



10-YEAR FUTURE OF INSURANCE SECTOR IN 7 POINTS

WITH A SELF-CARE OUTLOOK



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(February 2018)

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Executive summary

The purpose of this publication is to present quantifiable visions for the insurance sector as a whole and to sketch a potential strategic plan through the major indicators characterising the industry. The ten indicators were classified into seven main topics: self-care, market size, market structure, sales, cost effectiveness, profitability and capitalisation. The target values for the individual indicators typically denote a target that can be met in ten years (Points 1–4 in the table). In the other cases, the values presented are optimal, and their early achievement and long-term maintenance are considered desirable (targets laid down in Points 5–7, two out of which have already been met).

Goal to be achieved	Target indicator	Past	2016	Target value/ Optimal value
1. Widespread self-care <i>More savings, greater security</i>	contracts of life insurances and policies of voluntary pension funds (VPF)/ number of economically actives	79% (2007)	54%	80% above
	Reserves in proportion of GDP (life tech. + VPF coverage)	8.8% (2007)	8.7%	10% above
2. Converging market size <i>Back to the vanguard of the region</i>	penetration	3.6% (2007)	2.5%	3.0% above
3. Competitive market <i>increasing competition</i>	share of TOP 5	66% (2007)	60%	55% under
4. Efficient sales <i>Half of sales over an innovative channel</i>	proportion of innovative channels	n.a.	37%	50% above
5. Economies of scale <i>Institutions operate more cost effectively with dropping margins</i>	ACR values of UL contracts	0.5-13.79% (2015)	0.53-9.97%	0.5-5.75% permanently
	non-life combined ratio (calculated without taxes)	87% (2007)	81%	85-90% permanently
	cost ratio	26% (2007)	30%	20-30% permanently
6. Fair and competitive profitability <i>Long-term confidence and stability</i>	ROE	21.8% (2007)	19.5%	10-15% permanently
7. Well-capitalised insurers <i>Safe and prudent operation</i>	capitalisation	169% (2015 S1)	215% (S2)	>150% permanently

Source: MNB.



The outlook on the future begins with self-care savings¹ that are envisaged to become widespread. With past data and the current economic developments, this may mean that 1 million new regular self-care savers enter the market. As a result of Hungary having caught up with the developed Western European countries and the rising number of contracts, the volume of self-care savings may even double in the next ten years, and thus be over 10 per cent of GDP.

For society, more savings will mean more financial security in the long run. For this, it may be enough to put aside 3–9 per cent of the regular monthly income for retirement. As the current willingness for self-care heightens, the above-mentioned increase will become feasible. The precondition for this is the existence of appropriate value proposition, which is ensured by, inter alia, the MNB through the reduced product costs that sank due to the ethical life insurance regulation.

Economic growth also facilitates the expansion of the insurance sector, one segment of self-care. Going forward, a market with increasing penetration² is envisaged, which ensures the convergence of the economy as well as of the market size. 3-per cent penetration over a 10-year horizon may be a positive goal for industry participants, which may propel Hungary back into the vanguard of the region, where it was before the crisis. This can be achieved through an average annual growth of 8 per cent on the insurance market, and this can be a feasible challenge for the institutions besides the current 6-per cent growth and the consistently favourable macroeconomic conditions.

However, in parallel with the market's expansion, earlier trends may continue and competition on the market is expected to heighten, on account of which the market share of the five largest insurers may drop from 60 per cent to below 55 per cent in the next ten years. Choosing the efficient distribution mix, which has to be cost effective and preferred by consumers at the same time, may prove to be a competitive advantage for insurers. The use of innovative channels³ may increase from 37 per cent at the end of 2016 to over 50 per cent over the course of the next decade. Economies of scale, which, in the long run, is considered to be ideal with a cost ratio of 20–30 per cent, depending on the line of business, may prove to be another advantage for the institutions. In the life segment, the MNB facilitates life insurance policies with consistently favourable costs on the market through the ethical life insurance rules (ACR limits), and maintaining these rules in the long run is considered important. In the non-life segment, the gross combined ratio is desired to be consistently around 85–90 per cent. These developments may be supported by the MNB's regulation, increasing consumer awareness and digitalisation.

The desired profitability for the sector is fair, competitive and provides adequate returns at the same time. With respect to the profitability of insurers, the return on equity in sectoral average is envisaged to be persistently around 10–15 per cent, which is fair, acceptable to society and it boosts confidence. In the context of the dynamic market growth, increasing cost effectiveness and heightening competition expected for the next ten years, this would mean a fair profitability where the capital invested would be recovered in 6–10 years. This level of profitability would be attractive compared to other sectors, even foreign ones, therefore the Hungarian insurance sector may prove to be a stable investment target, paving the way for the industry's development. Sustained profitability may support the maintenance of institutions' capitalisation, and the development of a well-capitalised insurance sector. The institutions are expected to consistently adhere by the MNB's recommendation on holding a volatility capital buffer with a capital level steadily over 150 per cent, which underpins safe and prudent operation.

The vision outlined above is intended as a guidance that can be monitored. Later, taking into account the events in the following years, it will be assessed whether the values associated with the indicators have been reached. The potential reasons behind the differences will be analysed, and the assumptions will be modified if necessary.

¹ Self-care savings are considered to include regular-premium life insurance policies for saving purposes and voluntary pension fund memberships, since these are usually funded by small amounts saved from regular income for a long time.

² Penetration is understood to mean the ratio of the gross written premium of the whole insurance market relative to GDP.

³ Innovative channels are considered to include bancassurance, direct sales, online intermediation, in contrast to traditional agent channels, such as dependent agents, multiple agents, brokers (in person).

Introduction

In the division of the Magyar Nemzeti Bank (MNB) supervising the insurance and pension fund sector (self-care sector), a new approach to analysis was introduced in 2014 similar to the banking sector, whereby the available information is processed, and the results are sought to be presented in a readily comprehensible manner. One manifestation of this is that a publication containing useful information for market participants is prepared and published annually (in 2015 and 2016, it appeared under the title Risk Outlook for Non-bank Financial Sectors, and in 2017 it was called Insurance, Funds and Capital Market Risk Report). The publication contains sectoral analyses with a quantitative approach about the self-care sector as a whole and its characteristics.

However, this study lays out a sectoral strategic plan and visions regarding the insurance sector.⁴ The aim of the publication is to show clear and long-term paths ahead of the insurance sector for professionals and society at large. Instead of the institution-level supervisory aspects, a quantitative target value covering the whole sector is provided using key indicators that are calculated using a specific methodology.⁵ In some cases, hypothetical assumptions are made, which are mainly supported by professional experience in the publication. The target figures derived in this manner provide a quantifiable projection based on earlier (Hungarian and international) actual data. The aim was to lay out a quantifiable vision for key indicators related to the seven chosen main elements of the insurance sector, on a 10-year horizon.

The visions include wishes, ideal objectives, the achievement of which is considered favourable. The other part of the goals presented can be seen from the present trends, and in certain cases they reflect above-trend expectations. The third group of target values can be regarded as optimal, as expectations vis-à-vis the market, and the MNB will take steps to achieve and maintain them.

No separate calculations were performed for stress scenarios, economic shocks, revolutionary changes (e.g. digitalisation) or a major shift in market participants' behaviour (e.g. substantial changes in business models). Instead, in certain cases, the possible differences are shown using alternative scenarios. The individual scenarios are realised only with the given conditions, therefore they include some uncertainty. Nonetheless, later they will be able to serve as points of reference on how much actual data coincided with, or how much they deviated from, the presented information. Market participants will be informed about the achievement of the target values and the reasons behind the differences in other publications.

When developing the vision for the sector based on indicators, both the information available about the Hungarian sector and the data collected by international organisations were taken into account. The target figures are based on international trends and historical developments. It has to be underlined that mainly current trends are presented, and the deeper, qualitative analysis of the characteristics is not included here.

Similar to the study on the future of the banking sector published in the spring of 2014, *Átalakulóban a magyar bankrendszer* (Hungarian banking system in transformation), this publication may even spark discussions among the wider professional audience. In that study, the authors collected the lessons learnt from the pre-crisis period, and, based on the situation at that time, they provided the criteria that may be necessary for a banking system that is able to support a well-functioning economy.

⁴ In the case of the technical provisions in the life segment, the coverage reserves of voluntary pension funds, put aside by institutions for financing future (pension) services, are mentioned in passing. Nevertheless, the pension savings account (PSA), which provides an alternative for a small number of people with the necessary expertise in investments, was deliberately left out.

⁵ These are presented separately in the different chapters.

The institutions in the insurance sector under review provide services to beneficiaries and victims when claims (e.g. death, material damage) arise. Their activities include the management of everyday risky events, therefore they promote macroeconomic growth.⁶

In Chapter 1, the widespread use of self-care products and the build-up of the reserves that are vital for long-term self-care are envisaged. Then in Chapter 2, the expected rise in the gross written premium of the insurance sector is quantified, assuming several potential growth paths. Chapter 3 provides an overview about the continued decline in the market concentration which describes well the market structure. After that, in Chapter 4, the current, possibly continuing, realignment in the composition of the channels necessary for sales is demonstrated using recent Hungarian data. In Chapter 5, the parameters of the insurance sector's cost effective and sustainable operation are quantified with the help of the annual cost rate (ACR), the combined ratio and the cost ratio. Chapter 6 touches upon the envisaged profitability levels in the sector, determined mainly based on international experiences. Chapter 7 examines insurers' capitalisation, which shows how safe the operation of institutions can be considered. Finally in the last chapter, a summary is given about the visions on the individual parts, and the relevant indicators are listed.

⁶ Monogbe Tunde Gabriel (2015): Impact of Insurance Sector Development on the Growth of Nigeria Economy, International Journal of Advanced Academic Research – Social Sciences and Education, Volume 1, Issue 2.

1 Widespread self-care – *More savings, greater security*

1.1 REGULAR-PREMIUM LIFE INSURANCE AND VOLUNTARY PENSION FUND POLICIES – 1 MILLION NEW REGULAR SAVERS

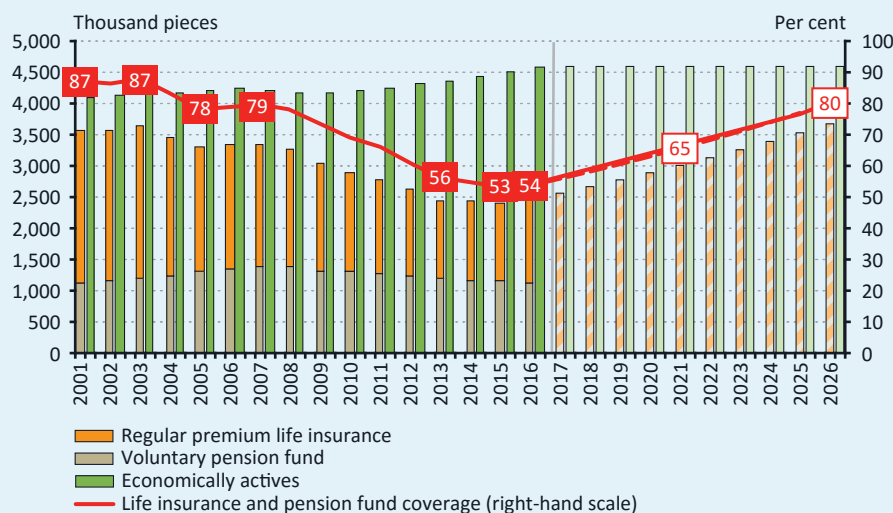
Wealth can be accumulated in many various forms and methods, however, in the long run, retirement savings are most efficiently amassed using the products designed for this purpose. At the individual level, self-care is when people can cover the higher the proportion of their needs from their own resources and savings. Society can be considered increasingly self-caring when a major portion of its members have products and savings designated for this purpose. Several investment opportunities for self-care are available on the Hungarian market, since there are products designed specifically for these needs (e.g. life insurance for saving purposes, voluntary pension fund membership, pension savings account), and traditional, long-term investments (e.g. property, long-term government securities) may also be suitable for this. According to the premium payment frequency, there are regular-premium and single-premium life insurance policies. The development of the latter is hectic and less predictable, and the amount of savings per policy is relatively high, therefore it is less of a mass product. By contrast, the money paid into regular-premium life insurance policies continuously (e.g. at monthly intervals) provides stability and gradualism to the system. Moreover, the many accumulating small amounts may offer an opportunity to more people for amassing savings over the long term. Due to the above-mentioned reasons, of insurance policies only regular-premium life insurance policies for saving purposes are to be considered self-care products.

In the present paper, self-care products mean the products that encourage regular savings in the long run and are widely used. These criteria are satisfied by regular-premium life insurance for saving purposes and voluntary pension fund membership,⁷ and from the perspective of the analysis, a sufficiently long time series is available for these.

The economically active population stagnated in the 2000s, and a significant increase can only be observed since 2011–2012 (Figure 1). In parallel with the rise in activity, the number of people in employment and gross average earnings have also grown, which may pave the way for a turnaround on the market in the number of contracts for self-care products in the long run.

⁷ Experiences show that the pension savings account (PSA) does not meet the above requirements: only a small number of people have PSAs, i.e. the PSA has not become a mass product, and regular payments by policyholders are not typical.

Figure 1
Number and coverage of saving life insurance contracts and voluntary pension fund policies



Source: HCSO, MNB.

The number of self-care contracts diminished steadily between 2007 and 2013, which can be attributed to the loss of confidence in the financial sector and the fact that income and savings were used for other purposes in the wake of the economic crisis. In the case of life insurance policies, this entailed the termination of the policies (e.g. redemption), while in the case of pension funds, this did not always mean the cancellation of the membership, however, the number of non-paying members increased sharply.

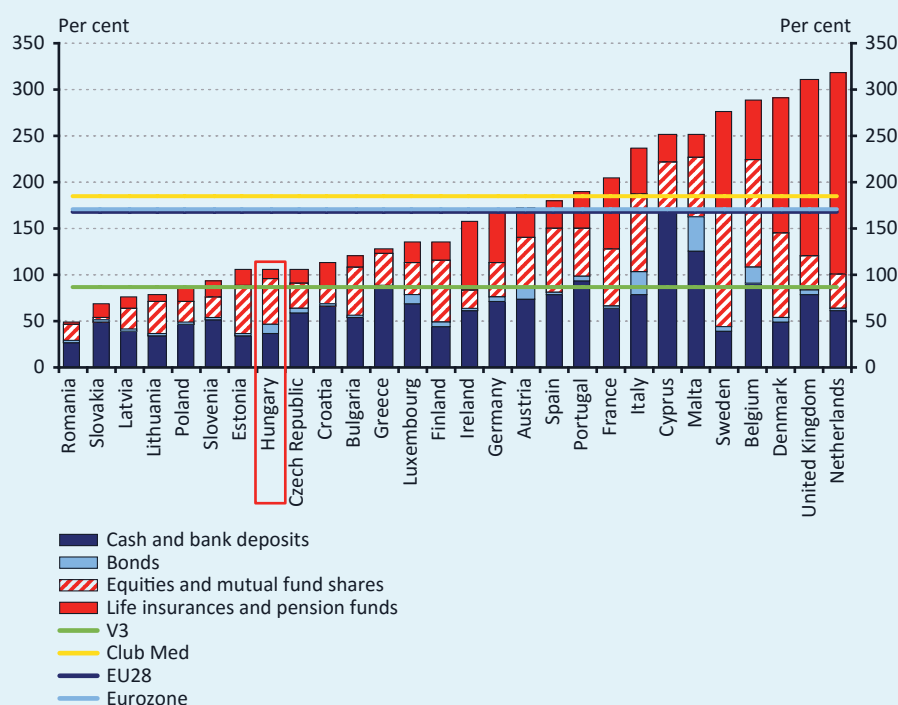
Life insurance and pension fund coverage shows the proportion of self-care contracts relative to the number of the economically active. The indicator reflects the percentage of the active population that may own at least one self-care product. The result presumably overestimates the actual ratio, since those who have multiple products (e.g. those policyholders that are also members in a voluntary pension fund) are disregarded. Currently, coverage can be considered low (standing at 54 per cent in 2016) as compared to the situation 10–15 years ago, when the market operated with ratios 20–30 percentage points higher.

The stabilisation that started after the crisis and the steadily dynamic growth path of the economy are expected to reverse the earlier negative trend. The ethical life insurance concept regulation can facilitate this since 2017, and it can promote the rise in the number of self-care life insurance policies. With regard to voluntary pension funds, memberships may also start expanding, and the share of non-paying members may also decline. Overall, ideally the life insurance and pension fund coverage may reach the earlier level above 80 per cent. If the number of the economically active is assumed to be constant (at roughly 4.6 million people), the number of the corresponding insurance policies and pension fund memberships may be over 3.5 million, which could mean 1 million new self-care savers in addition to the current 2.5 million people.

1.2 SELF-CARE RESERVES – DOUBLING IN 10 YEARS

The existence of self-care products is a necessary but not sufficient condition for a self-care society. The wealth accumulated in life insurance policies and voluntary pension fund memberships should reach the level that facilitates this goal. This chapter presents Hungary's position in Europe and the expected dynamics of the expansion in self-care savings over the next decade.

Figure 2
Composition of households' savings (as a percentage of GDP) in Europe in 2015

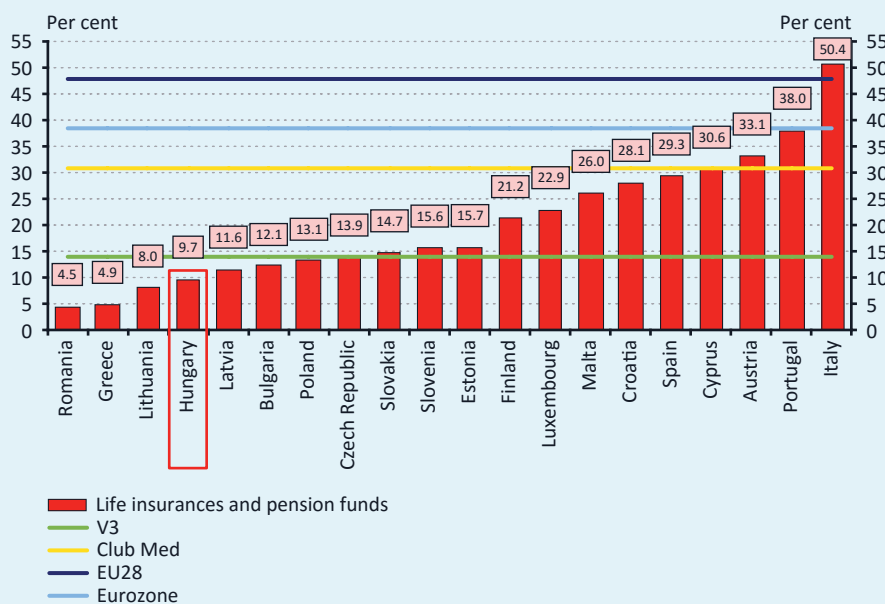


Note: V3, Club Med (Greece, Italy, Portugal and Spain), EU28 and Eurozone show the arithmetic mean of the member states.
Source: Eurostat.

