

FINANCIAL STABILITY OF THE CZECH INSURANCE BUSINESS

Rybyšarová Marcela, Lelek Tomáš

Introduction

The Czech insurance market has brought itself to the same competitive level as those markets from developed countries even before the Czech Republic had entered the European Union. Commercial insurance companies have increased supply and have offered a range of new insurance products, which are comparable to those offered by western European insurance companies. [4]

In the last decade premiums written increased relatively high, about 8% in average per year of life insurance, as well as casualty insurance. It is perceptible from the latest data from the year 2007, that premiums written increased annually about 8,9%. [5] According to the analysis and comparison with foreign countries, this sector has the possibility of further growth, from a long-term point of view.

A very important question to consider is the financial situation of individual subjects acting on this market. That's why this paper aims to study the financial stability of this subject by means of selected financial analysis indicators, which are solvency and return on equity.

1. The Czech Insurance Market

The Czech insurance market can be divided according to several sort criterions. Criterions of size, which is assessed on premiums written by given insurance company and property or source of insurance company capital, belong to the most important criterions. Both aspects have an influence on financial stability assesment, therefore we are focusing first on resent situations in the insurance market according to these two criterions.

As od December 31, 2006 there were a total of 33 insurance companies active in the Czech insurance market. In this amount Česká kancelář pojistitelů (ČKP) is not included, which was established like assusor's organization, which members are all insurance companies on

the Czech insurance market. This organization moreover was given licence to provide vehicle insurance, although it can't provide other types of insurance.

In bar (Tab. 1) and the following graphs we can see the development of premiums written for individual insurance companies between the years 2006 and 2007. According to premiums written by Česká pojišťovna, a.s., Kooperativa pojišťovna, a.s., Vienna Insurance Group, Allianz pojišťovna, a.s., ČSOB pojišťovna, a.s., and ING životní pojišťovna are among the five biggest insurance companies.

In 2006 Česká pojišťovna with premiums written in the amount of 39,67 billion CZK (33% share on the market) was in first place. In second place was Kooperativa with 27,43 billion CZK (23% share on the market). The other insurance companies were far behind the leaders of the market. Third biggest Allianz pojišťovna had premiums written at height of 9,37 billion CZK in 2006. The group of other insurance companies that were included are companies with premiums written under 1 billion CZK e.g. Wüstenrot, D.A.S. pojišťovna právní ochrany, a.s. or Aviva životní pojišťovna, a.s.. Pojišťovna Slavia a.s. was the smallest insurance company on the Czech insurance market with premiums written only in the amount of 64 billion CZK.

In 2007 interest in providing insurance activities continued from other member states of EU or EHP and from third states. They wanted to provide these activities through their branch offices or on temporary permission to provide services. During 2007 three licences were given to foreign insurance companies, which could open branch offices in the Czech Republic. The total amount of insurance companies increased to 36.

In the year 2006 smaller insurance companies strenghtened their positions in the market at the expense of Česká pojišťovna a.s., which lost 3% of market share, Kooperativa lost 1% share in the year 2006 in comparison with the year 2005. But

