Development of Commercial Insurance Business in Slovakia and Hungary in the Years 1997 – 2006[1]

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Abstract

Insurance industry belongs to the most important branches of economy. It performs a couple of very important functions from the macroeconomic point of view: accumulation, redistribution, stimulation and control function. Insurance companies are big players on the financial market so insurance system deserves adequate attention. This paper deals with the development and comparison of insurance market in Slovakia and Hungary. Insurance becomes more and more significant and its development correspondents tight with national economy. We focused our attention on the selected most important indicators as follow: gross written premium, indemnity costs, technical reserves, investment activity and concentration in an insurance industry.

Keywords: *premium written, penetration, technical reserves, investment activity, Herfindahl-Hirschman Index*

JEL Classification: G22

Introduction

The insurance business covers a huge set of insurance companies and institutions that have state or private ownership. It is a specific branch of economy enabling safe performance of economic system. It minimizes resp. eliminates the risks of performing business by various business entities that result from contingent claims fulfilling primary role of insurance business. To secure surety of resources from revenues and value of property seems to be the most important factor of both personal needs and basic needs of business entities and that is why the all businesses should properly evaluate the recognition, identification, evaluation, and selection of accurate risk cover.

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The importance of insurance also reflects its influence upon economy. Insurance activities help to maintain entrepreneurial entities and obtained standard of living stable. It also stimulates increasing awareness of businesses and individuals to protect themselves and to prevent consequential losses. Insurance contributes to raising economic growth by investing cumulated technical reserves on financial market.

1. Insurance Business as a Component of Financial Market

There can be found a lot of definitions of financial market in economic literature. Some authors deal with definition concentrating on supply and demand for such financial tools as cash, capital, securities, rights of priority, warrants, derivatives, foreign currency, precious metals, insurance cover, etc. that can be traded on financial market. Financial intermediaries trading on financial market distinguished by Chovancová (2002) are the following ones:

- Deposit institutions (commercial banks, saving institutions, credit co-operatives, various saving and credit associations, funds of financial market)
- Other financial intermediaries (financial institutions, government loan agencies)
- Contractual institutions (insurance companies, pension funds)
- Investment institutions (investment associations, investment mortgage trusts, etc.).

Sufficient definition of financial market for our purposes can be found in "Veľká ekonomická encyklopédia" (Šíbl a kol., 2002, p. 725): "Financial market is a place where concentration of demand and supply of precious metals, capital, payment means, securities, foreign currencies, insurance protection, etc. is performed." It follows that insurance market is a part of financial market with growing importance proportionally with progress of free market economy and globalization. The results of this complex process are indisputable pros and cons (not mentioned here) that increase risk frequency, costs of removing damages and losses. Insurance business with its functions, tasks and possibilities to invest financial means from technical reserves (further on TR) on domestic or foreign financial markets influences whole economy and its balanced speed of growth. It is realised by investments and settlements of claims.

The conception of insurance and its functions is presented be many scientists such as Majtánová (2002), Daňhel (2005), Ducháčková (2003), Bland (1993), Holyoake and C. Weipers (1999) and G. E. Rejda (2005). Cummins and Weiss (1998) have defined three principles of insurance:

(1) Risk-pooling and risk-bearing that offers to the customers who face risk security from risk via pool. The insurers collect premiums from the insured and then redistributed the money to those insured that sustained damage.

(2) "Real" financial services relating to insured losses. The insurers offer various real services to their insured. The services like financial planning and consultancy are the most frequent in life insurance. The most popular services in non-life insurance are expert's reports aimed at identification of such risks that cause extraordinary losses, creation of programmes to cover such risks including recommendations on reductions and limits on insured sum. The insured have gained advantages from wide experience and specialized expert reports of the insurer that reduced costs connected with insurable risk by concluding the insurance policy.

(3) Intermediation. The insurers issue, insurance policies and invest money resources if they do not need them to settle claim payments. The yields from the life insurance are added directly to the account of the insured. In non-life insurance the insured receive reduction on insurance policy as compensation of contingency costs from funds deposited by the insurers. The money resources from the insured are primarily invested into tradable and also to non-tradable securities.

2. Selected Indicators of European and World Insurance Market

According to analysis of Swiss reinsurance company Swiss Re the gross written premiums reached more than USD 3.7 billion (bn) in the year 2006. It was higher by more than 8% from previous year. It is interesting to compare the development of American and European insurance markets. Non-life insurance (NLI) is dominant on the US market whereas life insurance (LI) covering risks of individuals is more frequent in Europe. The rate of life insurance/non-life insurance balanced in Hungary in 2006 due to growing life insurance and stagnation of non-life insurance. According to survey provided by Swiss Re the situation on Slovak insurance market was similar to American insurance market with prevailing non-life insurance to life insurance. It is worth to mention that written premiums in OECD countries created 92% of total world insurance in 2003. In the year 2006 this share moderately decreased to 89.7% but 30 OECD member countries had dominant position in total written premiums from more than 200 countries.