Within the European Union, households' financial assets had accumulated until 2015 as a percentage of GDP (Figure 2) varies significantly across countries (Romania: 49.9 per cent; the Netherlands: 317.2 per cent). This ratio in Hungary was 105 per cent, i.e. the savings accumulated by households in 2015 already exceeded the GDP (HUF 33.7 trillion). In Hungary, the level of savings exceeds the average of the Visegrád Four, but it falls short of the average of the EU-28 and the Club Med countries (Greece, Italy, Portugal and Spain). The examination of the asset composition ratios in the individual countries reveals that the structure of Hungarian households' savings resembles the most that of Lithuania, Estonia, Finland, Bulgaria and Italy.

If only households' life insurance and pension fund savings in the individual countries are compared, Hungary has the 4th smallest volume relative to GDP (Figure 3). The Hungarian figure is 9.7 per cent, while it is 13.9 per cent in the other Visegrád countries. An even larger difference can be observed in the comparison to the Netherlands and the UK, where these savings amount to over 180 per cent of GDP. Yet it has to be noted that in the case of several countries, such large volumes are produced by the features of the local pension system, in which the pension funds operating as part of the mandatory system provide full or partial services alongside the government. The mandatory amounts cannot be fully considered part of self-care savings that individuals save voluntarily. Data from the mandatory and voluntary pension funds cannot be separated in international statistics (this causes the difference of 0.9 percentage points in 2015 in Figures 3 and 5), however, in further calculations only voluntary pension funds will be taken into account (besides life insurance policies) with respect to the Hungarian sector.

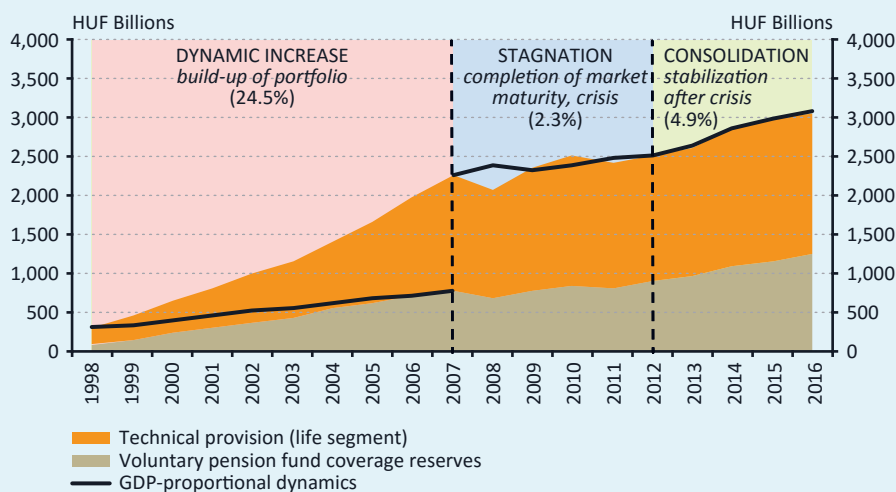
Figure 3
Households' life insurances and pension fund savings in proportion of GDP in 2015



Note: V3, Club Med (Greece, Italy, Portugal and Spain), EU28 and Eurozone show the arithmetic mean of the member states. In order to ensure that Hungary's position is visible, the EU countries requiring a higher scale were left out from the chart.

Source: Eurostat.

Figure 4
Life insurance and voluntary pension fund coverage reserves between 1998 and 2015



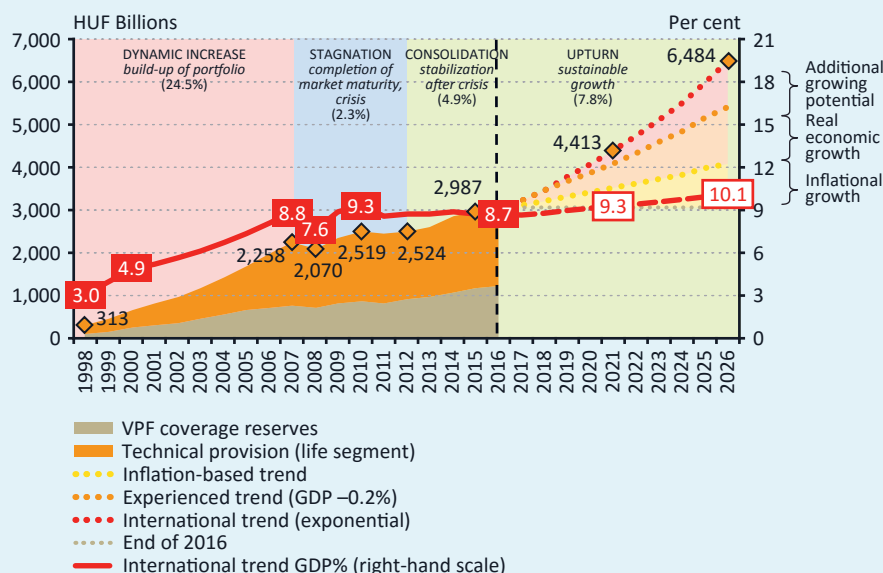
Note: The "GDP-proportional dynamics" shows calculated self-care reserves based on dynamics of GDP level at current prices from 1998 and that from 2007.

Source: MNB.

Until 2016, Hungarian households' life insurance and voluntary pension fund assets expanded in parallel with each other, at roughly the same rate (Figure 4). The section between 1998 and 2007 exhibits rapid growth, which can be attributed to stable economic growth and the gradually developing market at that time. After the 2008 crisis, both sectors experienced a downturn, then there was a slight pick-up until 2012. Then another increasingly dynamic growth period began, which may even herald a new turnaround. In the first phase, savings expanded more than GDP, while in the second phase, they were unable to exceed GDP dynamics. The two phases are shown in Figure 4 with a so-called GDP-proportional reserve path from the two years at the

beginning of the phases (1998 and 2007). The curves illustrated represent the hypothetical expansion dynamics that characterised GDP at current prices during the two periods.⁸

Figure 5
Development and projected path of life insurance technical provisions and VPF coverage reserves



In the case of self-care reserves, projections were prepared using three potential future paths (inflation-based, experienced and international trend). The first among them is the reserve path in line with inflation, which ties the expansion in reserves to the change in the consumer price index. Thus with the average annual 3-per cent growth forecast by the MNB, reserve holdings reach HUF 4,088 billion by the end of the 10th year, which exceeds the figure from the end of 2016 by more than HUF 1,000 billion (Figure 5).

When examining the divergence of past data from nominal GDP, it has been shown how important the choice of the starting point is (GDP-proportional dynamics). Similar to the dynamic development phase of self-care reserves before 2007, the economy is expected to expand steadily in the years ahead. Nevertheless, despite the stable economic growth, the pace of the increase in self-care reserves may fall short of the figures before 2008, and the consistently low yield environment has to be taken into account as well, which can substantially (and negatively) influence the accumulation of the assets by insurers and pension funds. The extent of difference during the period between 1998 and 2016 was 13.5 per cent, i.e. this is the average rate by which the reserves in the self-care sector expanded annually in excess of nominal GDP. By contrast, if the period starts in 2007, the dynamics do not differ much between the two in 2007–2016. Still, it is assumed that after the stagnation until 2012, a new upswing may have started. In this thriving period (2012–2016), the growth rate of Hungarian self-care reserves was lower than GDP growth by 0.2%, therefore the experienced trend was determined taking into account this difference. On the real GDP and inflation path forecast by the MNB, the average annual growth rate of the experienced trend derived in this manner may be 6 per cent in the next 10 years.

The third growth path was drawn up based on the observed data from other EU countries (the results and assumptions of the study can be found in Annex A). The inflation dynamics in the MNB's official prognosis were added to the dynamics between GDP per capita at current prices and self-care savings per capita. In connection with the growth rate, or international trend, derived, it was assumed that the self-care decisions of the Hungarian population are the same as the decision-making mechanisms of other EU countries and

⁸ For example, assets managed totalled HUF 313 billion in 1998, and HUF 2,258 billion in 2007. If 1998 asset holdings had expanded only at the same rate as GDP at current prices, they would have amounted to merely HUF 768 billion in 2007. This falls short of the actual past data by HUF 1,490 billion, which is approximately the same as the volume of life insurance technical provisions at that time.

that they are permanent over time.⁹ Therefore the international trend is able to show how Hungarian self-care savings can develop in the context of an economic convergence to the EU's population. According to the projection, accumulated savings are expected to be HUF 6,484 billion by 2026, which would mean annual average growth dynamics of 7.8 per cent as compared to 2016, and the doubling of the current volume. In GDP terms, this would mean that while in 2016 self-care savings amounted to merely 8.7 per cent of the gross domestic product, this figure may be over 10 per cent by 2026.

At the individual level, in 10 years the international trend may be achieved as follows: almost 3 million savers¹⁰ with average per capita savings of (somewhat over) HUF 2 million roughly add up to the sectoral target of HUF 6,484 billion. The assumptions of the experienced trend may explain HUF 5,446 billion all other things being the same. The remaining HUF 1,038 billion in savings should be collected by the new members. If the voluntary pension fund contributions are taken as a basis (see Annex C), 1 million new savers with average monthly savings of HUF 8,500¹¹ over ten years can raise the reserve holdings of the sector by HUF 1,020 billion in total. One factor reducing the result of the simplified calculation is that the new members and policyholders do not enter the market immediately. On the other hand, the result is increased by the fact that the average initial contribution to pension insurance contracts substantially exceeds voluntary pension fund contributions.

Nevertheless, the result of long-term self-care cannot be shown on a 10-year horizon, as the time before retirement in the case of the average policyholder exceeds this. Yet the calculations in Annex C indicate well that starting early is worth it at the individual level. For example a 25-year-old new pension fund member can accumulate the same savings until reaching 65 with half the amount as compared to an average pension insurance policyholder. Out of two people saving regularly roughly the same amount, the younger can start retirement with a significantly larger supplement to their pension. With an early enough start or with a great enough willingness for self-care, reserves of up to HUF 5-6 million can be amassed, which can mean a pension-supplementary rate¹² of 20–25 per cent over 20 years.

The current, and seemingly durable, low yield environment may hamper the expansion of self-care reserves. Nonetheless if the target value in Chapter 1.1 is achieved, the growing volume of life insurance policies and voluntary pension fund memberships may facilitate the realisation of the international trend as well. Moreover, if self-care savers saved more in this form relative to their income, it would entail further growth potential.

⁹ Constancy in time is supported by the past changes in the countries in the sample, as shown in Annex B, which happen in a similar direction as the shifts of the fitted curve.

¹⁰ In Chapter 1.1, 3.5 million contracts were envisaged, however, 500 thousand of the two product types were assumed to overlap.

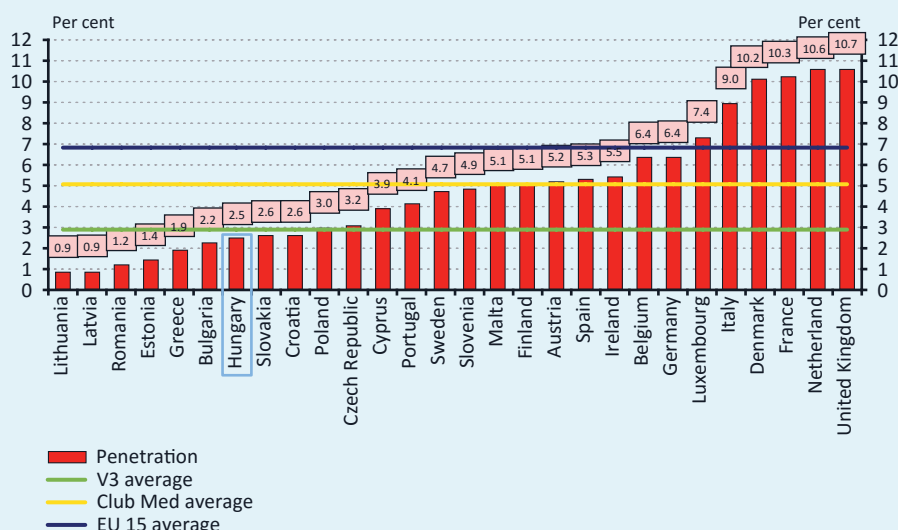
¹¹ Based on the population pyramid of voluntary pension funds, younger generations may hold more potential (see Annex D), therefore the average of the data from Annex C (between 25 and 45 years) was used in the calculations.

¹² Pension-supplementary rate: it shows the percentage by which the regular monthly benefits from self-care reserves supplement the pension from the state-run pension scheme.

2 Converging market size – *Back to the vanguard of the region*

One basic characteristic of a market is its size, determined by the revenue that can be achieved by the companies active on it. The markets operating in different countries can be compared with the help of the revenue that can be achieved by the companies operating on the given market relative to GDP. In the case of the insurance sector, the total gross written premium of the institutions can be considered the indicator determining market size, while its ratio relative to the gross domestic product, i.e. its penetration, is compared to other countries, the relative importance of the Hungarian sector can be determined.

Figure 6
Penetration in EU countries in 2015

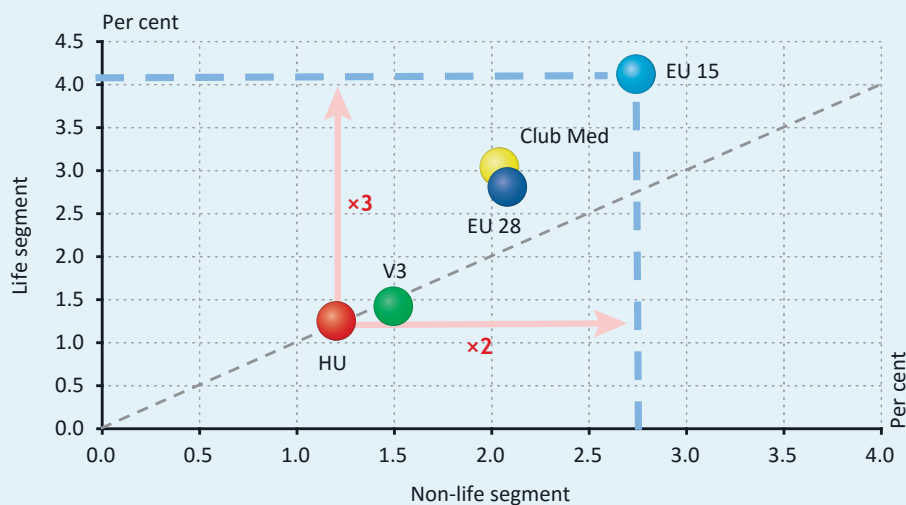


Source: EIOPA, Eurostat.

Insurance penetration in Hungary was 2.5 per cent in 2015, which can be considered low in the EU (Figure 6). This falls short of not only the average of developed Western European countries (EU-15: 6.8 per cent), but also of the Club Med countries on the periphery (5.1 per cent) and the V3 countries representing Hungary's region (2.9 per cent). The fact that Hungary lags behind countries with similar levels of economic development attests that in order to catch up with more advanced countries, not only economic convergence is required, the demand for insurance products also needs to increase.

Penetration in the life and non-life segments in Hungary was roughly the same in 2015, while the distribution was tilted towards the non-life segment in the V3 countries, and towards the life segment in the other country groups (Chart 7). If the development of the Hungarian insurance market follows the Western European pattern, the driver of the expansion in the long run (over 10 years) will be the life segment. In the short run (in the next couple of years), the dominance of the non-life segment may increase (similar to the V3) as, due to purchases of more valuable consumer goods, the average premium for the insurance linked to them (casco, home insurance etc.) grows too. Nevertheless, in the long run, as life insurance for saving purposes becomes more widespread, the life segment may start to dominate. Based on the penetration in the different segments in the EU-15, the life segment is envisaged to triple, while the non-life segment is expected to double relative to GDP.

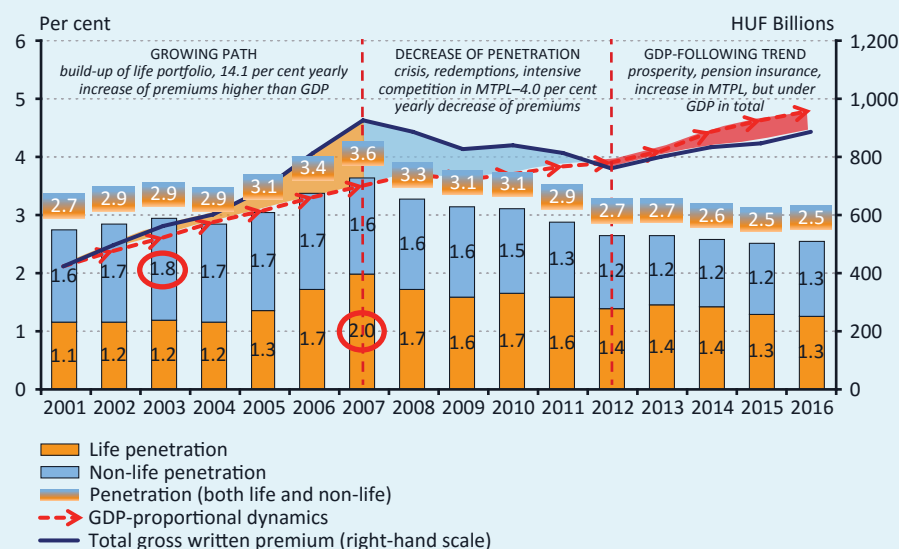
Figure 7
Insurance penetration in country groups and Hungary in 2015



Note: In this case, penetration means gross written premium without reinsurance relative to GDP. The size of the circles is in line with the sums of the two segments. V3 (Czech Republic, Poland and Slovakia), Club Med (Greece, Italy, Portugal and Spain) and EU-15 show the arithmetic mean of the given country groups.