Tab. 1: Premiums written in 2006 and 2007

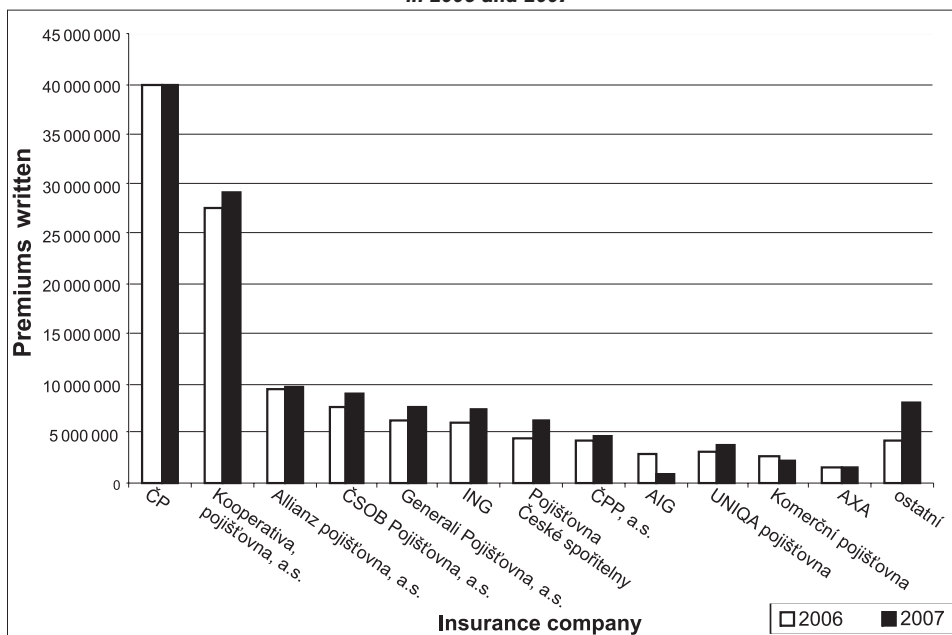
Insurance company	2006	2007
ČP	39 667 243	39 804 939
Kooperativa, pojišťovna a.s.	27 427 383	29 011 229
Allianz pojišťovna, a.s.	9 373 217	9 597 295
ČSOB Pojišťovna, a.s.	7 674 006	9 055 953
Generali Pojišťovna, a.s.	6 388 077	7 601 020
ING	5 938 648	7 266 522
Pojišťovna České spořitelny	4 427 575	6 453 589
ČPP, a.s.	4 345 158	4 751 560
AIG	2 934 552	968 794
UNIQA pojišťovna	3 147 661	3 783 261
Komerční pojišťovna	2 655 736	2 211 228
AXA	1 461 365	1 696 992
others	4 416 813	8 066 839
total	119 857 434	130 269 221

Source: Česká asociace pojišťoven (ČAP), own elaboration

bigger insurance companies came with new products during the year 2006 and their premiums written increased again. Kooperativa became

majority owner of Česká podnikatelská pojišťovna, which had the eighth place in the market. Moreover Kooperativa had already been owner of

Fig. 1: Market Share of individual insurance companies according to premiums written in 2006 and 2007



Source: ČAP, own elaboration

Pojišťovna České spořitelny (since year 2002 its nonlife insurance stock) and Komerční pojišťovna, which made Kooperativa the biggest insurance company in the Czech insurance market.

According to ownership more than 3/4 of total capital is controlled by foreign investors. Investors are mostly from the EU. For example Česká pojišťovna, a.s. belongs to Generali PPF Holding B.V., which is acting in 12 countries of Central and Eastern Europe. , Kooperativa pojišťovna, a.s. is owned of 86% by Wiener Städtische Versicherung AG Vienna Insurance Group. Czech capital is represented only in small insurance companies, e.g. Slávia, a.s., Hasičská vzájemná pojišťovna, a.s., etc.

2. Financial Stability of the Czech Insurance Companies

The financial stability topic is a current hot topic; this is due to the recent alignment of economic research and from discussions of economic policy makers in various forums. Czech National Bank (CNB) defines financial stability as a situation, when financial system fulfil its functions without big malfunctions; and ineligible consequences for recent and future economic development as system, and simultaneously it has high level of resistance against shocks. [5]

A break in financial stability can happen in consequences from processes in financial sector, which lead to emergence of vulnerable places, and it can also happen under the influence of a strong shocks. Source of these shocks can be among others exogenous factors such as domestic macroeconomic development, development of main borrower and creditor of financial institutions, economic policy, or changes in institutional environment. Possible interaction between vulnerable places and shocks can lead to the breakdown of systemaly important financial institutions and the malfunction of the financial system in providing financial mediation and a system of payment. In the extreme case the financial crisis can emerge with unfavourable impacts on the economy.