Table 1 displays selected indicators of global insurance market in selected countries or organisations in years 2003 – 2006. Global insurance reached level 7.52%. It means that world written premiums generate more than 7.5% of the world gross domestic product. We can say that higher share of written premiums on GDP is typical for high-developed countries, e.g. total insurance in the USA or Europe was higher tan global insurance, i.e. 8.80%, resp. 8.27% in 2006. In spite of this fact that average insurance share in Europe is higher than world average, significant differences in this indicator can be found on regional level.

Table 1

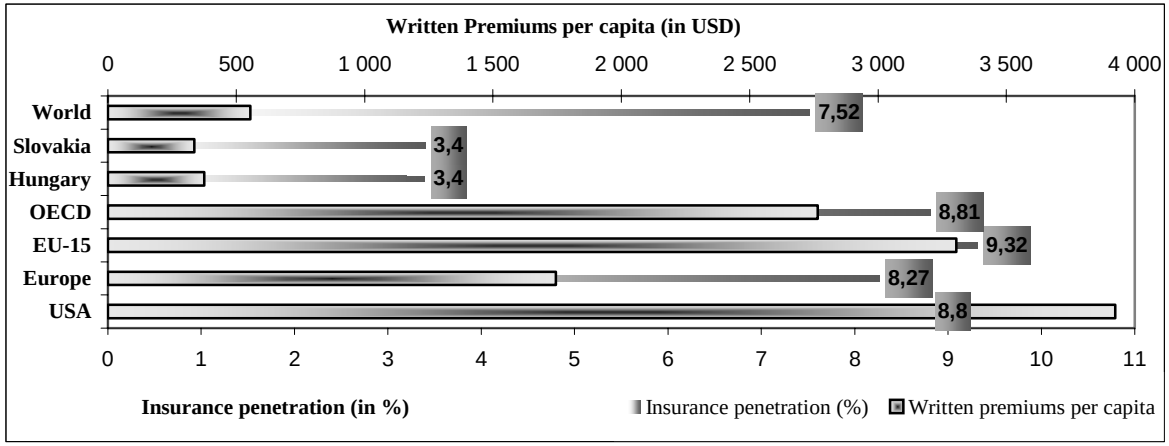
Development of Written Premiums in Selected Countries (in USD bn)

Country	2003			2004			2005			2006			$I_{2006/2003}$
	LI	NLI	Total	LI	NLI	Total	LI	NLI	Total	LI	NLI	Total	Total
USA	481.5	575.7	**1,057.2**	494.8	603.0	**1,097.8**	499.0	511.0	**1,010.0**	534.0	636.0	**1,170.0**	**110,7**
Europe	597.8	438.0	**1,035.8**	694.6	503.6	**1,198.2**	812.0	523.0	**1,335.0**	941.0	544.0	**1,485.0**	**143,4**
EU-15	555.7	389.8	**945.5**	650.0	444.6	**1,094.6**	764.0	456.0	**1,220.0**	888.0	469.0	**1,357.0**	**143,5**
OECD	1,537.5	1,183.4	**2,720.9**	1,681.2	1,286.4	**2,967.6**	1,810.0	1,313.0	**3,123.0**	1,976.0	1,362.0	**3,338.0**	**122,7**
Hungary	1.0	1.4	**2.4**	1.2	1.7	**2.9**	1.5	1.9	**3.4**	1.9	1.9	**3.8**	**158,3**
Slovakia	0.5	0.6	**1.1**	0.6	0.9	**1.5**	0.6	1.0	**1.6**	0.7	1.1	**1.8**	**163,6**
World	1,682.7	1,275.7	**2,958.4**	1,848.7	1,395.2	**3,243.9**	2,004.0	1,442.0	**3,446.0**	2,209.0	1,514.0	**3,723.0**	**125,8**

Source: World Insurance in 2006; own calculations.

Graph 1

Insurance and Written Premiums per capita in 2006 in Selected Countries



Source: World Insurance in 2006; own calculations.

Slovakia and Hungary can prove this fact with 3.4% of written premiums on GDP. When compared to Great Britain with more than 16% of insurance share we can speak about significant differences from regional viewpoint.

Written premiums per one inhabitant in the USA (that is insurance leader) were almost USD 4,000. The European average was higher than global average but did not reached the half level of the USA. The differences in Europe as a whole and individual European countries were marked in these indicators too. While European average was triple of the world average, Slovakia and Hungary reached only 61% and 68% of it respectively.