Source: EIOPA, Eurostat.

Figure 8
Development of the domestic gross written premium and penetration



Note: The "GDP-proportional dynamics" shows gross written premiums calculated by increase of GDP at current prices starting from 2001.

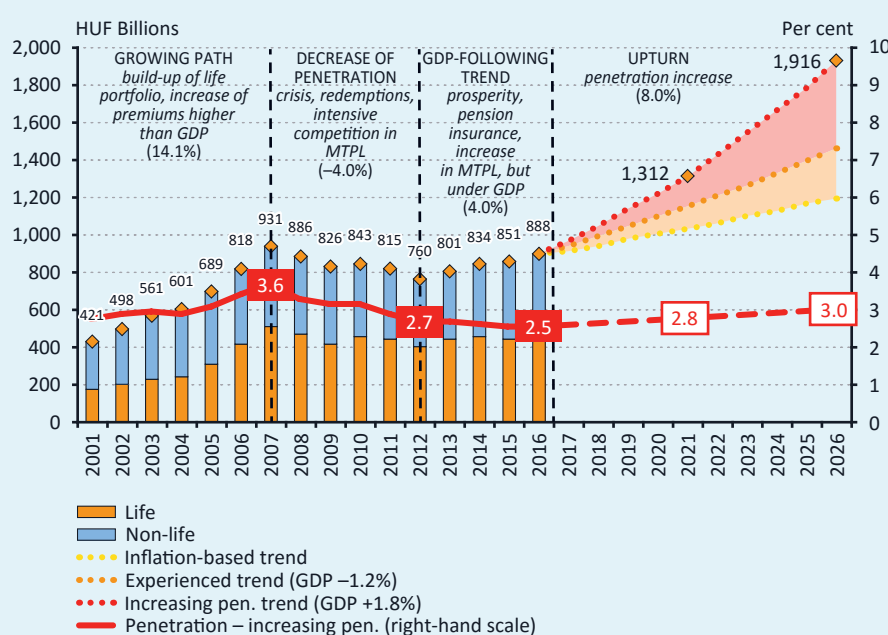
Source: MNB.

The Hungarian insurance sector experienced a steep rise in gross written premium during the years before the economic crisis (Figure 8). Between 2001 and 2007, the combined income of the two segments increased steadily, more than doubling, which means an average annual growth of 14.1 per cent. As a result of the crisis, the earlier momentum was lost, and the sector is expected to reach the same level again only now, 10 years later. In 2009 and 2012, two nadirs can be identified in the time series, however, insurers' total gross written premium started climbing again in 2013, which can be attributed to the (steady) expansion of the economy.

The growth rate of the sector's total gross written premium and of Hungarian GDP developed differently over the various time horizons. Within the whole period under review (2001–2016), dynamics of GDP level at

current prices exceeded the growth of the sector's gross written premium by 0.5 per cent on average annually, however, between 2007 and 2016 they fell short of the latter by 4.6 per cent, and even between 2012 and 2016 they were less than the latter by 1.2 per cent.¹³ The initial period of the first decade was characterised by the high penetration of the non-life segment, which was later replaced by the rise in life-segment penetration. The combined insurance penetration peaked in 2007, at the historical high of 3.6 per cent. In the crisis years, penetration diminished significantly in both segments, however, this process was halted by the renewed dynamic growth trajectory of the economy. It can be seen from the above that the country's economy needs to prosper for years in order to ensure a stable rise in the insurance market's revenues.

Figure 9
Total gross written premium and projected paths of the insurance sector



Source: MNB.

Three possible future total gross written premium paths were calculated for Hungary (Figure 9). The first is the inflation-based trend, which shows that the growth rate equals the MNB's inflationary path. This can be considered the lower estimate, where the sector remains at its current level, and the institutions increase the premiums only in line with the consumer price index. According to the calculation, insurers can expect 3-per cent growth on average annually in the next 10 years.

The second path calculated is the so-called experienced trend, in which the growth rate depends on the difference between the sector's total gross written premium and nominal GDP. It has already been noted that the extent of the difference varied across periods in previous years. The rising initial phase is considered to be unique historically, and it is not expected to be repeated. The years after the crisis would substantially revise the trend downwards, however, in this projection, shocks of such magnitude are not considered part of the natural operation of the economy. Therefore the calculations use the difference characteristic of the period between 2012 and 2016,¹⁴ which projects an overall average annual growth of 5 per cent over the next 10 years with the macroeconomic path fixed as described above.

¹³ GDP-proportional dynamics in Figure 8 show how the total gross written premium of the insurance sector would have developed if it had expanded at the growth rate of the GDP at current prices. The curves thus derived approximately indicate by how much sectoral gross written premium fell short of economic growth, or how much it exceeded the latter many times over as calculated from the given base year.

¹⁴ The changes in four years cannot be used for drawing long-term conclusions, however, in the light of the reasons excluding the previous years, the changes between 2012 and 2016 may approximate future developments better.

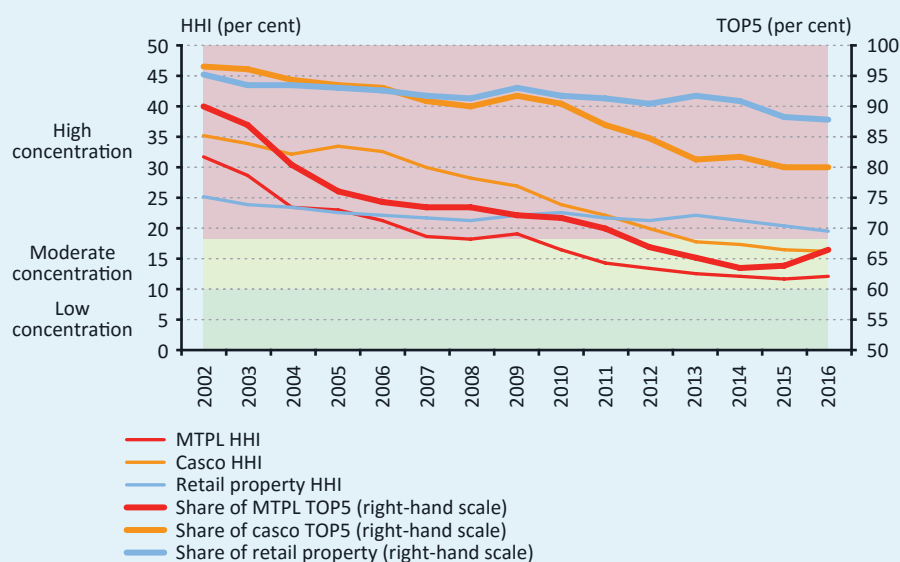
Finally, the third growth path was determined through a calculation assuming convergence (see Annex E). It was assumed that the Hungarian insurance penetration will steadily increase in the coming years, and in 10 years it will reach a level where Hungary can jump to the vanguard of the region. In order to achieve the latter, Hungarian penetration has to be at least 3 per cent. According to the calculations, for this, the sector's gross written premium should rise by 1.8 percentage points more than nominal GDP growth (8 per cent on average annually). In absolute terms, this would mean a doubling of the sector's gross written premium in 10 years.

In the short run, the increasing penetration scenario can be supported by further non-life segment premium adjustments. Another source of rising gross written premium may be the expansion of the historically low volume of casco contracts, which may be facilitated by economic growth and the ever-younger cars. In the manner described in the previous chapter, the number of contracts may rise in the life segment, too, which may also be fostered by the increasing retention period due to the ethical life insurance concept. Health insurance and professional liability insurance, which may boost society's self-care as a risk product, may emerge as new rising sectors.

3 Competitive market – *increasing competition*

Institutions' ability to generate revenue is substantially influenced by the extent of market concentration. This chapter presents the expectations and trends regarding the insurance sector's concentration. Two indicators will be used for this: the market share of the TOP 5 market-leading institutions and the value of the Herfindahl–Hirschman index (HHI). The indicators were always interpreted in the given market segment.

Figure 10
Share of the TOP 5 and the Herfindahl–Hirschman index in non-life categories according to gross written premium



Note: The background is shaded according to HHI concentration.

Source: MNB.

In the past decade, competition has become ever fiercer on the MTPL market (see Figure 10), however, this process has experienced a slowdown. One of the reasons behind this is that prices dropped, and they are increasingly unable to cover the claims and costs that arise (see Annex F). The increase of the price competition is further dampened by the decreasing significance of re-contracting campaigns and the option for intra-year, sometimes multiple premium announcements. Recently the premiums have started climbing again, which was primarily warranted by the fact that the combined ratio was over 100 per cent at the sector level. However, no further major increase in premiums is expected, as the competition between the insurers hinders this. Currently the sector is in a near-equilibrium state, where the premiums that exceed the coverage of the claims and costs but are nonetheless moderate due to the competition may provide relative stability even in the long run.

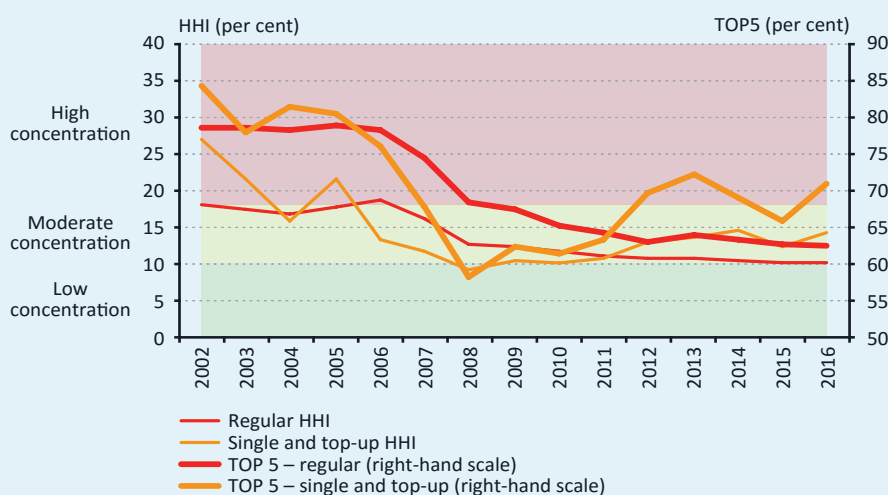
On the market for casco insurance, similar developments can be observed as with MTPL. The HHI of the sector and the market share of the TOP 5 participants has diminished in the past decade. The combined ratio is lower than in the case of the MTPL, however, the insurance tax levied on the sector distorts the situation to some extent. Going forward, competition may become even tougher on the market for casco insurance, as institutions' attention shifts from the MTPL market characterised by stronger competition due to more favourable profitability opportunities.

The third large portion of the non-life segment is home insurance, which generates handsome profits for the insurers present on the market. Clients are less likely to switch to a new product, which makes setting the

premiums more favourable to institutions. Competition may be fostered by the upswing on the real estate market, as the new insurances purchased in connection with the construction of new homes may force institutions to compete. The premium of the products purchased for new properties (that are thus more expensive than the average) is higher, therefore clients will make more effort to pick the right insurance for themselves.¹⁵

Overall, the TOP 5 companies' market share in the non-life segment has been stable until 2010, however, it has been considerably reduced by the online sales of MTPL through the portfolio equalisation mechanism of the re-contracting campaign. Non-life HHI has declined since 2002, and the pace of this process has picked up after 2010, which substantiates the impact of the above-mentioned developments. It is hoped that the HHI will reach the zone of low concentration in 10 years, catching up with the life segment (Figure 12).

Figure 11
Share of the TOP 5 and the Herfindahl–Hirschman index in the life segment according to gross written premium



Note: The background is shaded according to HHI concentration.

Source: MNB.

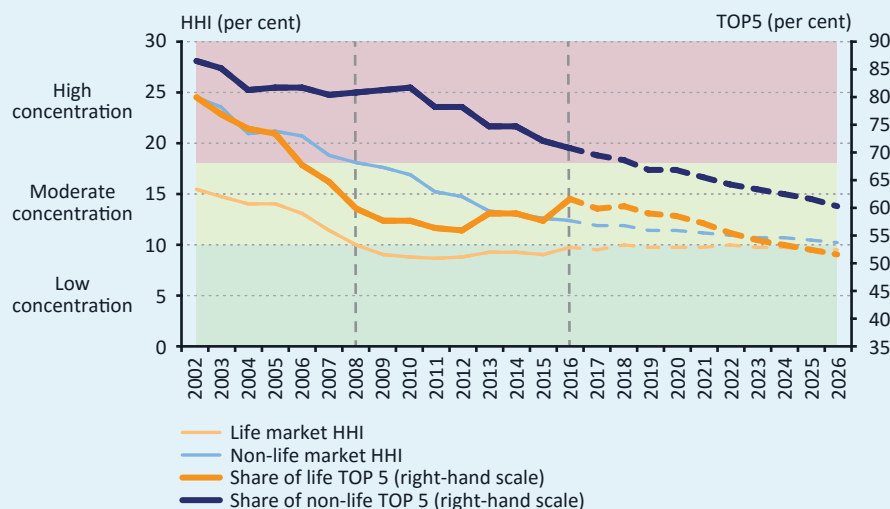
In the life segment (Figure 11), both indicators have exhibited a substantial drop in concentration since the early 2000s, although this process was halted by the 2008 economic crisis. In this profitable industry, life insurers spearheading bank (and post office) sales channels have become important participants alongside the market-leading institution. The expansion of the market was interrupted in the wake of the economic shock, and it restarted after 2012 as reflected by the market power of the five largest insurers. This development may augur market consolidation enforcing economies of scale and efficient operations, which inevitably emerge if the market size stays the same.

Based on the HHI, the whole life segment shifted from moderate to low concentration in 2007, which may be a sign of fierce market competition (Figure 12). Nevertheless, this competition was primarily for intermediaries (due to the “push market” nature of the life insurance market) rather than directly for clients. This problem is addressed by the Ethical life insurance concept,¹⁶ which may heighten competition in the life segment while also safeguarding clients' interests.¹⁷ As a result of the resulting transformed cost structure, issues related to economies of scale may become dominant, and some actors may be crowded out from the market. However, on account of the heightened competition, this process does not necessarily entail a rise in concentration, instead it smooths the power relations among market participants. In line with this, the dominance of the TOP 5 insurers on the market is envisaged to diminish in the course of the next 10 years.

¹⁵ It is assumed that clients pay more attention to the items entailing relatively large costs. Therefore in the case of homes with a higher premium, they choose home insurance with greater care.

¹⁶ Koppány Nagy, Katalin Szajkó and Ferenc Szebelédi (2016): Az MNB etikus életbiztosító koncepciójának háttere (Background of the MNB's ethical life insurer concept). Versenytükr, 3rd special Issue, Vol. XII, pp. 69–81.

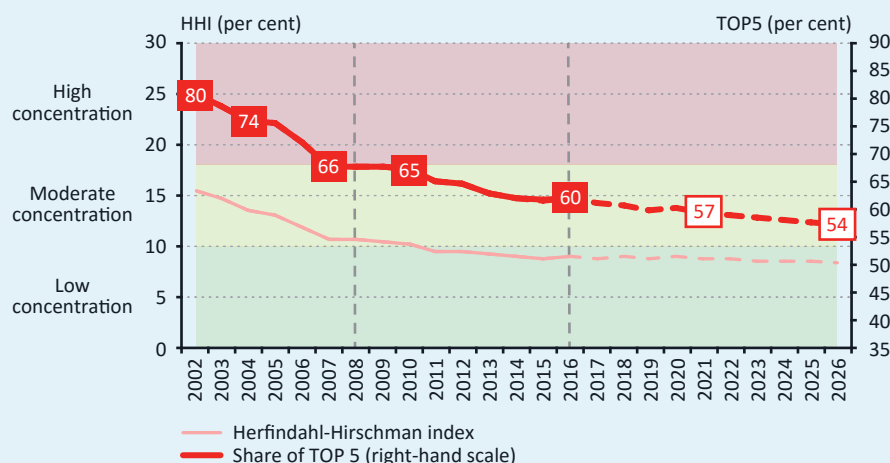
¹⁷ Miklós Dániel Mátyás, Koppány Nagy, Katalin Szajkó, Dávid Szekeres and Máté Szegedi (2016): Etikus életbiztosítás: evolúció vagy revolúció – Az etikus életbiztosítási szabályozás előzményei, elemei, hatása, nemzetközi párhuzamok (Ethical life insurance: evolution or revolution — The road to ethical life insurance regulation, its elements, impact and international parallels). Biztosítás és kockázat, Vol. III, pp. 12–37.

Figure 12**Share of the TOP 5 and the Herfindahl–Hirschman index in the sector according to gross written premium by segments**

Note: The background is shaded according to HHI concentration.

Source: MNB.

The market share of the TOP 5 and the HHI can be expressed at the sector level by combining the life and the non-life segments (Figure 13). Due to the huge weight of composite companies, the share of the TOP 5 started out from a high level in the early 2000s, and this was able to drop further only slightly in the past decade. However, the HHI stayed moderate until 2011 when it shifted to low concentration.

Figure 13**Share of the TOP 5 insurers and the whole sector Herfindahl–Hirschman index according to gross written premium**

Note: The background is shaded according to HHI concentration.

