The Hungarian Insurance Market in an International Comparison

Executive Summary

The following analysis attempts to review the domestic insurance market in an international comparison. In this analysis, we seek to explore the differences and similarities between the Hungarian and the foreign insurance markets, and to give an explanation to the variations found, if possible. The data needed for the analysis have mostly been gathered from public databases; their consistency has been checked in a part of the cases; however, minor distortions may occur due to certain factors (e.g.: differences in definition, different currencies).

The following findings resulted from the review:

- The average insurance penetration of the Central and Eastern European (CEE-10) countries (premium revenue/GDP) falls short of the 8.9% calculated for the overall European insurance market; in 2009, it reached approximately 3.3%. The Hungarian market represents a similar value, which is around the average within the CEE region (2009: 3.2%), but in the economies that are at a higher or similar level of development within the region (Slovenia, the Czech Republic, Poland), the penetration rate is higher overall. At the same time, it would be misleading to stop here, i.e. simply to put together the insurance penetration rates of the countries standing at various levels of development, because an analysis of the data obviously reveals a very close correlation between the degree of being insured and the GDP.

- This correlation is shown by means of a regressive statistical model, where we were searching for a connection between the economic development of a country measured in GDP – based on data about the EU member states – and insurance penetration, seeking an answer to the question whether a given country is to be considered as underinsured or overinsured. In this context, underinsurance is meant when a country lies below the trend line representing the correlation between the GDP and penetration, whereas adequate level of insurance is meant when it lies on the trend line or very close to that. This analysis yielded a result whereby in terms of the CEE countries Hungary, the Czech Republic and Slovakia are insured adequately in comparison to their level of economic development, Austria is underinsured, and Slovenia and Poland are overinsured.

- The product mix of the domestic life insurance industry – as a result of the dominant weight of UL products – significantly differs from that of the EU average; in addition, in a way that the CEE region’s average shows a pattern that is very similar to the European average in this respect, and clearly differs from the Hungarian one. For the non-life industry, the group of CEE-10 is characterised by a product mix significantly different from that of the developed markets, mainly due to the underdevelopment of the health insurance (accident and sickness insurance) segment. As a result, the weight of the property insurance branch and the retail motor and home insurance within that prevails.
• For the CEE-10 countries, the ratio of policies in the insurance portfolios (without UL covers) is considerably higher in comparison to the member states with a more developed capital markets (2009: 70%). The ratio of the latter instruments within that is the highest in the EU in case of the domestic insurance companies (2009: 82%), and the portfolios are dominated by HUF denominated Hungarian government securities. Diversification of the portfolios of domestic insurance companies is particularly low, even in comparison with the CEE countries.

• The profitability of domestic insurance companies changed only slightly in 2008 and 2009, and in both years, it exceeded the average of the CEE-10 countries. In the light of the latter, it is a significant change that in 2010 the profitability of Hungarian insurance companies was practically ruined (ROE: -0.1%), which is partly due to the newly imposed extra tax burden, partly to the unfavourable claim trends in the non-life industry, and partly to other factors.

• For CEE-10 member states, the equity ratios of insurance companies are traditionally above the European average, which is mostly related to the significant internal capital productivity of insurance companies, as a result of the high productivity of the foregoing markets and the moderate risk dynamics of the insurance companies. The latter are also true for the Hungarian insurance market, in which case, however, the average equity ratio falls considerably short of both the European average and that of the CEE-10 member states.