3. Development of Insurance Market in Slovakia

The Slovak insurance market has overwhelmed dynamic development and important reforms resulting in present modern and competitive system of commercial insurance companies since the establishment of the Slovak Republic in 1993. There have been operating 23 insurance companies with the head offices in Slovakia at present. The fact that 90% of capital comes from abroad proves that the Slovak insurance industry is attractive for foreign investors. The loss was reported by 3 insurance companies in 2006 but the profit of all insurance industry was SKK 4.5 bn. The insurance companies have revalued their assets by 3.05% this year (the year 2005, ROA 2.25%) and capital efficiency has grown by 3.11% to 15.87%.

The Slovak association of insurance companies (SAP) based in 1993 has been performing its activities in Slovakia. Its main task is to represent, protect and pursue common interests of insurance companies in relation to state administration and public. The SAP members represent more than 99% of insurance market (1 insurance company is not a member of SAP). Korauš (2004) underlines the fact that the effort to establish insurance industry in every economy must lead to mutual coordination of activities of all engaged subjects operating at insurance market.

3.1. Written Premiums and Insurance Share

As shown in Table 2 gross written premiums (in the following text written premiums are mentioned without inflation taking into account) had upward trend in the examined decade. Total written premiums increased by 314.80% in 2006 compared to 1997, in life insurance by 554.35% and in non-life insurance by 226.77%.

T a b l e 2

Written Premiums Development (in SKK bn) and Insurance Penetration (in %)

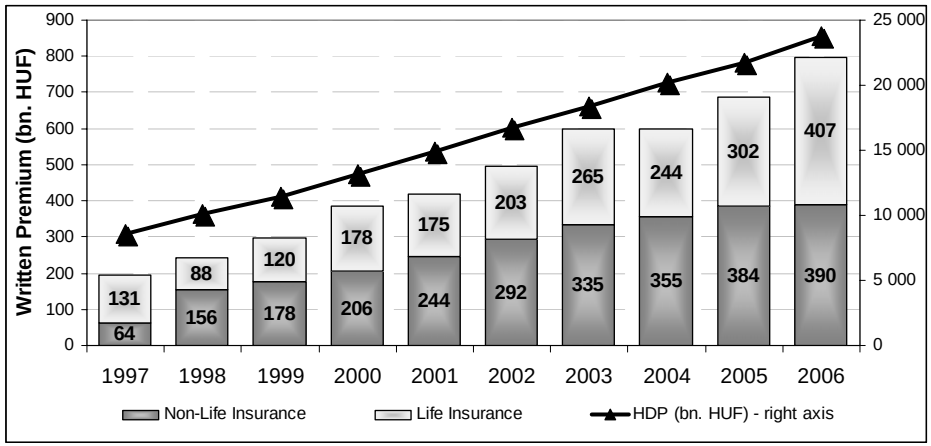
Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007*	+ARYG	$I_{2006/1997}$
Total	17.09	21.42	23.73	27.48	31.86	36.28	37.58	41.50	50.52	53.8	56.05	**21.52**	**314.8**
Life	4.60	6.30	7.86	11.21	13.87	15.67	15.75	17.93	22.03	25.5	26.20	**9.76**	**554.4**
Non-life	12.48	15.13	15.87	16.28	17.98	20.61	21.83	23.58	28.49	28.3	29.85	**13.76**	**226.8**
Insurance Penetration	1.93	2.32	2.57	2.93	3.29	3.57	3.53	3.71	4.23	4.15	4.60	x	x

Notes: * Linear trend forecast. + Average rate of year growth (%).

Source: SAP Annual Reports of 1997 – 2006; own calculations.

G r a p h 2

Development of SAP Written Premiums and GDP



Source: SAP Annual Reports of 1997 – 2006; own calculations.

Insurance share as a basic aggregated indicator of insurance development (expressed as a rate of written premiums to GDP) had upward trend except years 1999, 2005 and 2006 when it had slight decrease. The total insurance share was 4.15% in 2006. Given fall of 0.08% compared to year 2005 resulted from application of International Accounting Standards into insurance accounting. According to these accounting principles written premiums from investment units linked, bonuses, reductions of insurance and options that are components of insurance contracts are not counted within written premiums.

The relations ship between the written premium development and the growth of GDP in Slovakia is apparent from the Graph 2 the average rate of insurance in the EU countries (15) in the year 2006 was 9.32%, in Great Britain 16.5%, in Switzerland 11%. Greece had the lowest level of insurance rate (1.8%) from 15 EU countries (World Insurance in 2006).

3.2. Indemnity Costs

Indemnity is the compensation of losses to the insured in case of occurrence of insurance event. This recovery is in the form of money compensation but in some cases in the form of replace in kind by Ducháčková (2003). The development of indemnity costs is shown in Table 3.

T a b l e 3

Development of Indemnity Costs (in SKK bn)

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	$I_{2006/97}$
Total	9.62	11.37	13.20	13.39	14.39	15.20	15.75	17.31	17.14	21.20	**220.36**
Life Insurance	2.61	3.21	3.70	4.18	4.87	5.52	5.79	6.59	7.27	9.37	**359.16**
Non-life Insurance	7.01	8.16	9.50	9.21	9.52	9.68	9.96	10.72	10.15	11.83	**168.69**

Source: SAP Annual Reports of 1997 – 2006.