Financial stability and its analysis has become in the last few years one of the key task not only for CNB, but for many national and international institutions. The revealing of vulnerable places in financial sector, and its linkages in the develop-

ment of the financial markets and general economic development, can contribute to constraints of its risks and to better resistance of the financial system against shocks.

In terms of better quality and provisions of accuracy and truth of relevant data, on which financial analysis is based, insurance companies have according to accountancy law [13] liability to let their final accounts be control by an auditor. In principle this control is made by external renowned audit companies. After control, insurance companies can publish data and provide other processing.

In general financial stability is assessed by various indicators, e.g. indicators of insolvency, capital accuracy, solvency, real GDP growth, assets share to GDP, profitability indicators.

As indicators, which show the financial stability in the insurance sector, from the aboved listed we chose insurance companies solvency and return on equity indicators of contributed capital. These indicators are generally accepted as financial stability indicators of insurance companies, which are included into Solvency II study, which was done by the European Commission. The aim of this study is to set binding regulations among others for risks managing, financial accounts, creating of technical reserves, possibilities of financial investment, etc. [10]

2.1 Solvency of Insurance Companies

Solvency is generally identified with having the ability to fulfil owned debts properly and on time. In the insurance sector this term means „ability of assusor to fulfil insurance commitments, so-called ability to pay legitimaly insurance claims from realized insured accident“ [5]. Insolvency can occur if assets of a given insurance company don't have the sufficient level or there is not enough liquid in order to financially covered emerged insured accidents.

An insurance company has the duty to have its own sources, at least have the sufficient level to pay demands from contracted agreements during all time of its existence. Therefore solvency can be seen as the level of financial security of an insurance company, which is asesed by appointments of own capital. The lowest level of solvency in insurance companies is set by notice. [6]

Practically an insurance company's solvency is assessed on the base of its accounting. In this assessment, the so-called level of solvency plays a key role. It is counted as stock of the insurance company without all predictable commitments after the subtraction of intangible property; namely comprises [9]:

- a) paid basic capital or, in the case of interpenetrative insurance company, paid real inceptive capital plus accounts of members, which fulfil all these criterions,
- b) legitimate reserves and optionally reserves which are not connected to accepted commitments,
- c) transfer of profit or loss from other periods after subtraction of dividend, which have to be paid.

One third of the required level of solvency is made of guarantee funds. If the insurance activity is provided simultaneously for the branch of life and nonlife insurance, the Law of insurance sector sets rules for the exact assessment of this fund.

Assesment of the value of own sources (items of own sources), which establish guarantee funds and the style of solvency assesment is set by public note of the financial department. An insurance company has to report its solvency within 30 days of the day of elaborating reports about an audit or whenever ask by supervision.

In terms of this issue two basic indicators of solvency level exist. These are real solvency rate (RSR) and minimal solvency rate (MSR). Moreover calculation differs according to sector, rate of solvency life, and nonlife insurance.

During calculation of real solvency rate we come out from data acquired from account sheets of the insurance company and namely from:

- (1) paid basic capital,
- (1*) minimal amount of basic capital,
- (2) 50% nonpaid basic capital,
- (3) capital funds (capital in excess of industry, other capital funds and difference in valuation),
- (4) legitimate reserve fund,
- (5) other profitability funds,
- (6) profit or loss,
- (6a) undistributed profit from past years,
- (6b) undistributed loss from past years,
- (7) economic result of fiscal period after subtraction of technical account (7*),

- (7*) result of technical account (in the parting of life and nonlife insurance),
- (8) reserves for other risks of loss (legitimate reserves, reserve on exchange rate loss, other reserves),
- (9) intangible property, if it is part of basic capital (insurance company reports it by enumerating every item in appendix),
- (10) quiet reserves emerged from the underestimation of assets (the amount of emerged reserve comes from the difference of assets value in the market and value of these assets in accountancy, which is the value authorized by the supervisor),
- (11) other items authorised by supervisor.

Real solvency rate (RSR) for nonlife insurance is calculated [3] as:

$$RSR = (P1 / P) * S + (1*) + (7*)$$

Where P1 is brutto premium written (diversificated according to life and non life insurance).