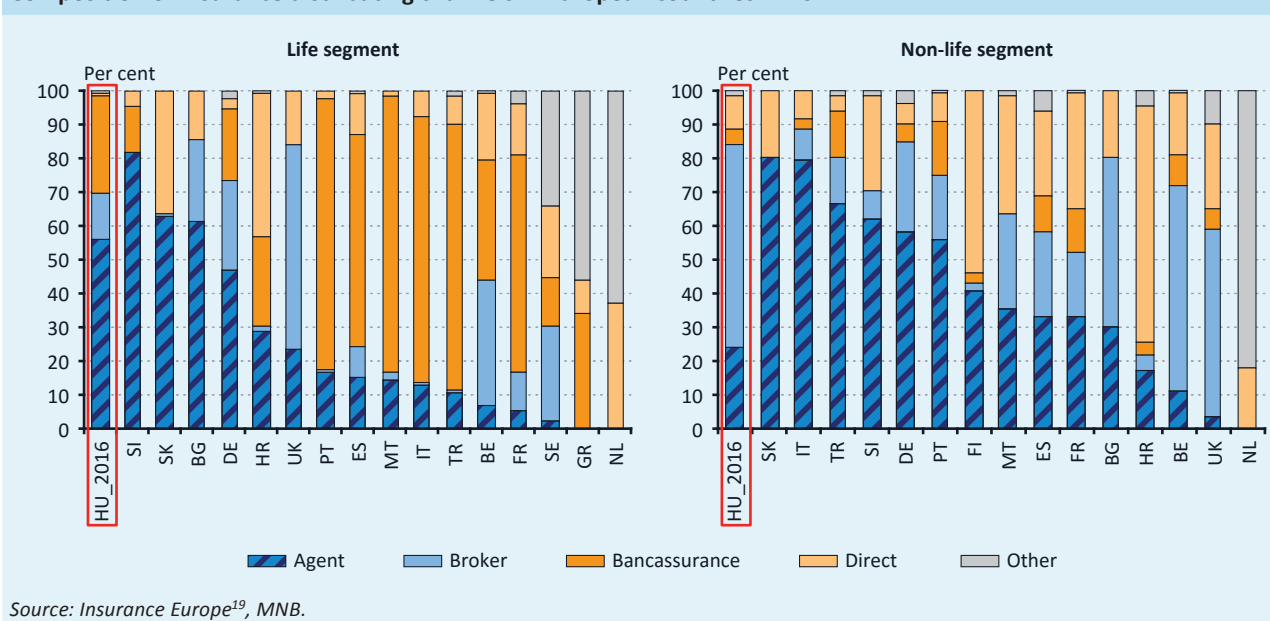
Source: MNB.

All in all, the significance of dominant market participants has gradually diminished, and going forward this process is expected to continue. Small institutions may be supported and competition may be heightened by digitalisation, which may improve institutions' operational efficiency. From the consumer side, the population's increasing financial awareness may facilitate the conscious choice of products, which may crowd out insurances with low value for money. The latter may also be fostered by the MNB's ethical life insurance concept. In the years ahead, the number of institutions is expected to shrink, which can be attributed to decisions arising from mainly unique, institutional features and issues with economies of scale. This trend may be reversed after a sustained expansion of the market exceeding economic growth.

4 Efficient sales – *Half of sales over an innovative channel*

One important element of the competition among insurers is the competition among distribution channels, which can be decided by the method of sales. Institutions may strive to choose an efficient sales method, which keeps their costs down and provides an attractive and convenient way for clients to purchase the products. This chapter presents the way in which the distribution mix is expected to shift.¹⁸¹⁹

Figure 14
Composition of insurance distributing channels in European countries in 2014¹⁸



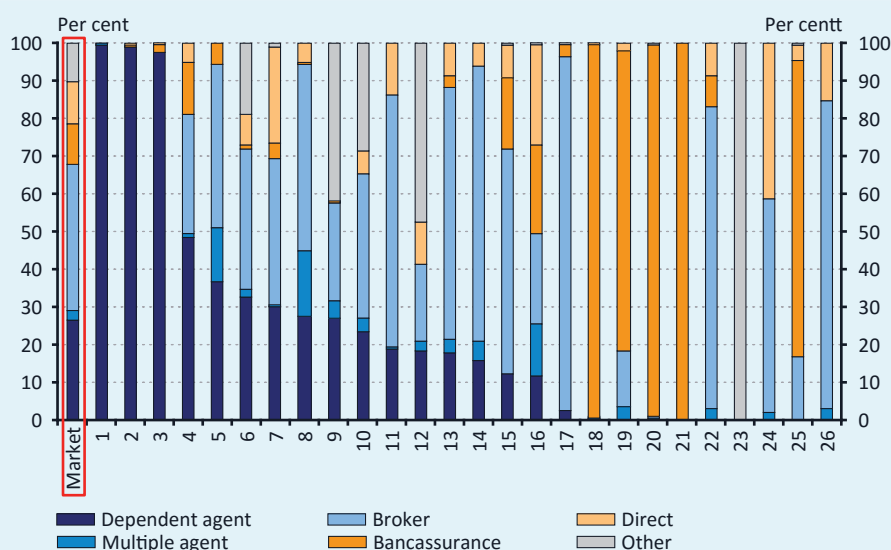
European countries show a varied picture (Figure 14). In the case of life insurances, bancassurance and (personal) intermediation by agents is widespread in Europe, just like in Hungary. In the case of non-life insurances, the share of bancassurance is much lower, while direct sales, which here may include electronic sales as well, is much greater. Overall, the international examples show that the new, innovative sales channels²⁰ are present and widespread in both segments.

¹⁸ The data published by Insurance Europe do not cover the Hungarian market, therefore the first available data from 2016 was used instead. When interpreting the diagram, in addition to the different dates covered, it also has to be taken into account that the definition of the sales channels may vary, since reporting is not standardised at EU level.

¹⁹ The data can be found in another arrangement here: <http://www.insuranceeurope.eu/sites/default/files/attachments/European%20Insurance%20-%20Key%20Facts%20-%20August%202016.pdf>

²⁰ Innovative channels are considered to include bancassurance, direct sales, online intermediation, in contrast to traditional agent channels, such as dependent agents, multiple agents, brokers (in person).

Figure 15
Composition of insurers' sales according to number of contracts in 2016



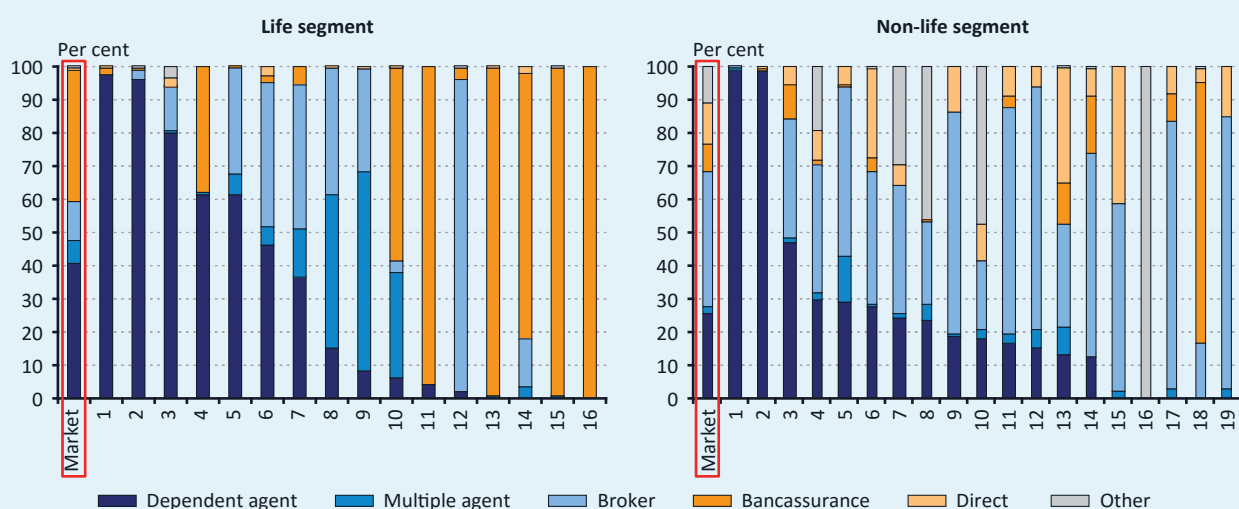
Note: The other category mainly contains sales by law firms and travel agencies.

Source: MNB.

Nowadays, 39 per cent of the contracts sold on the market (using weighted average) can be linked to brokers, while the second largest category comprise dependent agents, representing over a quarter of sales in the current year (Figure 15). Bancassurance and direct sales each have a market share of 11 per cent. The latter means the insurances sold to clients directly by insurers, i.e. mainly online or over-the-phone sales.²¹

The distribution of the channels varies widely across institutions. In the case of three insurers, sales are conducted exclusively by dependent agents, while the same holds true for the bancassurance channel in three other institutions. In the case of some institutions, brokerage and other sales methods (including sales by law firms and travel agencies) are responsible for all sales, while the multiple agent and direct categories dominate nowhere.

Figure 16
Composition of insurers' sales by segment according to number of contracts in 2016



Note: The other category mainly contains sales by law firms and travel agencies.

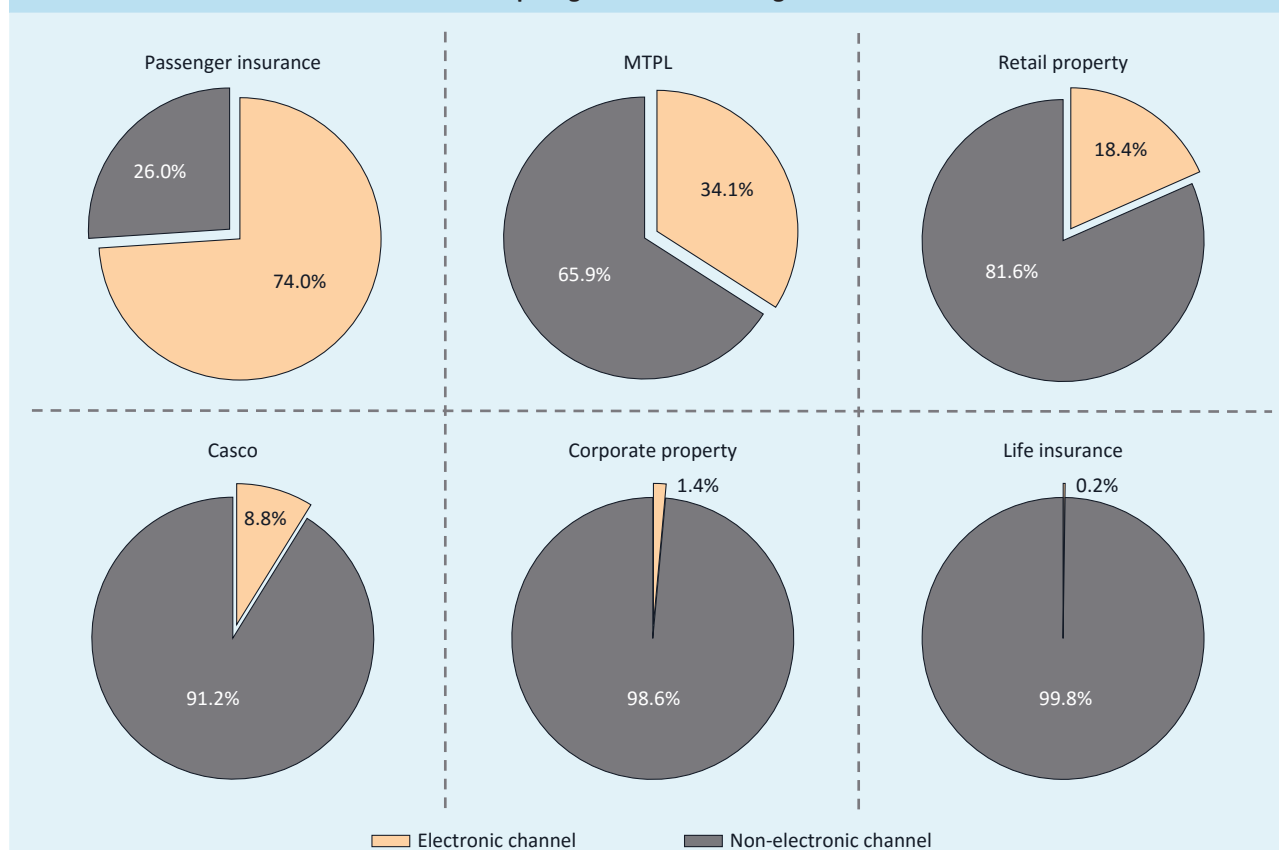
Source: MNB.

²¹ The present publication contains anonymised data at insurer level. The names of the insurers were replaced by numbers.

The differences between the insurance segments become apparent when the insurances sold are divided further (Figure 16). In the life segment, the two most dominant channels are dependent agent sales and bancassurance, comprising 40 per cent of the distribution mix each. The remaining 20 per cent is shared among the other categories (multiple agent, broker, direct and other). However, the average in the life segment is derived from extreme distributions in the institutions: two-thirds of life insurers are dominated by one sales channel, and there is practically no fully diversified distribution mix.

In the non-life segment, brokers enjoy the largest share (41 per cent), while dependent agents secure a quarter of contracts, and only one-eighth (12 per cent) of contracts are sold through direct channels. Similar to the life segment, there are institutions with an almost completely homogeneous distribution mix, however, generally non-life insurers sell in a more diversified fashion. For example the most dominant channel in the non-life segment (broker) is a sales method used by 84 per cent of insurers, while in the life segment, the same figure is 75 per cent in the case of dependent agents, and bancassurance is present at even less participants.

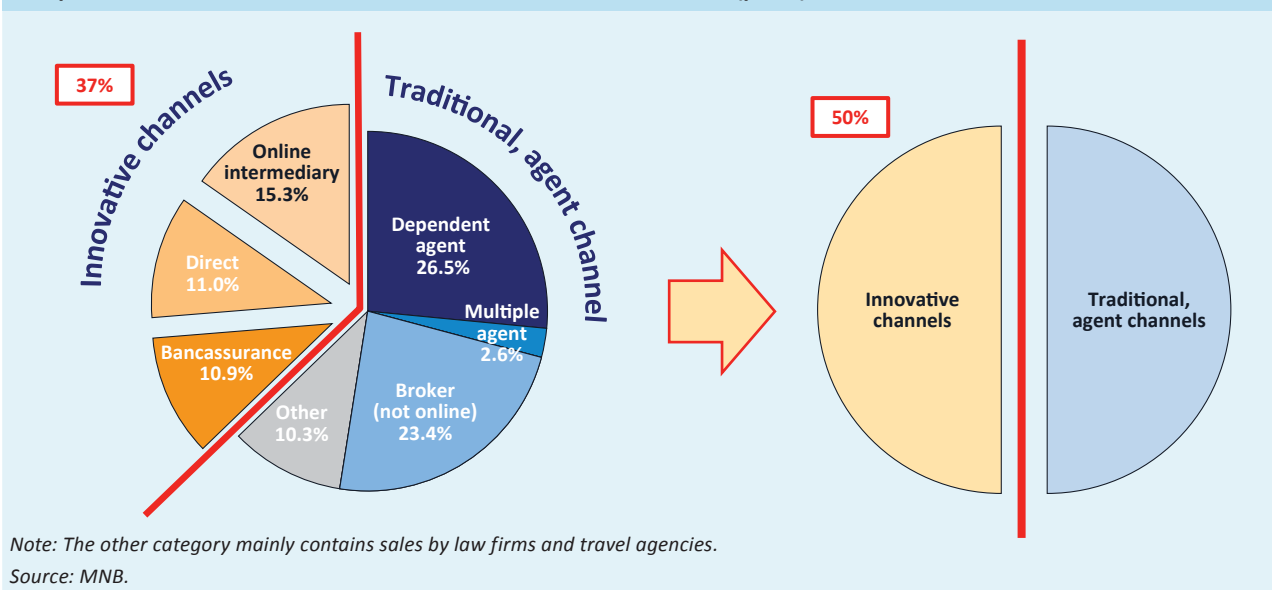
Figure 17
Ratio of electronic channel in broker and multiple agent sales according to the number of contracts in 2016



Source: MNB.

Among sales channels, brokers' sales method changes in parallel with technological progress and clients' needs. Earlier broker and multiple agent sales were always conducted in person, however, electronic sales have become central in the case of certain products. Based on the reporting by independent intermediaries, 74 per cent of travel insurances and 34 per cent of MTPL insurances were purchased electronically in 2016 (Figure 17). Lower proportions can be seen in the case of retail property insurances (18.4 per cent) and casco insurances (8.8 per cent), and business insurances (1.4 per cent) and life insurances (0.2 per cent) represent an insignificant share.

Figure 18
Composition of distribution channels in the whole insurance sector (piece)



If the data from Figure 15 is realigned, the intermediary market can be divided into traditional agent channels (dependent agent, multiple agent, broker [offline], other) and innovative channels (bancassurance, direct sales, online intermediation). The innovative category includes all methods of acquisition that provide an opportunity to insurers for using new business models. These channels are typically cost effective and have strengthened in the past 10–15 years. The current share of innovative channels is 37 per cent, however, their proportion is envisaged to grow further within sales channels, possibly reaching 50 per cent in the next 10 years within all contracts sold (Figure 18). The further spread of these channels may also be driven by changing client needs preferring digital administration and cost effectiveness considerations, which can both be satisfied if the above-mentioned channels are used. Nonetheless, the role of traditional agent channels will persist, it is projected to become clearer as clients expect greater expertise and value added from them.

The transformation of the composition of sales channels may be influenced by the fact that clients signing the contracts are more careful when deciding about life insurance, and they seek to purchase insurance at larger, more established institutions. It can be observed that a large, ever-increasing share of life insurances comprise life insurances for saving purposes, and with respect to them, consumer behaviour may be similar to how savings are managed. Thus, consumers strive to maintain closer ties to a financial institution, use the services of advisers and connect this with their other financial matters (bancassurance channel).

In the case of non-life insurances, the product's risk feature dominates, which is increasingly found online (not personally) and through intermediaries (using a broker or multiple agent). In this segment, insurers' clients may aim to reach products with less effort (by searching electronically or leaving the search to brokers), since these do not jeopardise their savings. The product-level division shows the inverse proportion of online sales: the more expensive and for a longer term an insurance client picked is, the smaller the share of online sales are (Figure 17). In the case of travel insurances, which are purchased for a short time, three-quarters were sold online in 2016, while a fraction of this was sold in the case of retail property insurance.

