII</b>	Renminbi (RMB) Qualified Foreign Institutional Investor Renminbi Qualified Foreign Institutional Investors
<b>SEAB</b>	Stock Exchange Advisory Board
<b>Securities account</b>	A record maintained for the benefit of the owner of the securities of dematerialised securities and the associated rights.
<b>Securities deposit account</b>	An account held on behalf of the client designed to record securities deposited by the client.
<b>Settlement cycle</b>	The time between the transaction and the actual execution of the transaction. For stock transactions, this means 3 settlement days.
<b>Share</b>	A security embodying equity participation rights.
<b>Share price index</b>	An indicator reflecting the weighted average price of shares listed on a given stock exchange.
<b>Short position</b>	An open position where investors profit if the price of the security goes down.
<b>Short selling</b>	The borrowing and simultaneous sale of a given security, which allows taking up a short position in the cash market.
<b>Stock exchange</b>	A public, centralised, and organised market, a location where a predetermined group of people can buy and sell predetermined commodities, within a predetermined timeframe in compliance with strict rules of procedure.



<b>Stock exchange price index</b>	A summary indicator displaying the value of securities listed on a stock exchange. Provides a reliable picture of the state of the market.
<b>Stock funds</b>	Funds that are primarily characterised by stock exposure, the riskiness of which is determined by the extent to which stocks are held compared to the total assets of the fund: if the extent is “merely significant” then the stock is called a majority stock fund; if it is entirely made up of stocks, then it is referred to as a pure stock fund.
<b>SZIT</b>	Regulated Real Estate Investment Company
<b>T2S</b>	Target2 Securities A single European securities settlement engine operated by the ECB.
<b>T7</b>	A trading platform developed and operated by Deutsche Börse, the Frankfurt exchange.
<b>TR</b>	Trade Reporting A trade report. KELER KSZF takes orders for the preparation of TR reports on the transactions of energy market non-clearing members and sends them to the respective energy market non-clearing members as part of the TR service.
<b>Transfer</b>	The trading of a security on a given market is stopped as a result of the decision of the issuer, while trading of the same security is transferred to another regulated market operating in the European Union. Investors may decide to sell their stocks before delisting from the given market, or to transfer their investments to a service provider that has access to the new trading location of the security.
<b>Vendors</b>	Professional data providers. Real-time stock exchange trading data is available only through so-called vendors (distributors, data providers).
<b>Venture Capital</b>	Venture capital

<b>Volatility</b>	A figure that indicates the volatility of, and thereby the price risk, embodied by the security.
<b>XETRA</b>	An exchange trading system. Also used by the BSE.
<b>Xtend</b>	BSE market for medium-sized enterprises.



## BARON FRIGYES KOCHMEISTER

Frigyes Kochmeister plays a distinguished role in the history of the Hungarian stock exchange: he was the very first chairman of the Budapest Commodity and Stock Exchange founded in 1864, who was in office for an unprecedentedly long time, up until 1900.

Frigyes Kochmeister was born in Sopron in 1816, and after finishing his studies at local schools, he went on to study as a pharmacist in keeping with family traditions. He served as an intern at the pharmacy of his father Ede Kochmeister, and in 1833 graduated from the Vienna University of Sciences with a degree in pharmaceutics. His interest in economy and commerce was already visible at this time, as he also studied economics, and later went on to acquire banking and trade practice, as well.

He continued to widen his vision when he toured Europe in 1841, visiting several countries including France, Italy, Germany, Belgium and England. Combining his interest in pharmaceutics, which he brought from home, his experiences in trade and his Europe-wide network of contacts, he opened a pharmaceutical wholesale and produce shop in Budapest in 1842. Here, according to Pest coffeehouse legends as told by Vilmos Balla, he was "busy selling alcohol and scented soap, freckle cream, 'callus water' and his famous tooth powder". The tiny shop grew to become a well-known wholesale store, which continued to be a major player in the country's pharmaceutical supply for a long time. He then set up a pharmaceutical manufacturing laboratory and was also responsible for organising colonial produce trade.

The later years of the career of Frigyes Kochmeister, now widely known and with successful enterprises and businesses to his name, was characterised by highly active social undertakings. He assisted in setting up numerous organisations and associations and held prestigious positions in many. In 1859, he was elected to be the Chairman of the Pest Chamber of Commerce and Industry and was also one of the founders of the Trade Academy, the Lloyd Company and the Pest Grain Association. In 1864, he participated in founding the Budapest Commodity and Stock Exchange, of which he was elected first Chairman, holding on to this position for more than 30 years, up until 1900. He was involved in both the 1867 foundation and management of the General Credit Bank of Hungary. He was a member of the board of the Rolling Mill Company, and even served as a member of parliament in the House of Magnates.

Legends say that Frigyes Kochmeister, the longest-reigning chairman of the Hungarian Stock Exchange, was highly popular among brokers of his time. During the opening ceremony of the Budapest Commodity and Stock Exchange, he drew attention to the international significance of stock exchanges, and called on farmers, industrialists, tradesmen and brokers "to visit the stock exchange regularly and diligently, and to ensure health and vigour to our institution by concluding your business deals at the stock exchange".

He was appointed President of the National Protestant Orphanage in 1874 after the building was built using the 80,000 forints donated by him. Frigyes Kochmeister, typically dressed in an imposing frock and sporting a full white beard, was awarded the rank of baron in both Austria and Hungary. He died in 1907 in Budapest.

### **Bibliographical sources:**

Mór Gelléri: A magyar ipar úttörői (Pioneers of Hungarian Industry)

Gyógyszerészi Értesítő, 1907. 733.

Új Magyar Életrajzi Lexikon (New Hungarian biographical lexicon). Magyar Könyvklub (Hungarian Book Club), Budapest, Vol. III, pp. 1001-1002

Országgyűlési Almanach 1901-1906 (National Assembly Almanac 1901-1906), A Pesti Lloyd-Társulat Könyvnyomdája, Budapest 1901, Ed. Albert Sturm