P is total brutto premium written (counted for life and non life insurance).

$$S = (1) + (2) + (3) + (4) + (5) + (6a) + (7) + (8) + (10) + (11) - (1*) - (6b) - (9)$$

During real solvency calculation for life insurance it is necessary to add 50% to the result of future profits from life insurance and this amount comes from nonzillmering or partly zillmering of life insurance reserves.

(Zillmering - the „Zillmer method“ - is an actuarial method used by life insurers, by way of which accrued acquisition costs are spread over a period of time for amortization purposes. The method was devised by August Zillmer, a German actuary and director of several life insurance companies.)

During the calculation of minimal solvency rate the amount of insurance or average costs of insurance benefits is used, which is always taken from the highest one of these amounts.

During minimal solvency calculation it is possible to use computer support based on advanced methods of mathematics, probability, statistics, and operational research (which is offered by e.g. statistics program STATGRAPHICS Plus or simulation Method Monte Carlo). [14]

In this paper we use real solvency rate for assesment. Insurance companies in the Czech insurance market fulfil criterion of solvency (accor-

Tab. 2: Average rate of insurance company solvency in the Czech market according to branches between the years 2005 and 2006

Insurance companies solvency according to branch	2005	2006
life insurance (in %)	325	301
nonlife insurance (in %)	339	327

Source: Zpráva o finanční stabilitě České národní banky [online].
<http://www.cnb.cz/cs/financni_stabilita/>.

ding to audit results for the year 2006) very well, because their own sources were higher within the level of required solvency rate (100%). Aggregate disposable solvency for all insurance companies was according to recent legal rules three times higher than required solvency in the market of life insurance and 3,3 times in the market of nonlife insurance.

Compared to the year 2005, solvency of insurance companies decreased a little bit as is shown in Tab. 2. This decline is imperceptible and has no influence on total assessment of insurance companies.

In 2007 similar satisfying value are expected, but real figures are not known now. Data will be published after the assessment results of all insurance companies, after the audit of their final accounts.

Tab. 3: Return on total equity of insurance companies during the years 2005 and 2006

Insurance company	2005	2006
average	13,5	24,6
Allianz	3,86	5,56
ČP	4,05	7,2
ČPP	0,21	1,6
ČSOB Poj	-1,59	2,58
ING	2,71	2,9
KOOP	2,5	2,28
AIG	13,9	8,84
Komerční pojišťovna	-0,51	1,66
Pojišťovna České spořitelny	1,47	1,95
UNIQA pojišťovna	5,08	3,26
Generali pojišťovna	3,91	3,61
AXA	3,4	2,25

Source: own elaboration

2.2 Insurance Companies Return on Equity

Rentability indicators belong to basic financial analysis indicators, which quantify efficiency of the company's activities. In term of insurance companies return on equity profit must be adjusted, therefore it is a „harder indicator“ than that used for assesment by companies.

The most important rentability indicator is gross profit margin indicator (return of own equity), which is the ratio of profit to own capital (i.e. to total or shareholder's capital).

Firstly we look at total insurance companies capital assessment, and then at shareholder's capital rentability.

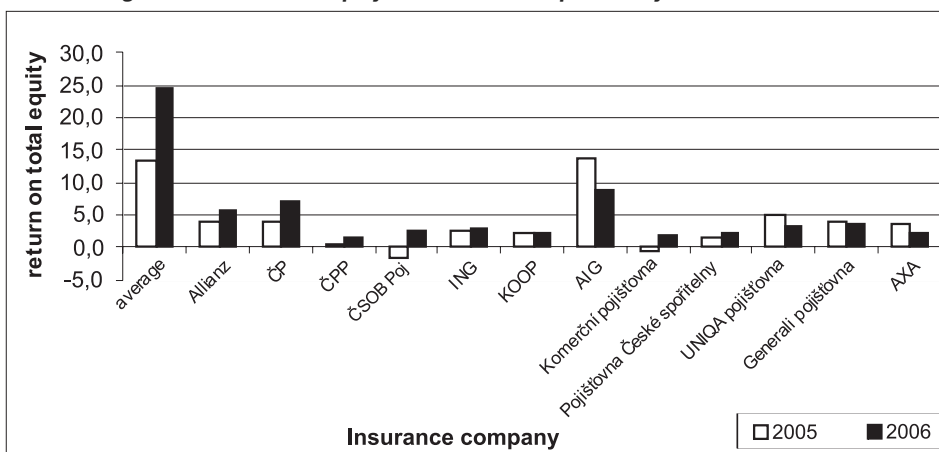
Return on Total Equity of Insurance Companies