3.3. Technical Reserves

Since 1996 the creation, allocation and use of technical reserves was regulated by the Slovak Ministry of Finance Act No 136/1996 Coll. As amended Daňhel (2005), understands technical reserves primarily as the reserve system laid down by a legislative and economical framework in order to eliminate the time mismatch between premium income and delayed payment of insurance claims and to cover contingent swings in the damage process (fluctuation of a random variable around an average), plus a so-called insurance reserve in respect of life and pension insurance policies designed to recover future liabilities of an insurance company when policies mature.

The Slovak Act on Insurance No. 24/1991 Coll. determined insurance activities for contracting insurance policies, administration of insurance policies, settlement of claims, and reporting of insurance. Development of insurance practice including such activities as allocation and placement of technical reserves created conditions to alter the Slovak Government Act on Insurance No 186/2004 when the business activity of placing technical reserves became the part of determined business activities for the first time.

The use of technical reserve funds depends predominantly on loss ratio, distribution of life and non-life branches, and further on separate risk groups that are now compatible with EU Directive. The development of technical reserve volume as a whole and separately in both branches is demonstrated in Table 4.

T a b l e 4

Volume of Insurance Technical Reserves

Year	Total in SKK bn	Life Insurance		Non-life Insurance	
		SKK bn	Share (%)	SKK bn	Share (%)
1997	29.92	23.75	79.39	6.17	20.61
1998	33.05	25.61	77.48	7.44	22.52
1999	34.73	25.80	74.28	8.93	25.72
2000	39.02	30.32	77.69	8.70	22.31
2001	46.14	36.36	78.81	9.78	21.19
2002	51.38	41.39	80.56	9.99	19.44
2003	60.95	46.89	76.93	13.15	23.07
2004	72.97	55.90	76.61	17.07	23.40
2005	92.01	66.41	72.18	25.60	27.82
2006	107.24	75.50	70.40	31.74	29.60
Index$_{2006/1997}$	**358.42**	**317.89**	x	**514.42**	X

Source: SAP Annual Reports of 1997 – 2006; own calculations.

The volume of technical reserves of commercial insurance companies in all indicators had grown during this period. There were allocated SKK 75.5 bn in life insurance in 2006 and created 70.4% from total volume of technical reserves. In 2006 total technical reserves were 358.42 percentage points higher than in 1997 as life insurance and non-life insurance went up by 317.89 and 514.42 percentage points, respectively.

3.4. Investment Activity

As an integral part of their activities insurance companies make financial investments. Spare technical reserve funds (resulting from the delay between premium collection and the occurrence of insurance claims and indemnification) are placed at the financial market in compliance with applicable legislation.

Investment activity (IA) is an important indicator of the quality of commercial insurers' investments. It is defined as a ratio of investments to technical reserves

in percentage terms. Standard & Poor's recommends a minimum value of 100%, claiming that investments should reach at least equal technical reserves. The trend in investment activity is shown in Table 5.

T a b l e 5

Investment Activity Progress

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
IA in SKK bn	30.84	34.75	38.22	42.95	45.14	48.87	49.21	69.99	82.64*	92.48*
TR in SKK bn	30.13	33.21	34.86	39.46	46.09	51.38	60.95	72.97	76.92	85.39
IA/TR*100 (in %)	102.36	104.65	109.67	108.85	***97.95***	***95.11***	***80.74***	***95.12***	107.44	108.31

Note: Investment activity is stated for all insurance companies together. *Total permitted cover NBS.

Source: SAP Annual Reports of 1997 – 2006; own calculations.

The data reveals that the insurance market achieved the recommended indicator value in 1997 – 2000, 2005 and 2006. In 2001 – 2004 investment activity lagged behind the recommended rate, even recording a significant slump in 2003 by 28.78% against the base year 1997. This undesirable situation was partly the consequence of failure by several insurance companies to comply with the new forms applied, limits and rules for investment of TR funds in the financial market. In the years 2005 and 2006 positive yield from TR was obtained as a result of optimising several partial business activities if insurance companies.

An overview of investment portfolio held by SAP member insurance companies displays some negative features mainly in debt securities/fixed income securities ratio which despite of ongoing growth falls short of the European average of 38 – 40%. A sharp difference is also apparent in another asset group – deposits in credit institutions. Although their share declined from 58.03% in 1997 to 13.90% in 2006, the European average for interest-bearing deposits is 1.7% of total investments.