I. Development level of the domestic insurance market

The level of development of individual countries’ insurance markets can be compared through various indicators. Insurance penetration defined as the ratio of gross premium revenue and the GDP (insurance penetration rate: premium revenue / GDP) is one of the most frequently used indicators, which reached 8.9% in 2009 in terms of the entire European insurance market (2008: 8.5%). The somewhat surprising increase in the indicator seen in 2009 is explained by a drop in the consolidated GDP of the EU members states (2009: -5.8%) exceeding the decrease in insurance premium revenues (2009: -1.4%)\(^1\), i.e. the stability of the insurance business was higher in the first full year of the crisis than that of the total revenues generated in the economy. The average value calculated for Central and Eastern European (CEE-10) countries, in the context of the less developed markets of the foregoing countries falls short of that, and moved around 3.3% in 2009. The Hungarian market represents a similar value, which is around the average within the CEE region (2008: 3.3%; 2009: 3.2%), but in the economies that are at a higher or similar level of development within the region (Slovenia, the Czech Republic, Poland), the penetration rate is higher overall. The Hungarian penetration rate, then, falls between that of the other Visegrád countries and that of the Baltic states, Bulgaria and Romania.

\(^1\) According to dollar-based statistics
Even this quick comparison reveals that the penetration rates of countries at a similar level of development are similar, or, to put it otherwise, penetration depends on the economic development, i.e. the amount of the GDP. For this reason, for determining whether Hungary is adequately insured, or underinsured, or overinsured, we attempt to use a regression model to quantify the correlation between insurance penetration and the GDP, which yields a trend line. Individual countries can be qualified according to their respective positions in comparison to the trend line.

The shape of the trend line is not clear, however. A linear shape can be excluded, because it would mean that a country with a sufficiently high GDP would spend all of its income on insurance, which is absurd. Consequently, the appropriate line is to be searched among curves that show a decreasing growth rate of penetration (beyond a point) as the GDP grows. In the continuation, two such potential trends will be examined, and the information of interest to us will be distilled.

The examination has been carried out for the member states of the European Union excluding Luxembourg (because the data of that country are overly outstanding), as well as Estonia and Latvia (no data are available).

The two regressions examined are:

**Logistic regression**: a property of this regression is that with low values of the explanatory variable, the rise of the outcome variable is low, then, beyond a point, higher, and then lower again. In our case, the use of this regression is explained by the assumption that a very poor country hardly spends money on insurance, and a very wealthy country will not increase the ratio of insurance within the GDP beyond a point.

**Quadratic regression**: for this regression, with the growth of the explanatory variable, the outcome variable either increases or decreases. Similarly to the use of the logistic regression, the use of this regression can be justified by the assumption that for a very wealthy country, the ratio of insurance within the GDP will be increased to an ever smaller extent. This regression – as opposed to the previous one – contains fast growth for poorer countries.

The following two figures illustrate the logistic and the quadratic regressions:

![Logistic regression graph](image1)

![Quadratic regression graph](image2)

If a country lies above the trend line defined by the given regression, it is overinsured, if below, it is underinsured. In this investigation, the indicator $R^2$ was used to measure the efficiency of each regression, which may be between 0 and 1. The closer this indicator is to 1, the more the explanatory variable explains the outcome variable.

Building this model, the total revenue of the insurance market (life + non-life) was examined in proportion to the GDP. The following two figures show the results yielded by a logistic and a quadratic regression for the member states of the European Union.
In both figures, Hungary is on the trend line, it is neither underinsured, nor overinsured. The $R^2$ values concerning the adequacy of fitting of each regression: 0.606 for quadratic and 0.518 for logistic. Both regressions had a medium or slightly stronger explanatory power. Accordingly, the diagrams reveal that the insurance markets of e.g. Hungary, the Czech Republic and Slovakia are adequately insured, while those of Slovenia and Poland are overinsured.