This indicator (in %) measures profit with total capital disregarding if the source is of own sources or outcomes sources. The standard value of this indicator is not generally set. It is recommended to reach a value higher than 5%. [15]

As it is shown in Tab. 3 (and in consequence for overlook Fig. 3) that the average value of insurance companies profitability in the Czech market is very high (calculated according to data of individual insurance companies final accounts). It reached to 24,6% in 2006 and to 21,4% in 2007. It is interesting that these values were reached thanks to small insurance companies, which are able to valorize embedded capital better than big insurance companies. Big insurance companies (in Fig. 3 are the 12 biggest insurance companies) are by contrast under the recommended standard value and their return on equity is unsatisfactory.

Only AIG, one of the biggest insurance companies, received a recommended value, but it declined in comparison with 2005 and 2006. From now on it has stayed above recommended value. It is expected for this insurance company

Fig. 3: Return on total equity of insurance companies in years 2005 and 2006



Source: own elaboration

to exceed this value in 2007, because at the end of the year its net earnings increased thanks to the innovation of products in comparison with the same period in 2006. Due to these changes this insurance company was elected as „Insurance Company 2007“ in category innovation of insurance products. [1]

Registered value was increased by small insurance companies, namely by Komerční pojišťovna which managed to double profit annually followed by slight increasing of total capital. Positive economic result were influenced namely by the increasing sale of risk insurance and reserve for fulfilling of commitments from technical interest rate split. [12]

Return on Own Equity of Insurance Companies

Return on own equity of insurance companies is an indicator, which is used by owners and investors, to check up if their capital gives sufficient net earnings. Recommended standard value of this indicator is 9% (by sector). [15]

In the following Tab. 4 and Fig. 4 are released the return on own equity of insurance companies of the seven biggest insurance companies, and the average value of sector for only 2005 and 2006, because data for its calculation for all insurance companies aren't available nowadays.

In term of this indicator, position of these insurance companies is better. As it is shown in Tab. 4 (and in consequence for overlook Fig. 4) the

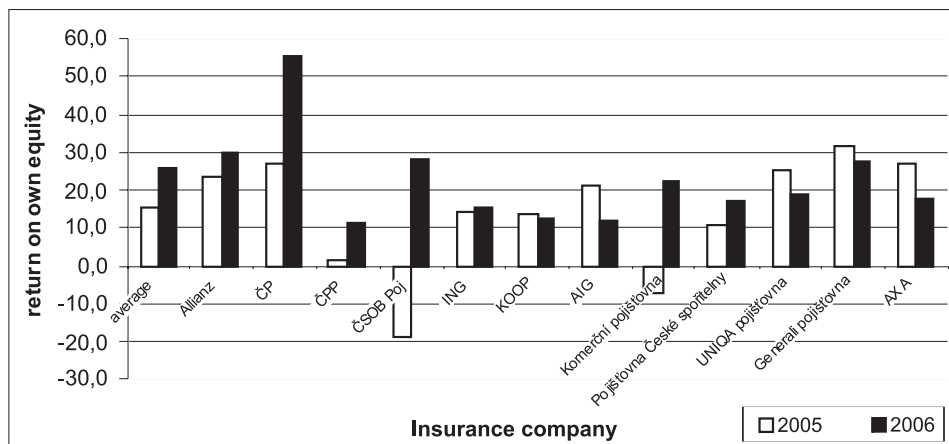
average value for 2006 was 25,9%, which meant markedly improvement according to 2005, when insurance companies reached value of 15,4%. Moreover recommended value was fulfilled also by big insurance companies in head of Česká pojišťovna, which had record-breaking 55,8%. In 2007 it had also a very high value of 37% [7] which is, according to European measure, excellent top.