The unsound investment portfolios held by SAP members in 1997 – 2006 can be explained by several factors as reported by Kafková (2004), in particular:

- Shortcomings in former legislation on allocation of technical reserve, which restricted the number of different types of assets to 8 (at the present the number of different types of assets to 16).
- Remarkable changes on financial market mainly lower rate of yield from debt securities (gradual change of basic interest rate given by The National Bank of Slovakia that is currently 4.75%).
- Calculation of premiums with higher technical interest rate that appeared in shortcoming of technical reserves (considering some dumping prices the supervisor on insurance has restricted technical interest rate at today's 2.5%).
- Absence of complex management of assets and liabilities.
- Underdeveloped capital market in Slovakia.

• Short-term experience of investment managers in evaluation of technical reserves in the financial market.

• Inconsistent compliance with the principles of profitability, diversification, security and liquidity in placement of technical reserves in some investment operations.

Due to origin of their funds, investment activities of insurers are regulated and scrutinised by the supervisor – National Bank of Slovakia that promotes integrated supervision according to the Slovak National Council Act No. 747/2004 Coll. on Supervision upon Financial Market. The primary objective of this regulation and supervision is to protect consumer against default on obligations arising from insurance policies. To that end it stipulates the types of technical reserves as well as the forms and limits of their market placement.

3.5. Slovak Insurance Market Concentration

The most frequent method for gauging industry concentration in practice is Herfindahl-Hirschman Index (*HHI*) (Brezina, 1994):

$$HHI = \sum_{i=1}^{n} x_i^2$$

where n is the number of all firms in an industry and x_i is the share of *i-th* firm in total industry sales. The Herfindahl-Hirschman index is based on the assumption that competition grows at a rate equal to the square of market share. The maximum value of 10,000 occurs if the industry consists of a single firm. The resulting index is assigned to one of the three ranges.

1. High industry concentration if HHI is more than 1,800.
2. Medium industry concentration if HHI is between 1,000 and 1,800.
3. Low industry concentration if HHI is less than 1,000.

T a b l e 6

Herfindahl-Hirschman Index of Insurance Market

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
HHI	4,062	3,615	2,994	2,575	2,471	1,763	1,849	2,196	1,828	1,738

Source: SAP Annual Reports of 1997 – 2006; own calculations.

Table 6 shows that HHI went down in years 1997 – 2002, but in the period of 2003 – 2005 it increased and reached the high concentrated market as a result of merger of Slovenská poisťovňa, a. s. and insurance company Allianz, a. s. In 2006 insurance market concentration was in middle level and HHI reached level of 1,738 proving assumption that there is not a strong leader in the industry with

the share higher than 40%. The biggest market share 33.32% (measured by written premiums) belonged to Allianz – Slovenská poisťovňa, a. s., the second position of 25.36% had KOOPERATIVA poisťovňa, a. s., and the third position reached Česká poisťovňa – Slovensko, a. s. with 8.24% market share. The three smallest market shares belonged to: OTP Garancia poisťovňa, a. s. (0.13%), D. A. S. poisťovňa právnej ochrany, a. s. (0.12%) and OTP Garancia životná poisťovňa, a. s. (0.10).

4. Development of Hungarian Insurance Market

There were 27 insurance companies operating at Hungarian insurance market by the end of 2006 while at the same time 25 insurance companies were the members of Hungarian Association of Insurance Companies (MABISZ). The number of Hungarian insurance companies had increased by 7 since 1997. There were 26,000 employees working in insurance business by the end of year 2007. The volume of premiums per one employee in insurance was EUR 146,4 thousand, i.e. HUF 37,7 mil. using this exchange rate – HUF/EUR 257.23 (on 23 March 2008). The insurance companies concluded the year 2006 with the profit after taxation in amount of HUF 55,34 bn (approximately SKK 7,6 bn). Comparing the year 1998 net profit increased totally by almost HUF 42 bn. The Hungarian insurance companies revalued their assets by 3.2% in 2006 and capital efficiency was 11.2%.

The integral supervision on Hungarian insurance market is performed by Financial Supervision Office. Its competencies include supervision on insurance industry, banking, money and capital markets and funds.

4.1. Gross Written Premiums and Insurance Share

Development of the most important insurance indicators is given in Table 7. In 1997 life insurance premiums were higher than non-life premiums, but since 1998 to 2005 the ratio of non-life insurance/life insurance changed and non-life insurance was higher. In 2006 a strong acceleration of life insurance premiums and a slight growth of non-life insurance made the ratio different with higher life insurance premiums.

The highest insurance share of 3.35% was reached in 2006. Comparing this indicator with British 16% diametrical differences can be reported. The rate of insurance given in table 7 has merely increasing trend though it expressively remains behind the levels reached by the developed countries.