II. The market and product structures in an international comparison

a) Life

In terms of the product structure in the life insurance industry, a significant difference is observable between the EU average and Hungary, and, what is more, the average of the CEE region in this respect has a pattern that is very similar to that of the European Union and strikingly different from that of Hungary. Both in the EU and in the CEE region, the weight of traditional life insurances, i.e. the life insurance contracts that are not linked to investment units, and are predominantly insurance products instead of investment products is 60% on average. The ratio of unit-linked insurance contracts is around 30-35% in both groups. In the domestic life insurance market, the situation is almost precisely the opposite, as the weight of unit-linked and predominantly investment products exceeds 60%, and this ratio kept growing in the past years. Accordingly, the actual level of insurance of the Hungarian population in the life industry is rather low, even in comparison with the CEE region. From a domestic point of view, this striking Hungarian peculiarity is mostly explained by the fact that the transparency of traditional life insurance contracts is rather low, whereas in case of unit-linked contracts, it is considerably higher, and competitiveness of the latter products was also boosted by their exemption from interest tax granted on long-term investment structures. What we cannot assess, however, is the representation of the foregoing criteria in other insurance markets in Europe.
It seems that the weight of pension insurances that hardly exist in Hungary is not considerable anywhere in Europe, and can even be termed as marginal. A reason for that may be the high risk and price of a life annuity service, which are partly caused by a continuous rise in the life expectancies. This and the relatively lucrative European social security pension systems may be the reason why the average European citizen considers the life annuity component of their financial coverage for old age to be settled on account of their coverage by social security, and they accumulate additional covers mostly in employer pension funds and other forms of savings, increasingly often in the form of savings in a DC scheme. The picture drawn from the above table may be deceiving because the products classified as other than pension insurance may include a number of products aimed at creating financial cover for old age. Such a group may be for example life insurance upon death combined with a fixed banking annuity, which may be classified as traditional or unit-linked life insurances.

Considering the events of the recent years, the impact of the economic crisis was felt earlier in the life insurance industry. In this circle, gross premium revenues fell by 11% in 2008 in the overall European market, which was followed by a moderate growth (1%) in 2009; however, a significant dispersion is observable in terms of the various countries. The recession mostly affected the life insurance products linked to various investments, which can be explained by adverse processes of the capital market suffered by investments, but in case of individual countries, were also influenced by other factors. In terms of products linked to investment in the United Kingdom, which is the most important European market, withdrawal of the tax allowances related to products caused a nearly 12% decline in premium revenues. In the countries where growing premium revenues were registered (Italy, France, Germany), the expansion can be typically explained by an increased demand for guaranteed products and short-term liquid investment products (accordingly, a competition to money market products).

In the CEE countries, life insurance premium revenues still rose by 29% in 2008, and a considerable decline was observable only in the Baltic states (-31%) and in the Hungarian market (-10%). The quick paced expansion was predominantly linked to the Polish market where the examined life premium revenues grew by nearly 54%. In 2009, the premium revenues decreased everywhere except for the Czech market, by 15% on average. In terms of structure, investment (mostly unit-linked) product types were observed to gain ground against traditional life insurances in the pre-crisis CEE-10 countries. This process was halted by the economic crisis, and the recession of premium revenues was often the most significant for unit-linked products, simultaneously with a growing ratio of traditional insurances that contained a guarantee element. However, the latter ones are often short-term liquid investment products wrapped in insurance. Actually, it is not the role of the insurance components that grew in the insurers’ product mix but the preference of customers buying investment products shifted towards shorter-term products that offer more security.

b) Non-life
In the European trend of non-life premium revenues, the impact of the economic crisis was felt later, typically through a general decline in demand; consequently, a significant decrease in the premium revenues was seen in 2009 for the first time (-6%) – with a slight delay –, while 2008 still saw a moderate expansion (1.1%). The CEE-10 countries performed better, achieving an 11% and a 0.9% growth in 2008 and 2009, respectively, with the changes resulting from the price changes in the premium revenues filtered. The market dynamics in the member states showed a significant dispersion in 2009: in the Baltic states, for instance, a considerable plummet was observed (Lithuania: -35%, Lat-
via: -38%). The domestic market underperformed in both years (2008: +2%; 2009: -4%) in comparison with the regional average. It may considerably stem from the fact that the crisis affected the Hungarian economy more than the regional average.