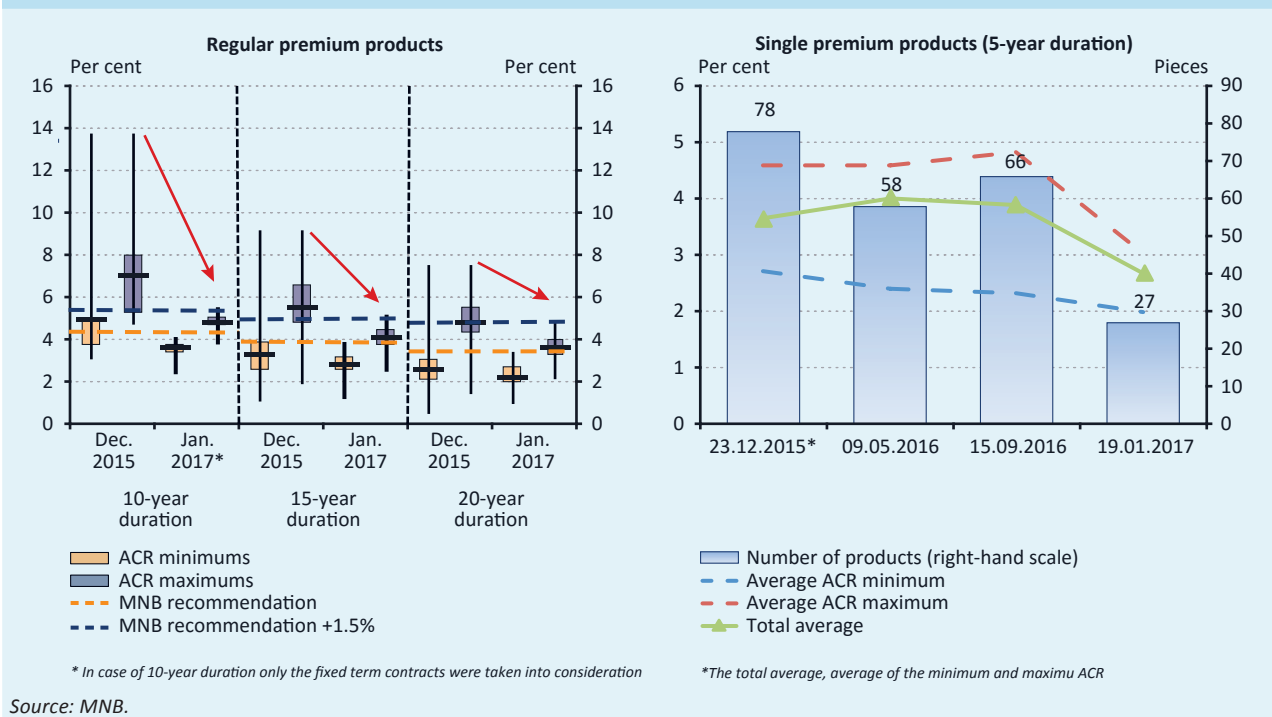
Nonetheless, from the perspective of insurers, cost effective sales are important, so that as small a proportion of the gross written premium is spent on paying commissions as possible. Assuming cost-minimising behaviour on the part of the companies, it can be concluded that the trends point to a shift towards cost effective forms of intermediation. This can be reconciled with the above by the fact that in the life segment, where consumers' information need may be greater, for example bank branches may be able to sell more cost effectively. By contrast, in the non-life segment, electronic intermediary sales may become even more dominant as a result of swift online searches, and the activities of brokers may also stay important among sales by agents.

5 Economies of scale – *Institutions operate more cost effectively with dropping margins*

5.1 ACR LIMITS FOR ETHICAL LIFE INSURANCES – *LIFE INSURANCES WITH STEADILY FAVOURABLE COSTS*

The MNB has developed the ethical life insurance concept based on the fair banking regulation, and it used new regulatory measures from 1 January 2017 to make insurers align their products and behaviour with common norms. The primary objective of the ethical life insurance regulation announced in 2015 was to increase client confidence, and the MNB focused on improving the transparency and comparability of products containing a saving element to achieve this. During the development of the new regulatory environment, not only clients' interests were taken into account, the long-term sustainability of the insurance market also appeared as a goal. One important element of the regulation was to ensure fair value for money, which could be achieved through a transparent cost structure on the one hand, and through the establishment of the cost level determined by the MNB on the other hand.

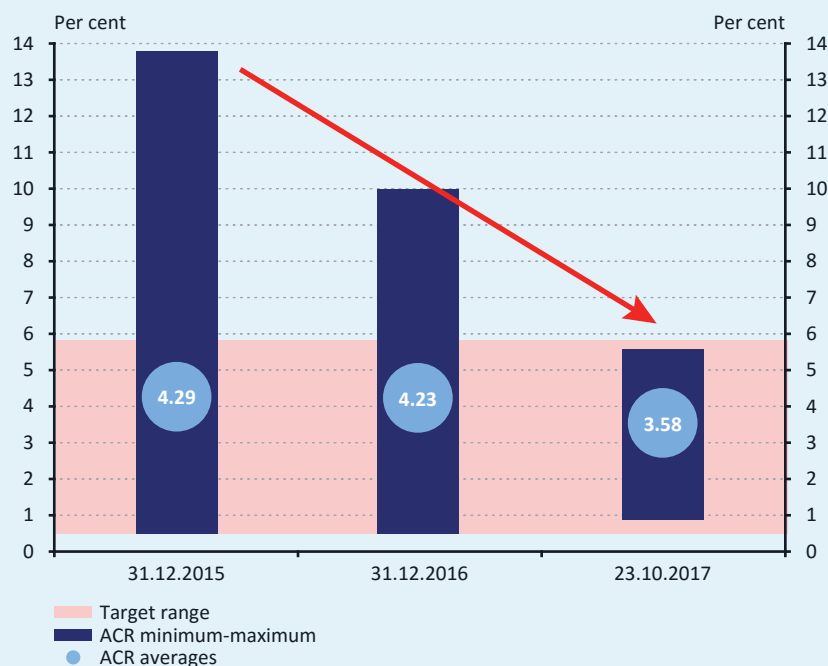
Figure 19
Changes in the ACR values of the non-pension unit-linked products



In preparation for the concept, the MNB issued a decree on the methodology for calculating the annual cost rate (ACR) that has been present on the market since 2010 to facilitate the measurement of products' cost content, which helps the comparison of the different products. For pension insurance, a similar ACR limit was introduced as early as the second half of 2015, and this was a clearly positive experience. After that, the MNB held a close consultation with the market and the legislators, as a result of which many laws were amended, and in 2016 the MNB's recommendation pertaining to unit-linked insurances was published, which expects

insurers from 1 January 2017 to use different ACR limits for the different product types. The recommendation enabled the crowding-out of expensive products and the introduction of new, cost effectively planned ones onto the market. In the case of unit-linked (UL) life insurance policies, ACR values decreased significantly after the regulation entered into force (Figure 19), which can be observed in the case of both regular-premium products (including various durations) and for single-premium ones.

Figure 20
Development of regular-premium unit-linked life insurances' ACR values



Megjegyzés: Az ábrán a tartamos életbiztosítások 10, 15 és 20 éves és a whole life 15 és 20 éves TKM értékei láthatók, mivel az MNB ajánlás limitei ezekre az értékekre vonatkoznak.

Source: MNB.

Note: Life insurances with 10-year, 15-year and 20-year duration and whole life insurances with 15-year and 20-year duration are presented since limits in the recommendation of the MNB apply to these products.

A major portion (83% at the end of 2016) of life insurance policies is made up of regular-premium insurances, therefore the effect is the greatest here. In the case of regular-premium UL life insurances, the recommendation proposes ACR values of 4.25, 3.95 and 3.5 per cent for durations of 10, 15 and 20 years, respectively.²² These can be exceeded by 1.5 per cent by the insurer if the product or the chosen asset fund means some kind of a bonus for the client (e.g. it provides greater-than-average risk coverage, or the composition of the asset fund enables higher yield potential). As a result of the new limit system, the average ACR value of the total unit-linked holdings has dropped from 4.29 per cent since the start of the regulatory systems' development (2015) to 3.58 per cent by October 2017 (Figure 20). The MNB has fulfilled its objective linked to ACR limits, i.e. that the ACR should not exceed the recommended value. It can also be observed that the range of products has become more homogenous, therefore healthy competition can arise on the market, in which the quality of the service dominates alongside the price. Going forward, the maintenance of this client-friendly situation is the long-term objective, which will be supported by the MNB with all its available means.

²² In the case of whole life policies, the recommended level is expected to be met from the 15th year.

5.2 NON-LIFE COMBINED RATIO – MARGINS ENSURING SUSTAINABLE OPERATION

In the case of insurance activities, the premiums collected by the institutions are expected to cover the value of the services and the costs arising during operation. The two are represented well by the combined ratio that can be interpreted at both the product and the sectoral level. When the indicator rises above 100 per cent, it is not considered to be sustainable in the long run from a prudential perspective. Nevertheless the combined ratios falling well short of 100 per cent clearly show the overpricing of an industry where unreasonably high premiums are determined.

Figure 21
Combined ratios of European countries by main non-life categories in 2015

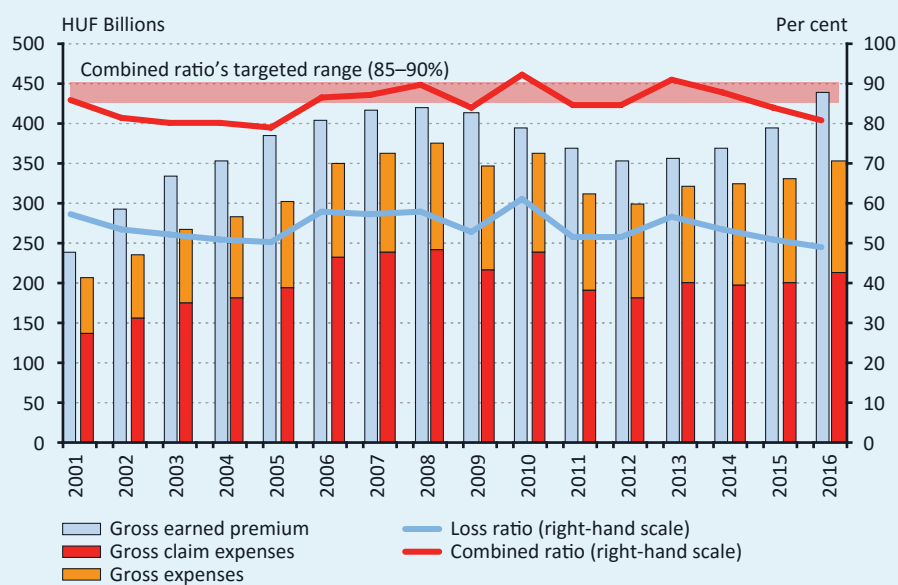


Source: EIOPA.

Figure 21 compares Hungary to other EU countries in three risk buckets using EIOPA data. In the case of the MTPL sector, Hungary shows average performance with a combined ratio of 101 per cent measured at the sectoral level (in 2015), and that is the limit where institutions can barely finance the operation of the sector. In the case of several countries (e.g. France, Romania etc.), values well over 100 per cent can be seen, which may be attributable to reporting errors or a snapshot of the above-mentioned unfavourable situation. With

respect to casco insurance, Hungary's performance is also average, however, a much lower share of European countries are above the critical level, and by much less. In the fields of fire and other damage, Hungary is in the lowest third of the countries, and no country has more than 100 per cent. Despite the characteristic feature of the snapshot, it can be readily observed that out of the three categories, usually the MTPL sector is the closest to the limit of sustainability. Casco is slightly more profitable than that, while fire and other damage represent the main category with the largest profits in the field of non-life insurance.

Figure 22
Development of non-life combined ratio



Source: MNB.

Based on the MNB's regulatory time series data, the combined ratio of the whole non-life segment fluctuated between 79 and 92 per cent in the past 15 years (Figure 22). Its development was mainly influenced by the claim ratio. Within this, claims can be considered external factors that insurers are unable to influence, and the sector can respond to high claims by setting the premiums. The two peaks of the combined ratio can be linked to extreme events: in 2010, a jump in storm damage claims caused an unexpected spike in the claim ratio, while in the MTPL segment in 2013 the combined ratio for the whole non-life segment stood at 91 per cent due to a nadir in premiums (see Annex F) after the liberalisation. Apart from the years with extremely high claim payments, the non-life segment exhibited a combined ratio of 80–90 per cent.

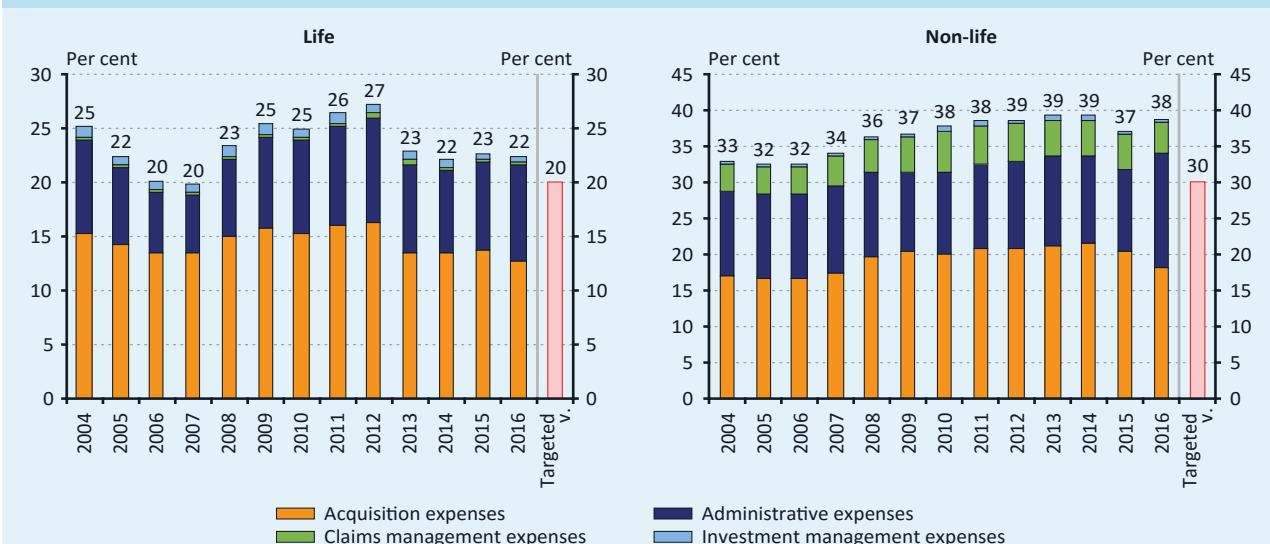
Looking ahead, the sector-level net combined ratio of non-life segment actors is considered ideal at 85–90 per cent. The width of the range falls short of the fluctuation of earlier sector-level averages; however, the boundaries are determined by two aspects. First, the insurer's activities have to be sustainable, which makes it vital that it keep its own combined ratio adequately low to fend off unexpected events in the course of normal operations. Second, institutions' profitability cannot rise above a level considered fair, therefore institutions should ideally operate with a margin²³ less than 15 per cent higher than the earned premium on average across the whole sector. The lower bound's shift from earlier experiences by 5 percentage points can be managed by insurers through cost cutting, which may be forced by the heightening competition described in Chapter 3.

²³ The "margin" presented here also includes the tax levied on non-life insurance products.

5.3 COST RATIO – INSURERS OPERATING WITH LOWER COSTS

One major measure of efficient corporate functioning is the cost ratio, which shows the portion of the institution's revenues that go towards financing the insurance activities. This chapter presents the costs of Hungarian insurers relative to their gross written premium. Furthermore, desires will be expressed about the cost levels for sectoral participants in 10 years considered ideal based on the current situation.

Figure 23
Costs of life and non-life in proportion of gross written premiums



Note: Values over the columns show the total gross cost ratio.

Source: MNB.

The sectoral cost ratios show a substantially varied picture across sectors (Figure 23).²⁴ The total cost ratio of the life segment is much lower (by 13 percentage points on average since 2004) than that of the non-life segment. Only investment costs are higher, which can be attributed to the client assets managed. The differences observed in acquisition costs is caused by the dominance of independent intermediaries in the non-life segment, which can make the operation more costly in the case of an acquisition. The higher management and claim settlement costs arise from the claim management of the non-life segment, which occur less in the life segment.

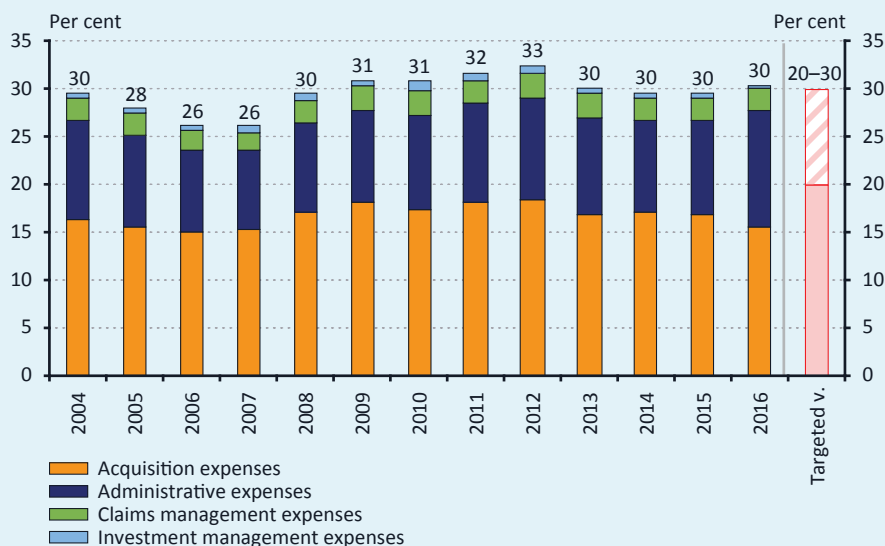
The change in the indicator is mostly caused by the variation in the gross written premium (or rather its denominator). Larger-scale cost adjustment could be observed between 2012 and 2013, when the cost ratio diminished by 4 percentage points in the life segment. Cost effective operation requires that the life segment cost indicator sink to at least 20 per cent, which may be caused by rising gross written premiums and the cost savings due to technological innovations. In the non-life segment, similar cost effectiveness could be achieved through the reduction of the cost ratio to at least 30 per cent in the next 10 years.