Table 7

Written Premiums Development (in HUF bn) and Insurance Share

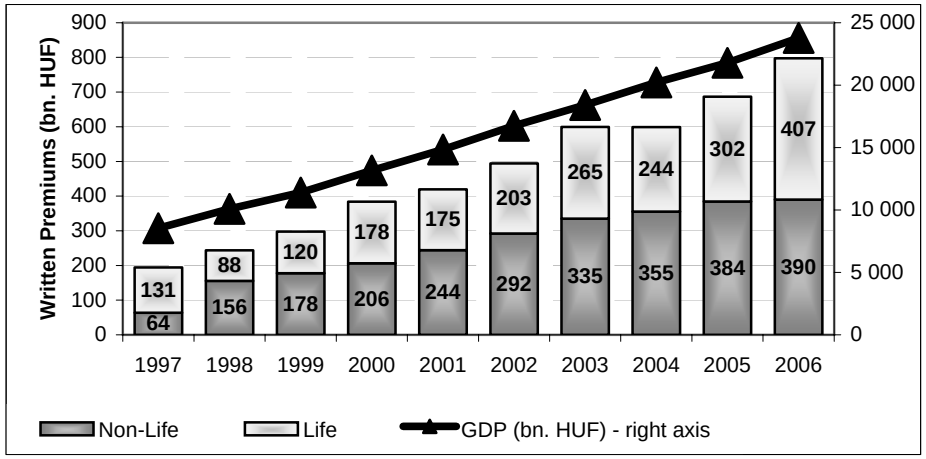
Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007*	ARYG+	$I_{2006/97}$
Total	194.65	243.91	297.77	384.09	419.47	494.60	599.44	599.04	686.52	797.18	829.95	17.26	409.5
Life	130.95	88.21	120.03	177.63	175.04	202.53	264.52	243.72	302.12	407.42	374.29	16.36	311.1
Non-life	63.70	155.70	177.74	206.46	244.43	292.07	334.92	355.32	384.4	389.76	455.66	27.00	611.9
Insurance Penetration	2.28	2.42	2.61	2.92	2.82	2.95	3.26	2.96	3.15	3.35	3.46	x	x

Notes: ***** Linear trend forecast. + Average rate of year growth (%).

Source: <http://www.mabisz.hu/english/index.html>; own calculations.

Graph 3

MABISZ Written Premiums Development and GDP



Source: Hungarian Financial Supervisory Authority (2007); <http://www.mabisz.hu/english/index.html>; own calculations.

The increasing trend is demonstrated on Graph 3. The written premium grew more than four times during last decade, i.e. by 410% (index 2006/1997). According to Standard & Poor's rating agency the speed of development should range within <–10; 30> annually. Hungarian insurance market fulfilled this criterion during whole examined period. The highest level of growth (29%) was marked in 2000 as a result of increased interest of inhabitants in life insurance that went up by merely 48%. The slowest growth speed was noted in 2004 when written premiums fell by 0.07%. It was due to decrease in life insurance by 8% balanced by slight growth of non-life insurance. In other case written premium decrease was more significant.

4.2. Indemnity Costs

The volume of indemnity costs is given in Table 8. Total indemnity costs continually increased and in 2006 they were higher almost by 321% than in 1997. Non-life insurance indemnity grew by 257.61%. The biggest increase was marked in life insurance in which insurance companies paid off 477.68% more indemnity in 2006 compared to 1997.

T a b l e 8
Hungarian Indemnity Development Indicator (HUF bn)

Indicator (in HUF bn)	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	$\mathbf{I_{2006/97}}$
Total	119.9	153.2	185.4	159.8	213.2	231.7	273.6	311.8	350.0	384.8	**320.9**
Life Insurance	34.5	54.4	74.4	39.6	66.2	70.0	91.4	117.4	136.7	164.8	**477.7**
Non-life Insurance	85.4	98.7	110.9	120.2	147.0	161.7	182.2	194.4	213.3	220.0	**257.6**

Source: <http://www.mabisz.hu/english/index.html>; own calculations.

4.3. Technical Reserves

T a b l e 9
MABISZ Technical Reserves

Year	**Technical Reserves**				
	Total	**Non-life**		**Life**	
	HUF bn	Share (%)	HUF bn	Share (%)	HUF bn
1997	244.70	44.60	109.13	55.40	135.57
1998	322.60	38.30	123.57	61.70	199.03
1999	418.30	35.31	147.69	64.69	270.61
2000	529.40	34.49	182.60	65.51	346.80
2001	605.60	26.47	160.30	73.53	445.30
2002	771.00	29.20	225.12	70.80	545.88
2003	891.80	34.21	305.09	65.79	586.71
2004	1,012.30	35.25	356.80	64.75	655.50
2005	1,177.40	37.29	439.08	62.71	738.32
2006*	1,352.84	39.54	534.50	60.46	817.34
$\mathbf{Index_{2006/1997}}$	**552.86**	**x**	**489.78**	**x**	**602.89**

Source: <http://www.mabisz.hu/english/index.html>; own calculations.

The technical reserve development of MABISZ member institutions was similar to written premium development and total insurance market progress. As it is demonstrated in Table 9 the share of non-life insurance technical reserves had falling trend former 44.60% to 39.54% of total technical reserves.