Examination of the distribution of the premium revenues among business lines, it can be established that the greatest weight in the European market is that of the accident and health insurance branch (2009: 32%), which is approximately level with the motor insurance branches (mandatory and others collectively) in terms of premium revenues, followed by insurance against fire, natural disasters and other property insurance as the third most significant branch (2009: 16%). The CCE-10 group is characterised by a product mix considerably different from the foregoing, mostly due to the underdevelopment of the health insurance segment (apart from a couple of countries: Slovenia, Lithuania). Consequently, the property insurance branch dominates the non-life market in the latter case (2009: 78%) with the greatest weight of retail motor and home insurances within that. The latter structural feature also characterizes domestic market where another major feature is the high ratio of home insurances (21%).

The considerably greater weight of accident and health insurances compared to the CEE region is partly related to a different financing and pricing of health services, as the Western European systems rely much more on the market and self-provision in comparison with their counterparts in Central and Eastern Europe. In addition, it is an important circumstance that it is increasingly worth and necessary to take out an insurance policy to cover against loss of typically higher incomes in Western Europe.

### III. Investments

The total investments of all insurance companies in the EU member states amounted to EUR 6 506 billion at the end of 2009, shrinking 1% during the year (2008: -7.8%). The investments of insurance companies active in the CEE-10 member states in the same period represented 1% of the total investments in Europe.

The greater portion of the European insurance sector’s investments at their own risk (cover for reserves and capital, excluding UL) is typically represented by bond type instruments, accompanied by a considerable proportion of shares and other securities representing ownership. The ratio of bond type instruments within the portfolio rose significantly during 2008 and 2009 (2007: 50%; 2009: 59%), while in the same period, the ratio of securities representing ownership considerably decreased (2007: 34% 2009: 26%). This is partly a result of changing market prices, as the share prices dropped in the crisis period, whereas government bonds were increasingly subscribed for parallel to decreasing yields, and this effect was seen in the national insurance systems representing the market appraisal of instruments. On the other hand, investors also adapted to the changing market.

For the CEE-10 countries, the policy ratios in insurance companies’ portfolios are much higher in comparison to the member states with more developed capital markets (2009: 70%). Within that, the
investment practice of Hungarian insurance companies has two characteristic features when compared to the European insurance market. On the one hand, for investments used to cover insurance technical reserves (excluding UL reserves), the policy ratio of domestic insurers is the highest (2009: 82%); on the other hand, HUF denominated domestic government securities tend to dominate the latter. The diversification of domestic insurers’ portfolios is particularly low even in comparison with the CEE countries. The latter phenomenon is explained by the particular features of the domestic bonds market, as the yield of domestic HUF denominated bonds is fairly lucrative – with low market and credit risks of these bonds for HUF-based investors – as a result of a higher country risk premium in contrast with the surrounding EU member states.

Considering the overall European market, the portfolios of investment unit linked insurances in 2009 accounted for nearly 26% of the insurers’ investments (2008: 24%), while in case of the CEE-10 countries, this ratio is roughly similar but slightly lower (2008: 18%, 2009: 23%). As further proof of the particularly high popularity of unit-linked products in Hungary, the proportion of this group is also unusually high (2009: 39%), the causes of which have been explained above when addressing premium revenues.

The instrument mix of investments is typically more heterogeneous, and the related market risks are more significant compared to portfolios of own risk. Moreover, they are recorded at market value in all cases, consequently, the portfolio is considerably more sensitive to the capital market movements. It is predominantly a result of this that the value of these instruments decreased in 2008 by 22% on average of the overall EU, partly due to revaluation, partly to repurchases, and then in 2009, it increased by nearly 9% – parallel to the rising prices on the capital market.

IV. Profitability

The profitability of insurance companies in the EU member states was adversely influenced by the deepening economic crisis. The business result – stemming from the considerable setback on the capital markets in 2008 – turned negative, which was followed by consolidation of insurance companies’ profitability in 2009. In 2008, the average return on equity (ROE) equalled -4.6% for the entire EU, which improved in the next year to reach 11.4%.