The 20- and 30-per cent ratios deemed cost effective were derived from historical values and the currently most efficient insurers' ratios, taking into account the fair profitability level as well. The established values can be favourable to both insurers and clients, since their achievement facilitates the operation of a system that is efficient even in the long run. They allow institutions and their owners to generate fair profits and enable clients to receive fair value for the insurance premium paid. The target value has already been achieved by one-fifth of insurers (see Annex G). The MNB has declared a strategic objective for the institutions, namely that they should reach the established target value within their own insurance segment in 10 years. The values

²⁴ The gross written premium and costs of composite insurers are distributed between the two segments.

are likely to be achieved in the future because earlier, at the time of the greatest market size, i.e. around 2007, the sector had already achieved this level, and the cost ratio increased substantially only because of the contracting market. If the sector experiences another upswing, the cost ratio between 20–30 per cent will be within reach, and its achievement may be supported by digitalisation and other innovations, while it may be hampered by further wage increases.

Figure 24
Costs of the insurance sector in proportion to the gross written premium



Note: Values over the columns show the total gross cost ratio.

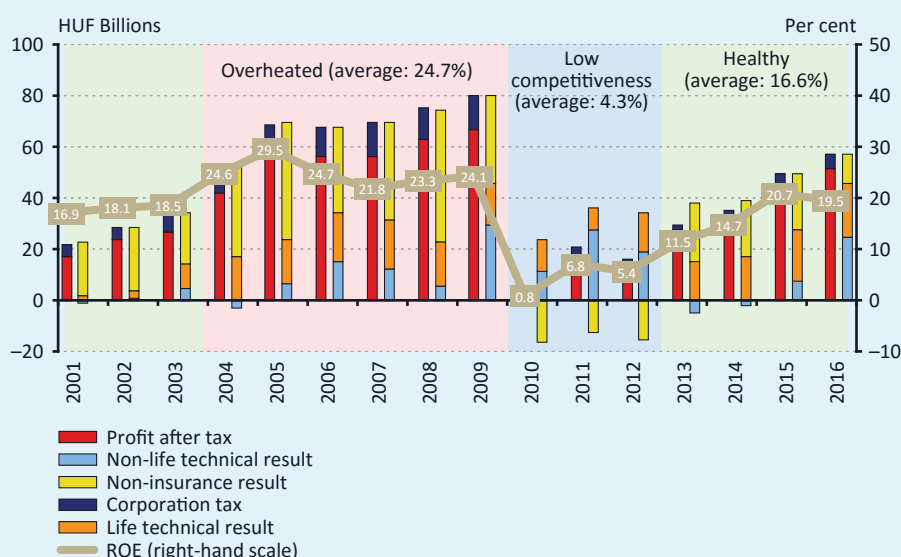
Source: MNB.

Due to the roughly same market size in the life and non-life segments, the total insurance cost ratio is close to the arithmetic mean of the values described above (Figure 24). Accordingly, purely life insurers are expected to have a cost ratio of around 20 per cent, purely non-life insurers are around 30 per cent, while composite insurers are somewhere in the middle, depending on the weights of the individual segments within their own operations.

6 Fair and competitive profitability – *Long-term confidence and stability*

Companies operating in the sector are primarily interested in their own profitability. The efficiency of the firm in generating revenues can be measured by the profitability indicators. Higher profitability makes capital owners interested in continuing to keeping their money in their companies. Reinvested profits provide an opportunity for innovation, which may improve the quality of the service. The latter is vital for increasing consumer welfare (with constant prices).

Figure 25
Profitability of the Hungarian insurance sector and its composition



Note: Calculations of the sectoral ROE values are based on yearly audited reporting in which equity contains dividend for the current year.
Source: MNB.

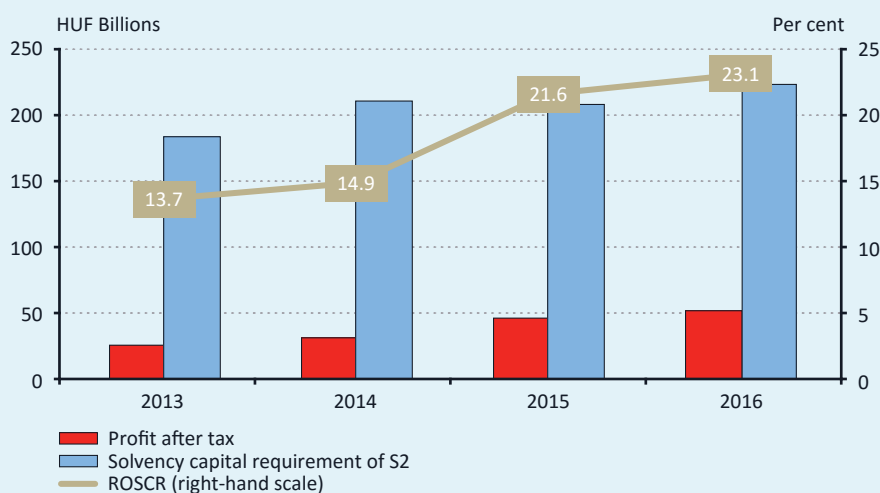
In the years before the crisis, the sector's average return on equity (ROE)²⁵ after tax was steadily over 20 per cent with a slight downward trend (Figure 25). The main driver behind high profitability was non-technical settlements. One-third of insurers were in the red in this period.

The sector's profitability experienced a local low in 2010, which is attributable to one-off effects, such as impairments recognised on shares, storm damage claims that considerably lowered the profits of the non-life segment and the surtax imposed on financial organisations. The decline is also attributable to a drop in non-technical settlements and the deteriorating non-life profits from 2013. The latter was influenced by the insurance tax on non-life insurance products replacing the surtax on financial organisations, which appeared in premiums only partly. However, as a result of the improvement in recent years, sector-level ROE was 19.5 per cent in 2016, which is still lower than the average prior to the crisis.

²⁵ ROE (return on equity) = $\frac{\text{profit after tax}}{\text{equity}}$

The number of loss-making insurers increased after the crisis, with almost 40 per cent of them in the red in 2012. After that, a steady improvement started. The ROE in the first decile of insurers was below -60 per cent in 2012, while the same was -4 per cent in 2016. The high ratio of actors that steadily post negative results is primarily attributable to economies of scale; however, as mentioned before, in the case of a positive market growth trend, an efficient company size can be achieved. In relation to actors pursuing motor third-party liability insurance, another factor key to increasing profitability could be the improvement of the segment's profitability, while the same holds true in the life insurance segment of the reduction of acquisition costs.

Figure 26
Sectoral return on solvency capital requirement (ROSCR) according to Solvency II



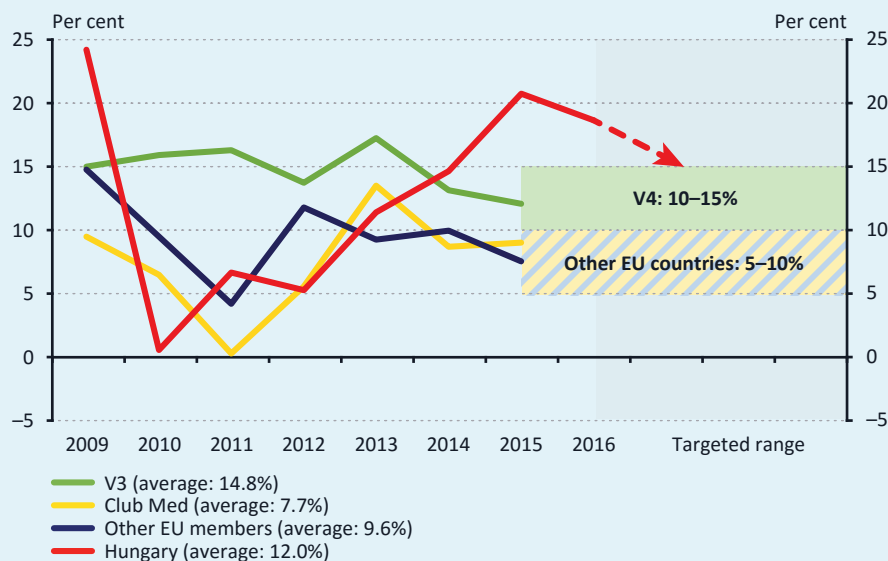
Source: MNB.

Profitability that requires adequate risk capital is represented by the ROSCR (return on solvency capital requirement)²⁶ indicator (Figure 26), which is the ratio between institutions' sectoral after-tax profits and their solvency capital requirement. The Solvency II solvency capital requirement shows the amount of capital needed from the owners to cover risks. At the sector level, the rise in after-tax profits was relatively greater than the increase in the solvency capital requirement, therefore in line with the above, the ROSCR also confirms the improvement of the sector's earnings potential.

Early in the chapter it has been noted that high profitability motivates capital owners to reinvest in the industry. In the economic environment ensuring the free movement of capital, Hungarian insurers need to compete not only with each other, but also with similar companies operating abroad. Based on the OECD's ROE data, for years after 2010, the Hungarian insurance sector fared poorer than the EU countries, and until 2014 it was behind the average of the other Visegrád countries (Figure 27). However, in the past three years, the Hungarian sector outperformed the averages of the other country groups (V3, Club Med, EU other), therefore Hungarian insurers once again boast competitive profitability at the international level.

²⁶ $ROSCR = \frac{\text{profit after tax}}{\text{solvency capital requirement in S2}}$

Figure 27
Return on equity (ROE) of the Hungarian insurance sector in international comparison

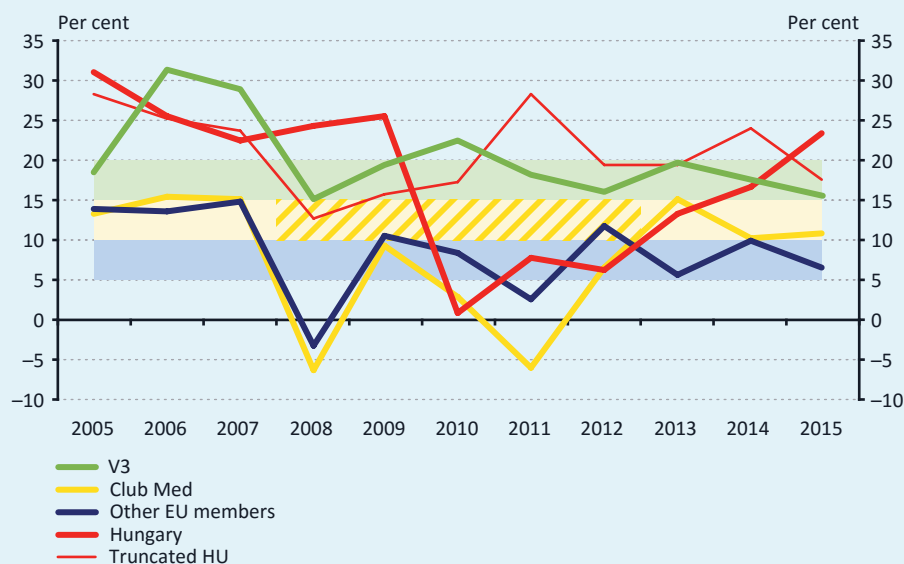


Note: V3 (Czech Republic, Poland and Slovakia), Club Med (Greece, Italy, Portugal and Spain) and other EU member (EU countries other than the above and Hungary) show the arithmetic mean of the given country groups.

Source: OECD, MNB.

Other indicators have also been used to gauge the Hungarian sector's profitability. Based on the return on solvency capital (ROSC),²⁷ in an almost identical manner as with ROE, the V4 countries have outperformed the average of the other EU countries in recent years (Figure 28).

Figure 28
Return on solvency capital (ROSC) of the Hungarian insurance sector in international comparison (S1)



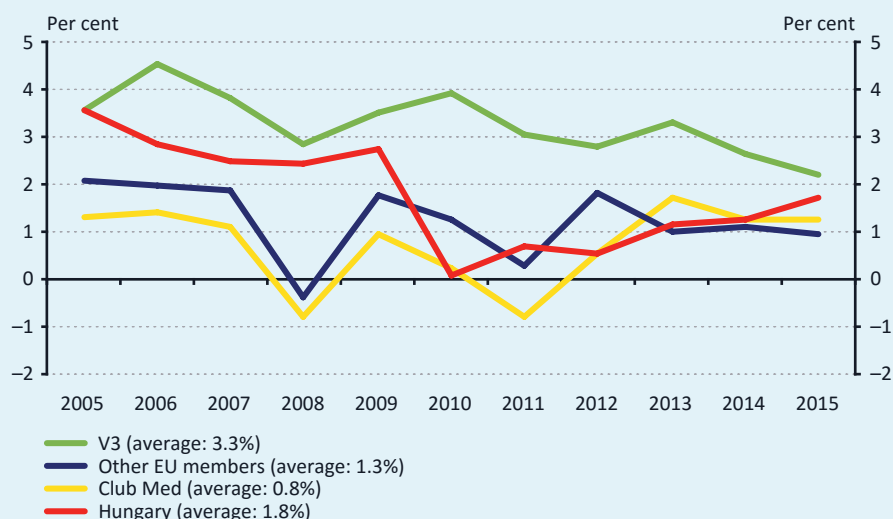
Note: V3 (Czech Republic, Poland and Slovakia), Club Med (Greece, Italy, Portugal and Spain) and other EU member (EU countries other than the above and Hungary) show the arithmetic mean of the given country groups.

Source: EIOPA, MNB and authors' calculations.

²⁷ The solvency capital used in the formula was calculated based on the Solvency I (S1) system. $\text{ROSC (return on solvency capital)} = \frac{\text{profit after tax}}{\text{solvency capital in S1}}$

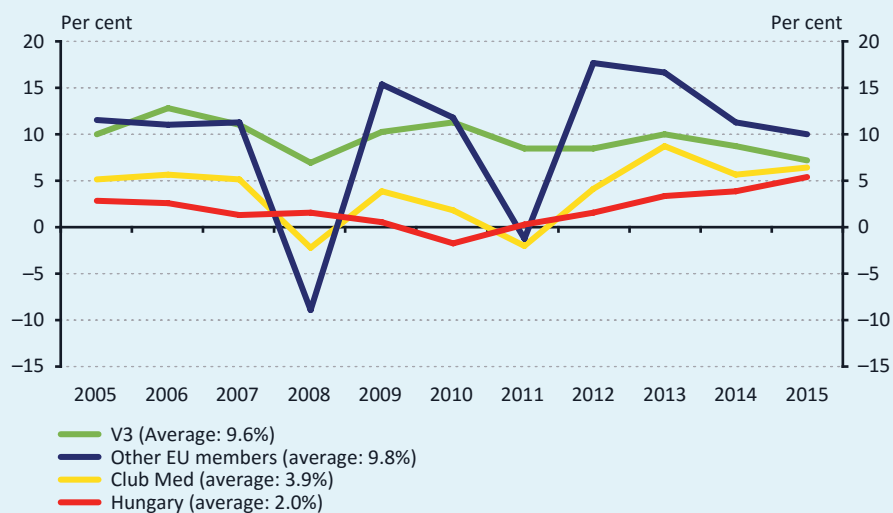
Based on the return on assets (ROA)²⁸, Hungary moved together with the Visegrád countries until 2010, ahead of the EU average, then after a slump, a gradual convergence to the countries in the region can be observed (Figure 29). Nevertheless, based on the return on premium (ROP)²⁹, the Hungarian sector fared worse than the averages of the other country groups over the whole horizon under review (Figure 30).

Figure 29
Return on assets (ROA) of the Hungarian insurance sector in international comparison



Source: EIOPA, MNB.

Figure 30
Return on premium (ROP) of the Hungarian insurance sector in international comparison



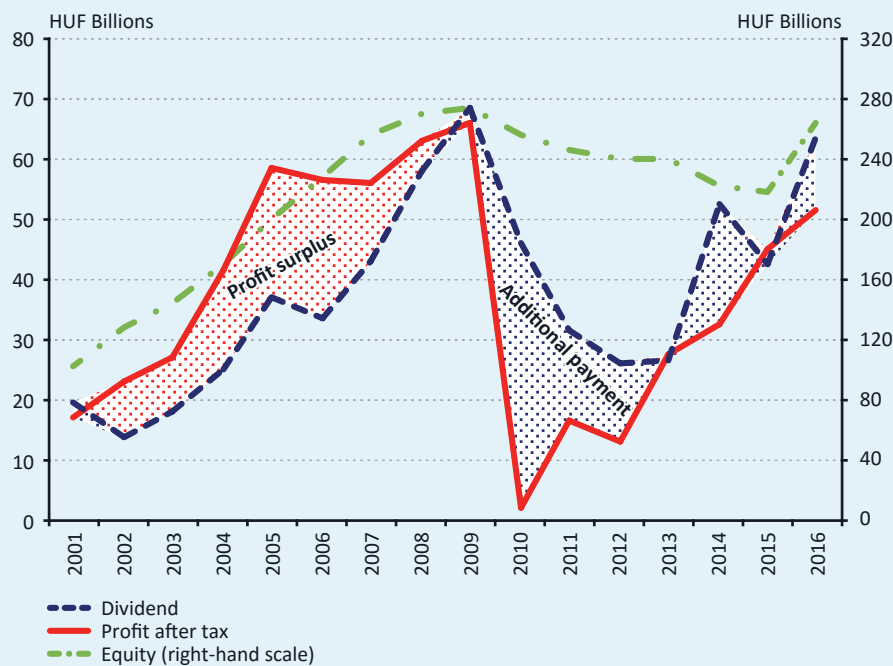
Source: EIOPA, MNB.

²⁸ ROA (return on assets) = $\frac{\text{profit after tax}}{\text{total assets (balance sheet total)}}$

²⁹ ROP (return on premium) = $\frac{\text{profit after tax}}{\text{gross written premium}}$

Taking into account future developments, the profitability of the Hungarian sector is expected to decline, which is also suggested by the fact that the long-term V3 ROE average exhibits a diminishing trend. On the other hand, in parallel with the development of the Hungarian market, converging with more advanced Western European countries, institutions may operate with lower profitability in the next decade. It may be an ideal and steady goal for the sector to remain in 10–15-per cent range, where it can stay competitive against the insurance sectors of the countries in the region and overtake other European countries. With the help of the capital stock remaining in Hungary, institutions may have an opportunity to innovate their own activities, and offer higher-quality services to their clients.