Tab. 4: Return on own equity of insurance companies in the years 2005 and 2006

Insurance company	2005	2006
average	15,4	25,9
Allianz	23,93	29,5
ČP	26,87	55,82
ČPP	1,33	11,46
ČSOB Poj	-18,9	28,22
ING	14,68	15,48
KOOP	13,42	12,32
AIG	21,14	11,84
Komerční pojišťovna	-6,82	22,56
Pojišťovna České spořitelny	10,66	16,81
UNIQA pojišťovna	25,15	19
Generali pojišťovna	31,72	27,62
AXA	26,68	17,7

Source: own elaboration

Fig. 4 : Return on own equity of insurance companies in the years 2005 and 2006



Source: own elaboration

Conclusion

Return on equity has contributed to the stability of insurance companies. Return on equity of insurance companies was according to preliminary data 21,7% in 2007, (i.e. still high above recommended value for given sectors). A contradictory phenomenon was the significant increase cost in the contracting of agreement. These increasing costs can burden insurance companies for the next years.

We can summarize the situation in the insurance market as strongly financially stable in terms of return on own equity of insurance companies and in terms of solvency. In terms of return on equity of insurance companies, big insurance companies have big failings, which they try to eliminate. Conversely small insurance companies are great in this indicator and improve average value of this indicator for this sector very much.

From noted above it is concluded that the problem of insurance companies is the huge amount of outer capital (i.e. many insurance companies have wrong ratio of capital). From mentioned data it is implied that optimal ratio of own and outer capital of the Czech insurance companies is 3:2. Nowadays this ratio is fulfilled only by a selected group of insurance companies. For the future, insurance companies should have to focus more on earnings from outer capital to received profit and its better utilization.

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Ing. Rybyšarová Marcela

Univerzita Pardubice
 Fakulta ekonomicko správní
 Ústav ekonomiky a managementu
 marcela.rybysarova@upce.cz

Ing. Lelek Tomáš

Univerzita Pardubice
 Fakulta ekonomicko správní
 Ústav ekonomie
 tomas.lelek@upce.cz

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ABSTRACT**FINANCIAL STABILITY OF THE CZECH INSURANCE BUSINESS****Rybyšarová Marcela, Lelek Tomáš**

Insurance business is one of the fastest growing sectors of the Czech economy. Growth of this sector is very important, but financial stability of individual subjects acting on this market are also very important.

Financial stability and its analysis have become one of the key task for the Czech National Bank (CNB) and other national and international institutions during the past few years. Nowadays insurance companies use a large scale of indicators for assessing financial stability. The disclosure of weaknesses in a financial sector and its linkages to development on financial markets and in economic development can contribute to constraint risk connected with it. As a final effect, this can lead to stronger resistance of the financial system against shocks.

As indicators of financial stability power in the insurance business are above all considered return on equity, solvency, and capital accuracy. These ones are generally acknowledged financial stability indicators of insurance companies, which are included in European Commission study called Solvency II.

For example the insurance companies in the Czech insurance market fulfil criterion of solvency (according to audit results for the year 2006) very well, because their own sources were higher within the level of required solvency rate (100%). Aggregate disponible solvency for all insurance companies was according to recent legal rules three times higher than required solvency in the market of life insurance and 3,3 times in the market of nonlife insurance.

This paper deals with the assesment of insurance companie 's financial stability in the Czech insurance market from the point of view of return on equity, solvency, and capital accuracy indicators. It also recommends optimal capital ratio for the Czech insurance companies, which was calculated on real data.

Key Words: *Solvency, return on equity of insurance companies, return on own equity of insurance companies, financial stability, Czech insurance market.*

JEL Classification: G22.