On interpreting the above phenomenon, it needs to be taken into account that a large group of European insurers appraise their assets based on market prices. Accordingly, decreased profitability in the life industry was mostly caused by losses incurred on invested assets, accompanied by a peak

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2 Based on data gathered by CEIOPS-FSC

THE HUNGARIAN INSURANCE MARKET IN AN INTERNATIONAL COMPARISON
in repurchases associated with life insurances. In the non-life industry, the key factors were strong competition and slack demand resulting in decreasing premium revenues and, partly due to that, deteriorating technical results. In certain member states, decreasing interest rates also contributed to declining profitability, which led to falling profits or to losses in relation with the yields promised on various savings and pension insurances.

The CEE-10 countries are traditionally characterised by profitability levels above those of the developed markets, and the impact of the economic crisis on profitability was minor in these markets. As a result, the average ROE for the region in both analysed years exceeded the European average, and on average, reached approximately 16.7% in 2009 (2008: 12.5%). The individual figures of the analysed countries, however, showed significant differences in the analysed period, which – along with other, country specific factors – stem, to a considerable degree, from the differences in the requirements applicable to appraising the invested assets and the practices followed by market actors.

The profitability of domestic insurers changed only slightly in the period 2008-2009, and it exceeded the average of the CEE-10 countries in both years. It must be noted, however, that at the level of individual institutions – similarly to other countries of the region – the dispersion is considerable, as the overwhelming majority of the profit is generated by few major market actors. Moreover, high profitability was supported by factors with significant one-off effects both in 2008 and in 2009. Finally, the relative stability is in connection with a domestic regulation concerning government securities representing a dominant weight in the domestic insurers’ portfolios and retained until maturity – i.e. disregarding continuous market based appraisal –, as a result of which the effect of temporary negative processes in the domestic government securities market was represented in a rather cushioned form in insurers’ profits.

It is important to note that the optimistic tone of findings about the profitability of Hungarian insurance companies may be remarkably modified when the profit figures of 2010, not addressed herein, are considered. This is because in 2010 the profitability of the Hungarian insurance companies practically crashed (ROE: -1.1%), which was a combined effect of the newly imposed extra tax burden, the unfavourable claims statistics in the non-life industry and other factors. All we can say about the results of 2010 is that it was to a major part a result of individual factors, and to a minor part stemmed from structural factors.

V. Solvency positions

The solvency positions of European insurance companies considerably deteriorated in the wake of the economic crisis. The solvency ratio of insurance companies fell by nearly 100 percentage points

3 Based on data gathered by CEIOPS-FSC

THE HUNGARIAN INSURANCE MARKET IN AN INTERNATIONAL COMPARISON
in 2008 – as a result of the losses incurred during the year – (2007: 347%), then, in 2009, it considerably improved as a result of positive effects of investments revaluation on the profit and capital injections. In this way, the average solvency ratio increased to 285% again by the end of 2009.

For the CEE-10 member states, the solvency ratio of insurance companies has been traditionally higher than the European average, which is mostly related to the significant capacity of insurance companies to generate internal capital surplus, owing to the high profitability of the analysed markets and the moderate risk dynamics of the insurers. As a result of the crisis, the latter markets also saw decreasing solvency ratios of insurance companies; however, the rate of recession did not reach the degree of capital losses seen in the developed markets. In the CEE region, profitability decreased only to a minor extent, i.e. the decrease in the guarantee capital and the equity ratio were in part a consequence of profits withdrawn by the parent companies. A similar phenomenon has been seen in the Hungarian insurance market, too, where the average equity ratio falls materially behind the average of both the European and the CEE-10 member states. This alone would give rise to the question whether the solvency ratio of the Hungarian insurance companies will be sufficient to comply after Solvency 2 is adopted, with respect not so much to the expected average equity levels in the sector after the adoption but to the underlying differences among the institutions of institutions and the presumably growing volatility of the equity ratio.

References

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