Figure 31
Link between dividend and equity



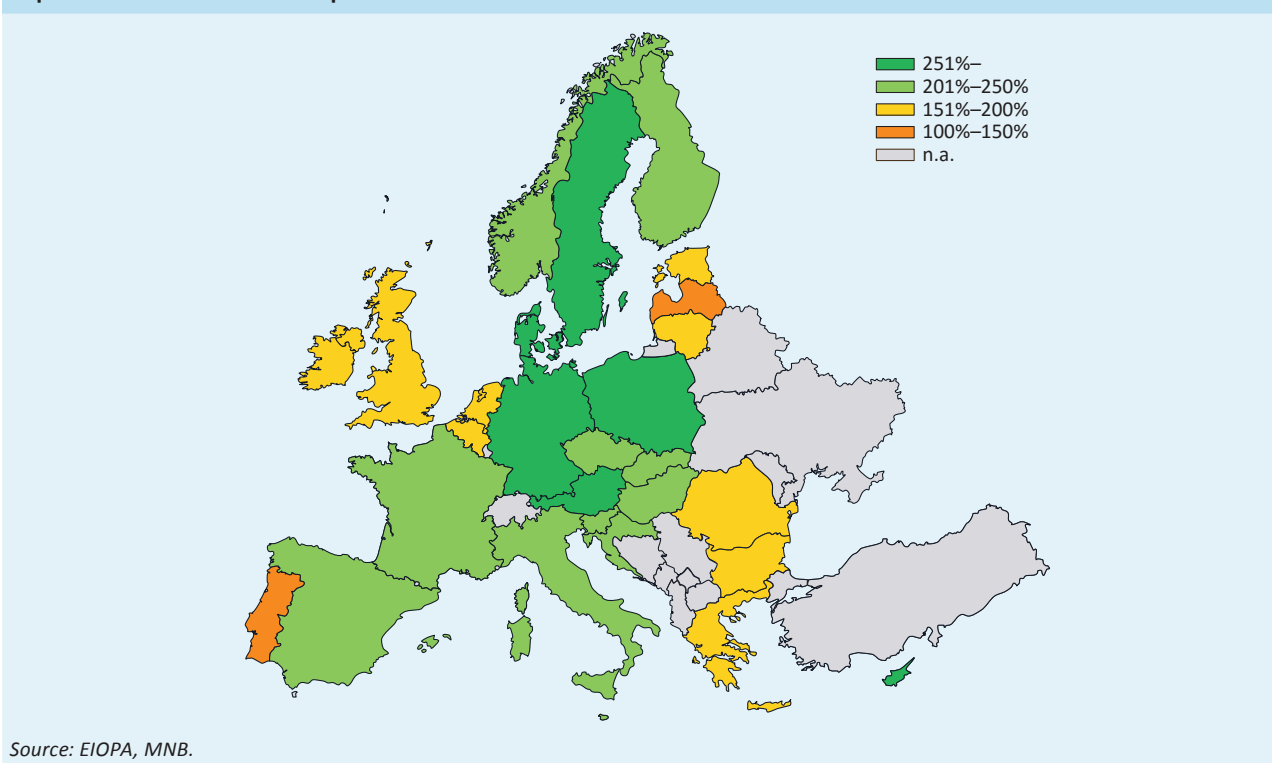
Source: MNB.

Based on the experiences from the past 15 years, the capital retention capacity of the Hungarian insurance sector has been varied (Figure 31). The pre-crisis period (before 2009) was characterised by dividend payments below the sector-level profits after tax. 2010 saw a sudden trough in the sector's profitability, and the dividend payments did not reflect this, however, its extent still exceeded the profits for the given year. Since then, sectoral profits have started returning to the pre-crisis level, but the post-crisis trend involving additional payments has persisted, which may be attributable to the increased capital requirement of foreign parent companies. In the long run, it would be desirable to retain profits (similar to the period before 2009), to finance innovations in the years ahead. In earlier chapters, progress in digitalisation and cost reduction were mentioned as examples, and the institutions that fall behind may be at a competitive disadvantage in these processes.

7 Well-capitalised insurers – *Safe and prudent operation*

In addition to the development of the sector, capital retention is necessitated by the maintenance of the institutions' capitalisation. In addition to the prudentially expected capitalisation over 100 per cent, in June 2016 the MNB published its recommendation on holding a volatility capital buffer to facilitate the adjustment to the Solvency II (S2) regulation that took effect in early 2016.³⁰ The aim of this is to facilitate continuous capital adequacy by holding additional capital in excess of the regulatory capital requirement.

Figure 32
Capitalisation rate in the European Union at the end of 2016



Average insurer capitalisation in the EU is 228 per cent, with substantial variation across Member States (Figure 32). The country-level average of Portugal and Latvia was below 150 per cent. The highest capitalisation, over 300 per cent, was observed in Denmark, Malta and Germany. The Hungarian sector's capitalisation was 215 per cent, which is around the average in the EU countries. Nevertheless, the range of the minimum capitalisation is higher in only four EU countries than in Hungary. Moreover, the capitalisation of Hungarian institutions is dispersed in a relatively narrow band as compared to other countries.

The S2 stipulates that the solvency capital requirement should be calculated in a risk-based approach by Hungarian insurers. The basic model that can be used generally in the new regulation is the standard formula, which divides the solvency capital requirement into risks and sub-risks, while the individual risks are measured

³⁰ Recommendation No. 6/2016 (VI. 14.) of the Magyar Nemzeti Bank on holding the volatility capital buffer ensuring continuous capital adequacy

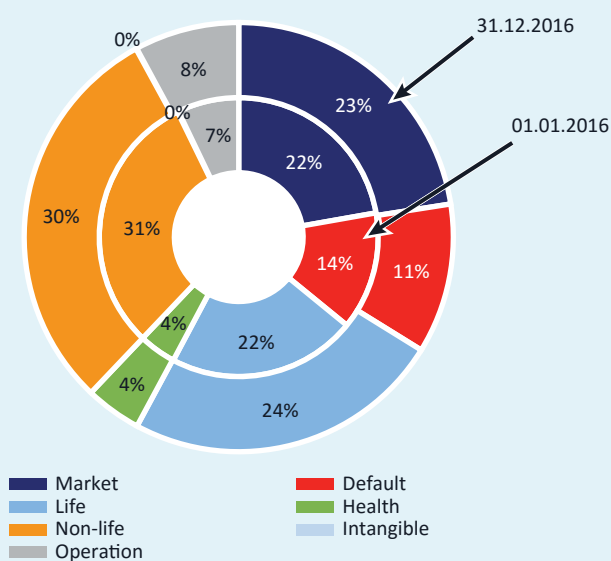
using scenarios and shocks. Then it sums up the solvency capital requirement of the sub-modules and modules, taking into account diversification effects.

Table 1
Composition of the sectoral gross capital requirement at the beginning and end of 2016
(HUF million)

	01.01.2016	01.12.2016
Market	77 132	78 566
Default	47 476	39 371
Life	75 956	83 826
Health	15 021	14 754
Non-life	106 451	104 460
Intangible	432	219
Operation	24 684	27 509
Diversification	-95 729	-98 110
Correction	-43 275	-27 186
Solvency capital requirement (SCR)	208 148	223 409

Forrás: MNB.

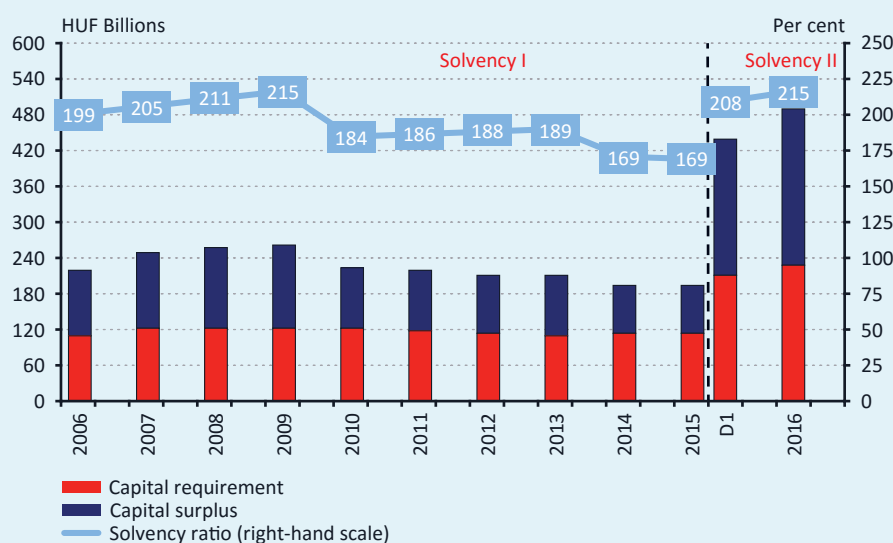
Figure 33
Composition of the sectoral gross capital requirement; reporting at the beginning and end of 2016



All institutions used the standard formula for calculating their own solvency capital requirement. In the Day-1 reporting (01/01/2016), it amounted to HUF 208 billion, then it rose to HUF 223 billion by the end of 2016 (Table 1). The distribution between the sub-modules and the share of diversification did not change much (Figure 33). At the end of 2016, the largest portions comprised the non-life insurance (30 per cent), the life insurance (24 per cent) and the market (23 per cent) sub-modules. The share of intangible assets from risks is marginal (0.063 per cent), and the proportion of the health sub-module (4 per cent) can also be considered low.

The S2 system provides an opportunity for insurers to calculate their solvency capital requirement in a manner better matching their risk profile, using a partially or fully internal capital calculation model instead of the whole standard formula or certain (sub-)modules. The use of an internal model is subject to prior supervisory authorisation. One insurer in Hungary wishes to calculate the solvency capital requirement's non-life insurance and non-life health insurance risk sub-modules from 2018 using a partially internal model, with a reference date of 31 December 2017. In the years after the first partially internal model is authorised, more and more insurers are expected to submit requests for using an internal or partially internal model better matching their own risks.

Figure 34
Capitalisation rate at the sector level



Source: MNB.

According to the S2 system, the sector-level capitalisation was 215 per cent at the end of 2016, which is almost the same as the capitalisation presented in the preparatory quantitative impact study for the end of 2014 (213 per cent), and it is consistent with the 208 per cent reported in the Day-1 submissions (Figure 34³¹). Similar to the previous decade, the sectoral capitalisation can be considered stable, and the downward trend observed since 2009 seemed to have been reversed in 2016. Available solvency capital has increased by 11 per cent as compared to the Day-1 reporting, as a result of which the sector's capitalisation has increased, albeit only marginally.

Although the capital adequacy of all insurers exceeded the threshold stipulated in law (100 per cent), the favourable sectoral capitalisation varies widely at the institutional level. At the end of 2016, the capitalisation of 23 out of 27 institutions exceeded the 150 per cent expected in the MNB's recommendation on holding a volatility capital buffer, but the remaining four insurers' capitalisation was also between 140 and 150 per cent (Figure 35). Nevertheless, four institutions have capital levels over 300 per cent.

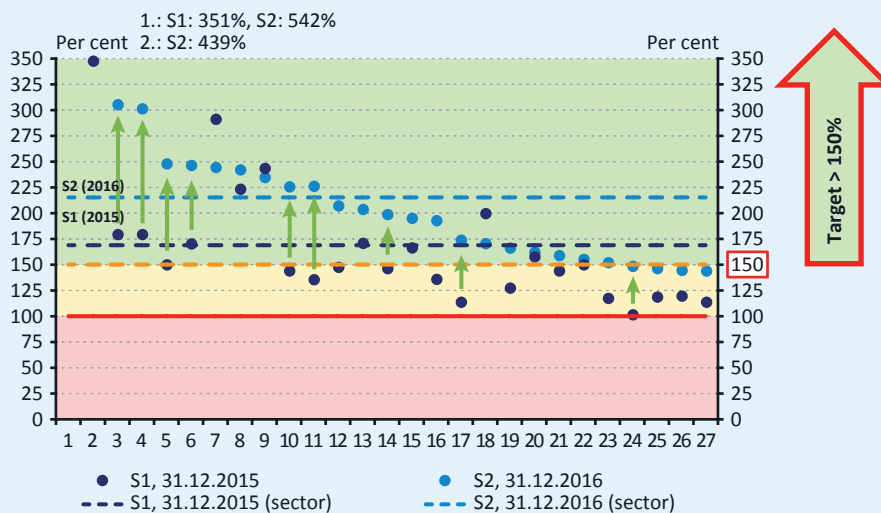
According to insurers' own risk and solvency assessments (ORSA) from 2016, the medium-term business plan for the minimum 3-year period (2016–2018) stipulated in law was prepared by all insurers with a business plan, and the target values for capitalisation are typically dispersed between 125 and 160 per cent, however, the orientating role of the expected 150 per cent communicated in MNB Recommendation No. 6/2016. (VI. 14.) on holding the volatility capital buffer can be clearly seen. Based on the data, insurers will meet their own target capitalisation levels over the horizon of the business plans.

³¹ Value adjusted for the calculation errors identified during the comprehensive audits conducted since QIS2013.

In the Day-1 reporting, 7 institutions were below 150 per cent, with their capitalisation was dispersed more than at the end of 2016. However, during the first year of the S2, these institutions raised their capitalisation, approximating or even exceeding the expected level laid down in the MNB's recommendation on the volatility capital buffer. Looking ahead, similar to the practice so far, the institutions are expected abide by the recommendation, and maintain their capitalisation of over 150 per cent in the next 10 years.

Figure 35

Capitalisation in the Hungarian insurance sector according to Solvency I and Solvency II at the end of 2015 and 2016



Source: MNB.

Conclusion

The purpose of this publication is to present quantifiable visions for the insurance sector as a whole and to sketch a potential strategic plan through the major indicators characterising the industry. The ten indicators were classified into seven main topics: self-care, market size, market structure, sales, cost effectiveness, profitability and capitalisation. The target values for the individual indicators typically denote a target that can be met in ten years (Table 2). In the other cases, the values presented are optimal, and their early achievement and long-term maintenance are considered desirable (two of these have already been met).

Goal to be achieved	Target indicator	Past	2016	Target value/ Optimal value
1. Widespread self-care <i>More savings, greater security</i>	contracts of life insurances and policies of voluntary pension funds (VPF)/ number of economically actives	79% (2007)	54%	80% above
	Reserves in proportion of GDP (life tech. + VPF coverage)	8.8% (2007)	8.7%	10% above
2. Converging market size <i>Back to the vanguard of the region</i>	penetration	3.6% (2007)	2.5%	3.0% above
3. Competitive market <i>increasing competition</i>	share of TOP 5	66% (2007)	60%	55% under
4. Efficient sales <i>Half of sales over an innovative channel</i>	proportion of innovative channels	n.a.	37%	50% above
5. Economies of scale <i>Institutions operate more cost effectively with dropping margins</i>	ACR values of UL contracts	0.5-13.79% (2015)	0.53-9.97%	0.5-5.75% permanently
	non-life combined ratio (calculated without taxes)	87% (2007)	81%	85-90% permanently
	cost ratio	26% (2007)	30%	20-30% permanently
6. Fair and competitive profitability <i>Long-term confidence and stability</i>	ROE	21.8% (2007)	19.5%	10-15% permanently
7. Well-capitalised insurers <i>Safe and prudent operation</i>	capitalisation	169% (2015 S1)	215% (S2)	>150% permanently

Source: MNB.



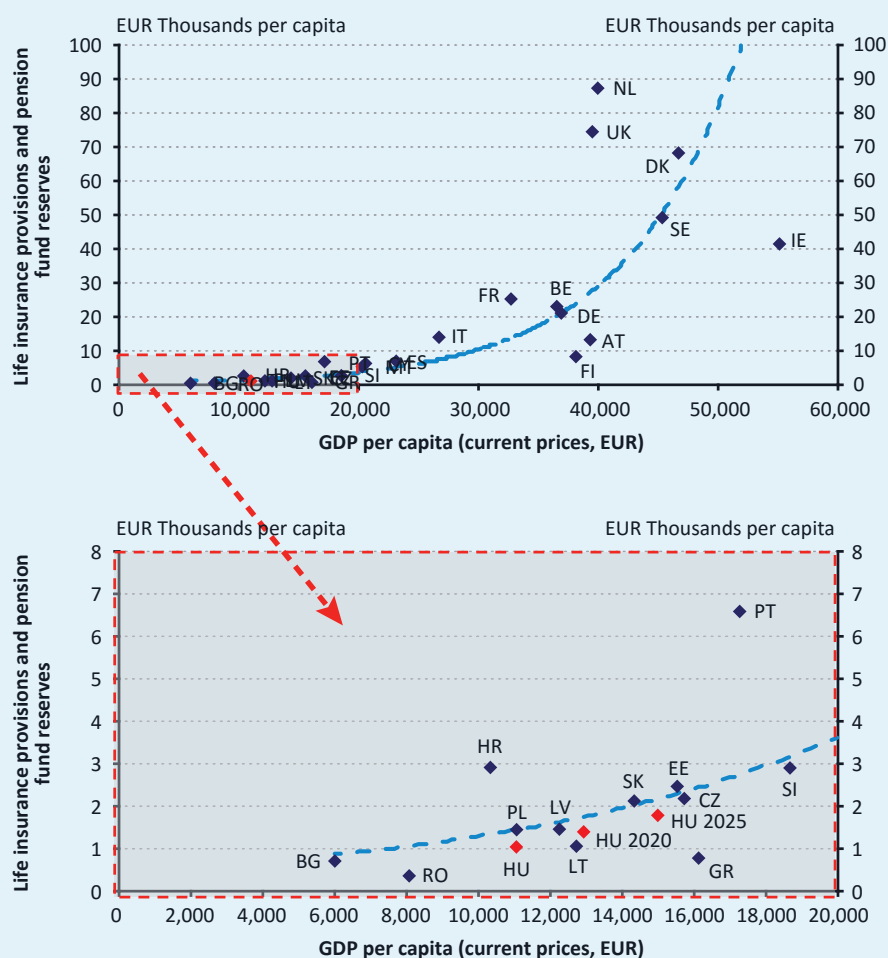
The analysis touched upon the main aspects of the insurance sector, pinpointing target values and optimal values reflecting the MNB's opinion. As the designated values are approximated, an equilibrium may emerge in the insurance sector that would entail substantial benefits for all stakeholders. In addition to strictly financial advantages, the increased focus on clients' interests and the transparent insurances with high client value and a favourable cost structure facilitate the continued development of trust and the fulfilment of insurances' social role to the fullest possible extent. The sustainable implementation of dynamic growth may mean the build-up of healthy stocks, which is the main cornerstone of long-term business development. The analysis underlines that robust growth is possible, the basis and building blocks of this are available, just like the necessary conditions. If the specified assumptions come true, the declared objectives can most likely be achieved, leading to the emergence of an insurance sector matching the country's development level and capacity. The fair and competitive profitability may provide appropriate returns for the owners, therefore keeping the capital in the country and utilising it in a way that fosters innovation may be a viable alternative when making investment decisions.