The opposite situation was marked in life insurance, which market share was growing and reached 60.46% of total technical reserves in 2006. The biggest market share of life insurance technical reserves created 3/4 of total technical reserves in 2001.

4.4. Investment Activity

Based on Table 10 data it can be said that recommended minimum value of investments on Hungarian insurance market remained during the whole decade. Maximum value was obtained in the year 2006 and its value was 142.2%. Concerning financial market tools the structure of technical reserves was the following: 77 – 81% of the dominant government bonds, the next 3 – 7% of bank deposits and bank securities, shares (5 – 8%), and other securities (local securities issued by towns and other institutions, loans to the insured, mortgage investments). The structure of investment portfolio demonstrates that insurance companies as institutional investors preferred more conservative tools of investment placement.

T a b l e 10

Development of Insurance Investment Activities

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
IA in HUF bn	300	414	490	626	760	906	1,042	1,188	1,421	1,898
TR in HUF bn	245	323	418	529	606	771	892	1,012	1,177	1,335
IA/TR*100 (in %)	**122.6**	**128.3**	**117.2**	**118.3**	**125.6**	**117.5**	**116.8**	**117.4**	**120.7**	**142.2**

Source: <http://www.mabisz.hu/english/index.html>; own calculations.

4.5. Slovak Insurance Market Concentration

Competitive environment on Hungarian Insurance market has improved as development of HHI in Table 11 displays. The competition among insurance companies is stronger, but there is not the strong leader with dominant market share. The number of insurance companies increased from 20 in 1997 to 27 in 2006. Allianz Co, Ltd. Gained approximately 25% of total market share. Generali – Providencia Co. Ltd had 15%, ING Co. Ltd. 14% and then the next 24 companies took 0.07 – 10% of total market share. The development of market share displays that smaller insurance firms decreased shares of the biggest insurers creating more competitive insurance environment.

Table 11

Herfindahl-Hirschman Index of Insurance Market

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
HHI	2,007	1,853	1,729	1,591	1,577	1,560	1,480	1,354	1,308	1,145

Source: <http://www.mabisz.hu/english/index.html>; own calculations.

Conclusion

Based on given analyses and comparison of selected indicators of commercial insurance systems of Slovakia and Hungary in the period of 1997 – 2006 we can make several partial conclusions.

The written premium as the basic aggregated indicator of insurance business which determines all indicators of commercial companies has raising tendency in both countries. The average rate of growth between years (further only the rate of growth) was 21.52% in total written premiums in Slovakia. The rate of growth in written premiums was 9.76% in life insurance and significantly higher non-life insurance – 13.76%. The rate of growth in written premiums is displayed in Table 12.

We are generally expecting further development in written premiums in life insurance, primarily as reaction of citizens to running reforms in education, healthcare systems and welfare system. Executed changes in these systems create condition for increasing demand of investment insurance product, school fees policy and dowry insurance policy.

Special attention will be devoted to pension insurance products due to forecasted demographic development and expected decrease of state guaranteed pensions in relation to average wages in national economy.

In Hungary the rate of growth in written premiums was total 17.26% in life insurance and 27% in non-life insurance. There has been prepared crucial transition in education, healthcare system and welfare system, and therefore analogical increasing demand for life insurance product with the impact on written premiums rate of growth is expected. Different factors support this assumption. The most important factors are activities of commercial insurance companies, association of insurance companies, reinsurance companies and permanent growing insurance awareness of current and future clients.

The insurance rate showing contribution of insurance industry to GDP was higher in Slovakia during examined period with the exception 1997 – 1999 when insurance rate in Hungary had merely gained higher level in Hungarian economy but these insurance rates in both countries despite their decreasing tendency did not reach the half of the EU-15 average value of insurance rate.

Table 12

The Rate of Growth in Written Premiums between Year in Slovakia and Hungary

The Rate of Year Growth (%)		1998	1999	2000	2001	2002	2003	2004	2005	2006	Average
Life Insurance	**Slovakia**	21.23	4.89	2.58	10.44	14.63	5.92	8.02	20.82	–0.67	9.76
	Hungary	–32.64	36.07	47.99	–1.46	15.70	30.61	–7.86	23.96	34.85	16.36
Non-life Insurance	**Slovakia**	25.34	10.78	15.80	16.05	13.77	3.58	10.43	21.73	6.49	13,78
	Hungary	144.43	14.16	16.16	18.39	19.49	14.67	6.09	8.18	1.39	27.00
Total	**Slovakia**	36.44	24.96	42.49	24.20	12.65	0.51	13.78	22.94	15.75	**21.52**
	Hungary	25.31	22.08	28.99	9.21	17.91	21.20	–0.07	14.60	16.12	**17.26**

Source: Own calculations.

Table 13

The Technical Reserves Rate of Growth (in %)

Country/Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	Average
Slovakia	10.46	5.08	12.35	18.25	11.36	16.85	21.54	15.31	27.169	**15.37**
Hungary	31.83	29.67	26.56	14.39	27.31	15.67	13.51	16.31	13.35	**20.96**

Source: Own calculations.

The amount of costs in whole insurance industry grew up by 220.36% in Slovakia, basically higher growth was in life insurance – 359.16% and lower in non-life insurance – 168.69%. There was the higher increase in costs in Hungary by 320.9%, i.e. in life insurance, 477.7% and in non-life insurance 257.6%.

The specific features of insurance trade are demonstrated by allocation of technical reserves in insurance companies. The process of allocation, placement and use of technical reserves has been regulated by legislation since 1996 when Decree No 136 Coll. (issued by the Ministry of Finance of the Slovak Republic) further adjusted by regulations became valid. In Hungary this process is regulated by Act Insurance Institutions and Insurance Practice No XCVIII/2000. The forms, kinds and limits for placement for technical reserves were regulated several times during examined period. Nowadays, all basic kinds of technical reserves in life and non-life insurance are allocated in compliance with Directions of EU in both examined countries. The differences in number of kinds result from more detailed classification and time advantage of technical reserves generation in Hungary that followed the suit in compliance with EU Directions since 1994. The technical reserves rate of growth is given in Table 13.

From given data in the Table 13 it is evident, that the technical reserves rate of growth in Hungary was higher by 5.59%.

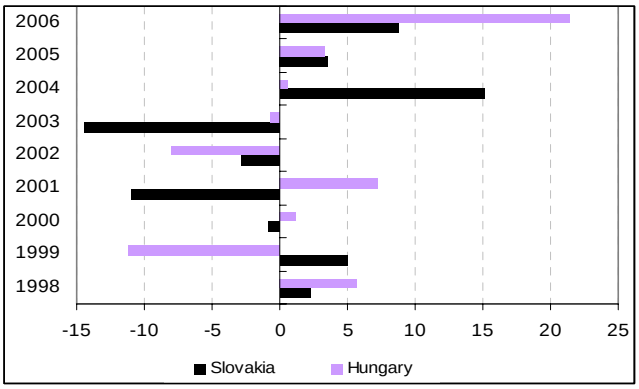
Rejda (2005) defines investment function as a function that is exceptionally important in all activities of commercial insurance companies. The stress is put on life insurance investments that have important economic and social influences on society as well as on yield from investments, which has positive impact on reduction on premiums. The measure of yield from invested technical reserves is important competitive factor. The higher profit retroactively influences the height of insurance premiums, volume of technical reserves, value of dividends, solvency, reinsuring processes and thus helps the insurance company to remain or to increase its financial power and share in insurance market.

The rate of revaluation of technical reserves was assessed by the investment activity indicator. The biggest revaluation in Slovakia was reached in 1999 when investment activity gained level of 109.67%. Hungarian insurance companies reached significantly higher revaluation of investments during all examined period. It gained the levels from 116.8% to 142.2% that it basically higher than in Slovakia. These rates of growth are displayed in Graph 4.

Positive development of commercial insurance business and its growing importance in national economies is proved by the concentration of insurance market. In 1997 the value of HHI in Hungary was 2,007 better than in Slovakia with value of 4,062. In 2006 HHI was 1,145 in Hungary and 1,738 in Slovakia. Given data shows there was diametrically different market concentration in the first examined year in Hungary than in Slovakia resulting in decrease of HHI level by

862 points in Hungary and by 2,324 points in Slovakia. This indicator proves positive development of insurance business in Slovakia which was reached not only by higher share of foreign capital but also by increase number of insurance companies performing their activities in Slovak insurance market and by wider offer of insurance products.

G r a p h 4
Annual Rate of Growth of Investment Activities (in %)



Source: Own calculations.

Based on comparison of new findings it can be stated that in principal both insurance markets advanced positively in basic indicators. There are not legislatively prescribed products now in both countries but the development of written premiums takes into accounts the GDP growth. Technical reserves are generated in compliance with the Directions of EU and all insurance companies have reinsured some commercial activities. The insurance market concentration is in the middle level of concentration scale and insurance companies are able to fulfil all their liabilities toward the insured. Both insurance markets are active in transition to Solvency II programme within which protection of the insured will be guides by risk-oriented indicators.

Positive advancement of selected indicators of commercial insurance system, forecasted development of macro-economic indicators and current changes in other business areas like education, health care, and public finance have created conditions for further progress of commercial insurance and prove its irreplaceable position in every developed country. Reached level of the commercial insurance as a result of the last 15 years proves that both markets have become integral components of stable and financially powerful European insurance market. Successful integration has resulted from the employment of foreign capital to know-how in individual national insurance companies adapted to specific features of different business environments.

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