The vision outlined is intended as a guidance that can be monitored. Later, taking into account the events in the following years, it will be assessed whether the values associated with the indicators have been reached. The potential reasons behind the differences will be analysed, and the assumptions will be modified if necessary.

Annex

ANNEX A – PER CAPITA SELF-CARE SAVINGS IN EU COUNTRIES

Households' savings derived from life insurance and pension funds in proportion of GDP in 2015



Source: Eurostat.

In Hungary, households' life insurance and pension fund savings amounted to EUR 1,077 per capita in 2015 (see the above figure, which has the same data as Figure 3). Similar to the information mentioned in Chapter 1.2, Hungary has one of the lowest values. The curve fitted on the available sample was sought to show the dynamics between economic development (GDP per capita) and the indicator in question (life insurance provisions and pension fund reserves per capita). This time, Hungary is below the line, i.e. Hungarians have low savings relative to the country's level of development. The savings under review here include private pension fund assets, which may slightly distort the result. As compared to the Visegrád countries, Hungary lags far behind in terms of self-care savings. The Slovak and Czech numbers are double the Hungarian figures, and even Poland, a country at approximately the same level of development, has 1.5 times higher values than Hungary.

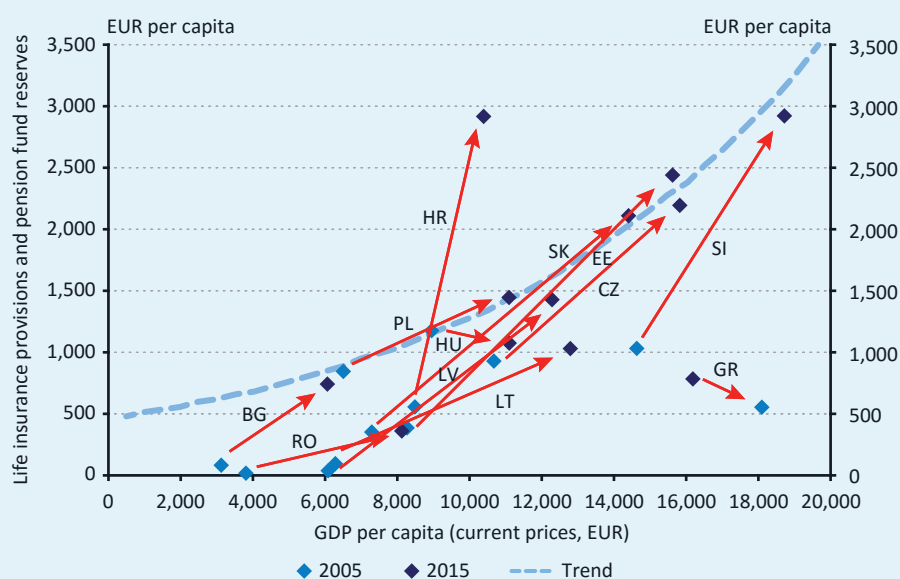
In the case of reserves, the international trend was estimated using an exponential trend fitted onto a cross-sectional sample from 2015, taking into account the growth rate of real GDP.³² Moreover, it was assumed that the correlation is constant in time, just like the consumption behaviour of the households indirectly appearing in the sample. As earlier, the results should be interpreted for the future savings volume measured in today's euros. The estimated equation is as follows:

$$\text{TART} = \alpha \cdot e^{\beta \cdot \text{GDP}}$$

where TART denotes the life insurance provisions and voluntary pension fund reserves per capita, and GDP denotes GDP per capita (at current prices). The estimated parameters³³ are significant, and the strong explanatory power of the equation is indicated by the value of R^2 (0.83). The forecast of the Hungarian data for 2020 and 2025 is presented on the above figure, where on average self-care savings expand by 5.1 per cent annually in the first five years, then by 5.4 per cent in the second half of the period. Life insurance provisions and pension fund reserves per capita may rise to EUR 1,382 by 2020 and to EUR 1,799 by 2025. The numbers here show real growth, since they were calculated with only real GDP without inflation. The actual future data may be different. The accumulated wealth may be influenced by exchange rate movements, inflation developments and the variation in the asset yields.

ANNEX B – DEVELOPMENT OF LIFE INSURANCE PROVISIONS AND PENSION FUND RESERVES IN EU COUNTRIES (BETWEEN 2005 AND 2015)

GDP per capita: Below EUR 20,000

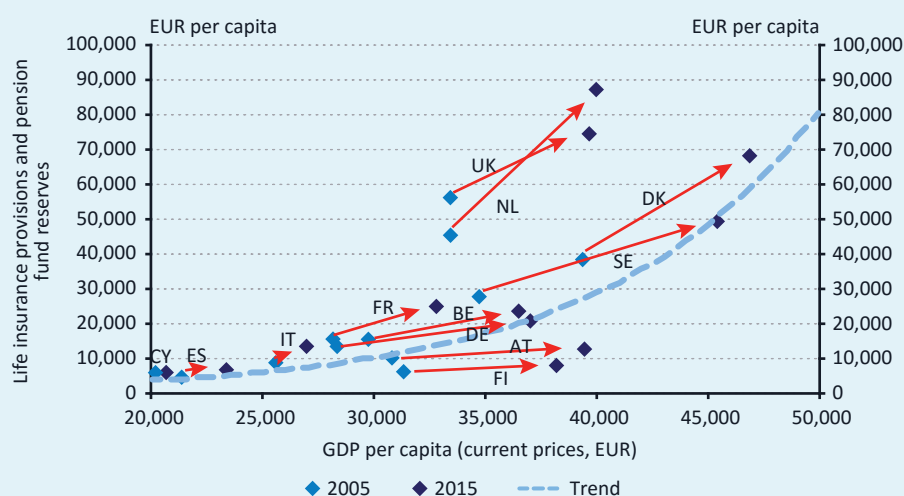


Source: Eurostat.

³² As earlier, (in the first two years) the path projected by the MNB's March 2017 Inflation Report and the growth rate based on simplified assumptions were used in the calculations with respect to real GDP and inflation.

³³ $\alpha = 454,95$ and $\beta = 1,04 \times 10^{-4}$

GDP per capita: EUR 20,000–50,000



Source: Eurostat.

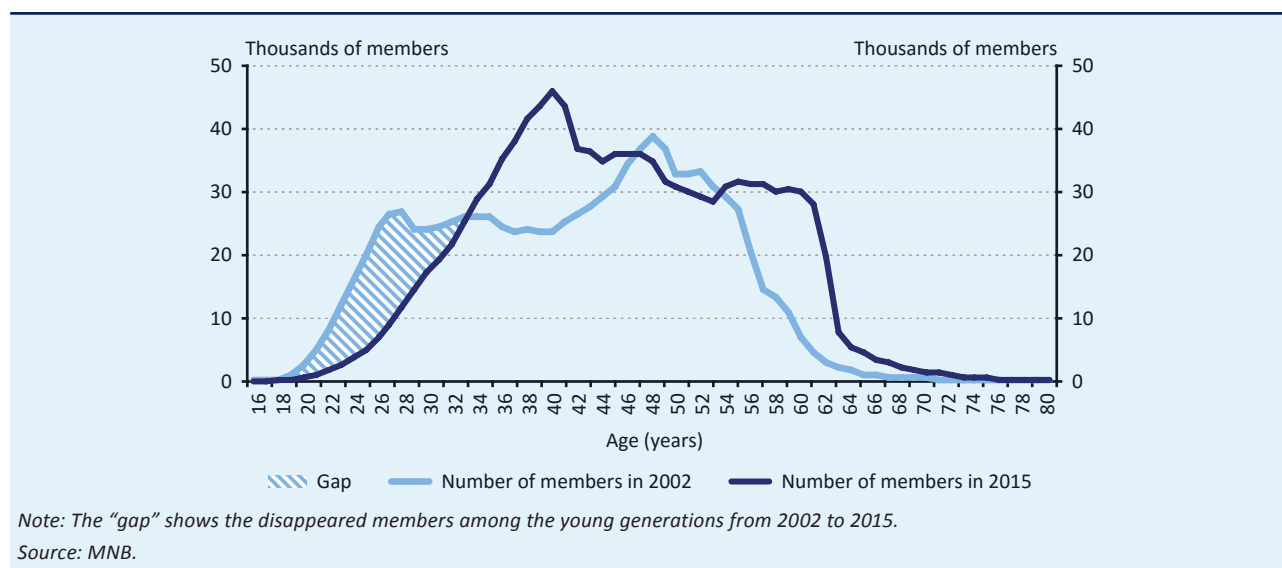
ANNEX C – OPERATION OF POTENTIAL SELF-CARE PRODUCTS WITH INDIVIDUAL-LEVEL CALCULATIONS

	Voluntary pension fund		Pension insurance
Entry age/average pension insured age	25 years („Early Bird”)	45 years	45 years
Average payment	7 600 HUF/month	9 500 HUF/month	17 490 HUF/month
Saving	HUF 5 357 000	HUF 2 865 000	HUF 5 121 072
Starting monthly annuity	HUF 27 138	HUF 14 514	HUF 25 864
'Pension-supplementary rate'	24.25%	12.97%	21.11%

Conditions

- 'Pension-supplementary rate': Annuity derived from self-care savings compared to average pension
- Regular membership fee during membership period
- 2% real yield
- 20% tax credit
- Life expectancy in age of 65: 16.5 years
- Average pension: 111,900 HUF/month (according to monthly data of Central Administration of National Pension Insurance (ONYF) June 2017)

ANNEX D – COMPOSITION OF MEMBERSHIP OF VOLUNTARY PENSION FUNDS BY AGE IN 2002 AND 2015



ANNEX E – HYPOTHETICAL, SECTORAL AVERAGE ADDITIONAL GROWTH NEEDS FOR THE ACHIEVEMENT OF VARIOUS TARGETED PENETRATION LEVELS

The extent of penetration is determined by the proportion of gross written premiums and nominal GDP. The penetration (PEN_t) in every t periods is derived from the initial penetration (PEN_0) and the average growth rate of the numerator and the denominator. In the below formula, d is the growth rate of the gross written premium, while g denotes the expansion of nominal GDP:

$$PEN_t = \frac{PREMIMUM \cdot (1+d)^t}{NOMINAL DGP \cdot (1+g)^t} = PEN_0 \frac{(1+d)^t}{(1+g)^t}$$

Average additional growth necessary for achieving greater penetration in a t period (β) – with a given initial penetration level, nominal GDP and gross written premium growth rate:

$$\frac{PEN_t^B}{PEN_t^A} = \frac{(1+d+\beta)^t}{(1+d)^t}$$

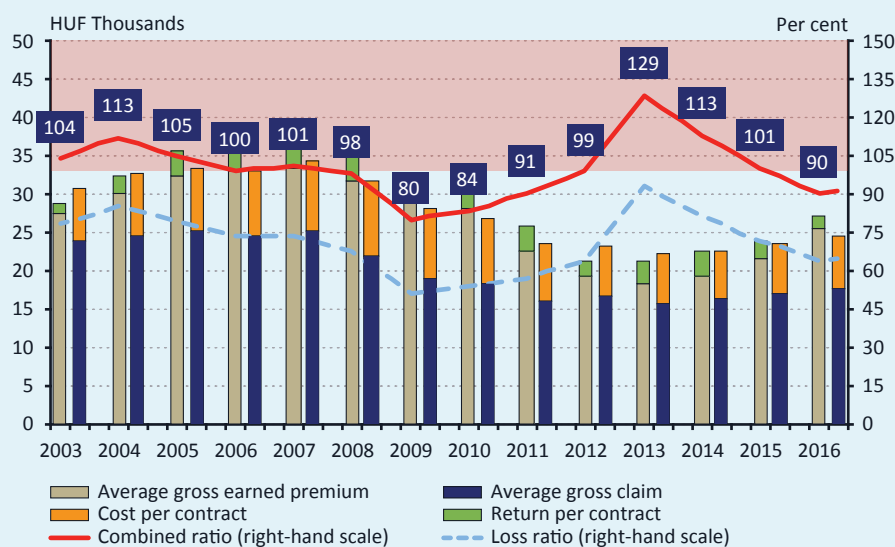
$$\beta = (1+d) \cdot \sqrt[t]{\frac{PEN_t^B}{PEN_t^A}} - (1+d)$$

The Hungarian insurance sector's average additional growth requirement with given target penetration levels and horizons:

Year	Rate of penetration							
	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%
1	-1.6%	19.3%	40.2%	61.1%	81.9%	102.8%	123.7%	144.6%
2	-0.8%	9.2%	18.5%	27.1%	35.1%	42.8%	50.0%	57.0%
3	-0.5%	6.1%	12.0%	17.4%	22.3%	26.9%	31.2%	35.2%
4	-0.4%	4.5%	8.9%	12.8%	16.3%	19.6%	22.6%	25.4%
5	-0.3%	3.6%	7.0%	10.1%	12.9%	15.4%	17.7%	19.9%
6	-0.3%	3.0%	5.8%	8.3%	10.6%	12.7%	14.6%	16.3%
7	-0.2%	2.6%	5.0%	7.1%	9.0%	10.8%	12.4%	13.9%
8	-0.2%	2.2%	4.3%	6.2%	7.9%	9.4%	10.8%	12.0%
9	-0.2%	2.0%	3.9%	5.5%	7.0%	8.3%	9.5%	10.6%
10	-0.2%	1.8%	3.5%	4.9%	6.2%	7.4%	8.5%	9.5%
11	-0.1%	1.6%	3.1%	4.5%	5.7%	6.7%	7.7%	8.6%
12	-0.1%	1.5%	2.9%	4.1%	5.2%	6.2%	7.1%	7.9%
13	-0.1%	1.4%	2.7%	3.8%	4.8%	5.7%	6.5%	7.3%
14	-0.1%	1.3%	2.5%	3.5%	4.4%	5.3%	6.0%	6.7%
15	-0.1%	1.2%	2.3%	3.3%	4.1%	4.9%	5.6%	6.3%
16	-0.1%	1.1%	2.2%	3.1%	3.9%	4.6%	5.2%	5.9%
17	-0.1%	1.0%	2.0%	2.9%	3.6%	4.3%	4.9%	5.5%
18	-0.1%	1.0%	1.9%	2.7%	3.4%	4.1%	4.7%	5.2%
19	-0.1%	0.9%	1.8%	2.6%	3.2%	3.9%	4.4%	4.9%
20	-0.1%	0.9%	1.7%	2.4%	3.1%	3.7%	4.2%	4.7%
21	-0.1%	0.8%	1.6%	2.3%	2.9%	3.5%	4.0%	4.4%
22	-0.1%	0.8%	1.6%	2.2%	2.8%	3.3%	3.8%	4.2%
23	-0.1%	0.8%	1.5%	2.1%	2.7%	3.2%	3.6%	4.0%
24	-0.1%	0.7%	1.4%	2.0%	2.6%	3.0%	3.5%	3.9%
25	-0.1%	0.7%	1.4%	1.9%	2.5%	2.9%	3.3%	3.7%
26	-0.1%	0.7%	1.3%	1.9%	2.4%	2.8%	3.2%	3.6%
27	-0.1%	0.7%	1.3%	1.8%	2.3%	2.7%	3.1%	3.4%
28	-0.1%	0.6%	1.2%	1.7%	2.2%	2.6%	3.0%	3.3%
29	-0.1%	0.6%	1.2%	1.7%	2.1%	2.5%	2.9%	3.2%
30	-0.1%	0.6%	1.1%	1.6%	2.0%	2.4%	2.8%	3.1%

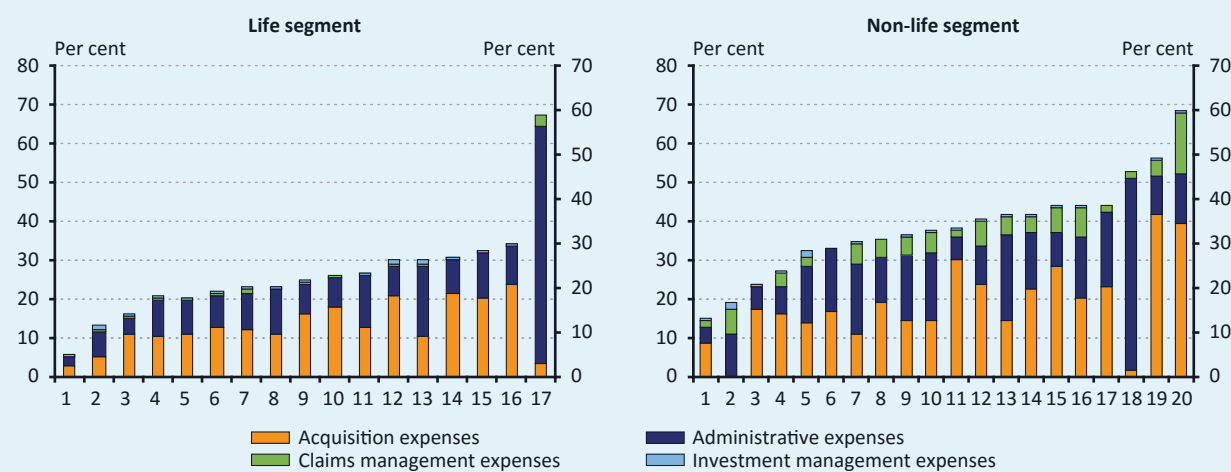
Note: The initial penetration in the calculation was derived from the penetration level of 2015 in Hungary.

ANNEX F – DEVELOPMENT OF THE COMBINED RATIO OF MOTOR THIRD PARTY LIABILITY INSURANCE IN HUNGARY



Source: MNB.

ANNEX G – COSTS OF LIFE AND NON-LIFE INSURERS IN PROPORTION OF THEIR GROSS WRITTEN PREMIUM (2016)



Source: MNB.

10-YEAR FUTURE OF INSURANCE SECTOR IN 7 POINT

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