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PROFITABILITY ANALYSIS OF INSURANCE PRODUCTS FROM POLISH MARKET IN THE PERIOD 2006-2008

Abstract: The aim of the paper is an analysis of insurance products profitability on the basis of data presented in reports by Polish Financial Supervision Authority. That is why insurance products division is the same as in regular insurance classification which is based on legislation insurance act. Information about costs and incomes is taken from financial statements of Polish insurance companies. Insurance guarantees and credit insurance are the most profitable products for the insurance companies and the worst insurance product is annuity.

Keywords: premiums, paid claims, insurance activity costs.

1. Introduction

The main aim of insurance activity is selling insurance products. Entities which do it are of course insurance companies. This branch sector is divided into two groups of institutions: life insurance companies which offer only life insurance products and non-life insurance companies which sell the rest of insurance products. Polish insurance market is supervised by Polish Financial Supervision Authority which gets financial data from all insurance companies and presents them in annual bulletins as detailed information. They could be used for the analysis and evaluation of the market.

The aim of the paper is an analysis of profitability of insurance products. Data used in this analysis are based on these presented in reports by Polish Financial Supervision Authority. That is why insurance products division is the same as in regular insurance classification which is based on legislation insurance act. Information about costs and incomes is taken from financial statements of Polish insurance companies.

Unfortunately getting data and information from management accounting for assessment is impossible, so it is the only way of making such an analysis. But in insurance companies' accounting system there are not so many differences in financial data between financial and management accounting because specific incomes and costs structure do not allow for it.

The analyzed time period covers the years 2006 to 2008. Earlier there were some changes in legislation of accounting and financial reporting so this time period is the best for comparing financial data. These changes were not so meaningful but they could have some influence on results.

Results of this analysis are presented with division into life and non-life insurance companies. There are many differences between products of these two groups but they are in the different development period, too. Life insurance market is younger and for life insurance companies more important is investment activity. Non-life insurance market is older with the structure which has not changed for years in Poland. That is why in any analysis, especially of insurance products, these two groups of insurance companies should not be connected with each other.

2. Life insurance products

Activity which is operative in insurance company is called technical activity. Technical activity consists of all operations which are connected with insurance sale and reinsurance. Technical incomes are incomes which are generated by fundamental activity of insurance company, called technical activity. The main position of technical income is premium.

In insurance companies there are three groups of costs which are the most important:

- claims paid,
- acquisition costs,
- administrative costs.

Acquisition costs and administrative costs are called costs of insurance operations and are generated in insurance company by taking out insurance contracts and operations of fundamental technical activity. Costs of insurance operations include acquisition costs, administrative costs and reinsurance commissions and share in reinsurers' profits.

In the life insurance companies products are classified as five groups based on legislation division:

- class 1 – life insurance,
- class 2 – marriage insurance,
- class 3 – unit-linked life insurance,
- class 4 – annuities,
- class 5 – accident and sickness insurance.

Characteristic feature of life insurance companies is the connection of products with investments; that is why there is strong connection between technical activity and investment activity. It could be added that in Poland these companies have been on the market for a short period, so they are still in the phase of selling products and gathering premiums. They are just starting paying claims so they have not got normal

level of costs. Especially that life insurance products are very long-term, and typical, regular payment will appear in few years.

In Table 1 data for three years for five groups from life insurance branch with the main positions of incomes and costs are presented.

Table 1. Profitability for life insurance products in the time period 2006-2008

Positions (in thousands zlotys)	Class 1	Class 2	Class 3	Class 4	Class 5
2006					
Premiums	7,933,849	144,330	9,634,427	27,991	2,844,556
Paid claims	4,872,551	171,392	2,294,123	58,726	1,010,015
Insurance activity costs	1,761,936	37,294	964,485	13,654	654,813
Result from sale	1,299,362	-64,356	6,375,819	-44,389	1,179,728
Return on sale	0.16	-0.44	0.66	-1.58	0.41
2007					
Premiums	9,697,310	135,952	11,836,380	33,827	3,289,493
Paid claims	5,328,002	176,513	3,732,188	56,663	1,102,403
Insurance activity costs	2,262,299	30,968	1,158,533	17,441	895,106
Result from sale	2,107,009	-71,529	6,945,659	-40,277	1,291,984
Return on sale	0.21	-0.52	0.58	-1.19	0.39
2008					
Premiums	27,590,593	124,550	5,725,586	44,139	3,795,248
Paid claims	11,289,338	1,77,129	6,627,608	56,774	1,251,336
Insurance activity costs	2,722,537	29,295	865,580	24,434	1,271,955
Result from sale	13,578,718	-81,874	-1,767,602	-37,069	1,271,957
Return on sale	0.49	-0.65	-0.31	-0.83	0.33

Source: own study based on [1-3].

In Table 1 (as in Tables 2 and 3) technical incomes are taken as gross premiums, which means that this position includes no reinsurance. In very similar way costs are treated as the sum of paid claims (gross) and insurance activity costs (especially acquisition and administrative costs). The result from the sale is premiums corrected by paid claims and insurance activity costs. Profitability is presented as a return on sale with the formula of result from sale divided by premiums.

These data are for the whole market so it lets us make analysis only for the wide perspective but it is not a basis for internal assessment of financial conditions for insurance companies.

The first thing which is noticed in Table 1 is that two groups of insurance: marriage insurance and annuities, are products which are not profitable. This situation was repeated during three analyzed years. But for the marriage insurance this situation is getting worse because losses are bigger from year to year. The reason for it was

increasing claims payments. Premiums are rising too and insurance activity costs are falling. For annuities the situation is different, these products are unprofitable but losses are getting smaller from year to year.

The best are in these companies life insurances. The returns on sale are rising strongly. But in this group there are no regular payments of claims, which will come soon. That is why the level of technical costs is not average and sale is increasing too.

It could be noticed that in 2008 profitability is falling for un-linked for life insurances. These products are connected very strongly with investments so this situation is a result of crisis in financial markets.

The last group of accident and sickness insurances is profitable but the profitability is falling.

On Figure 1 return on sale for all classes of life insurance products for three years from 2006 to 2008 is presented.

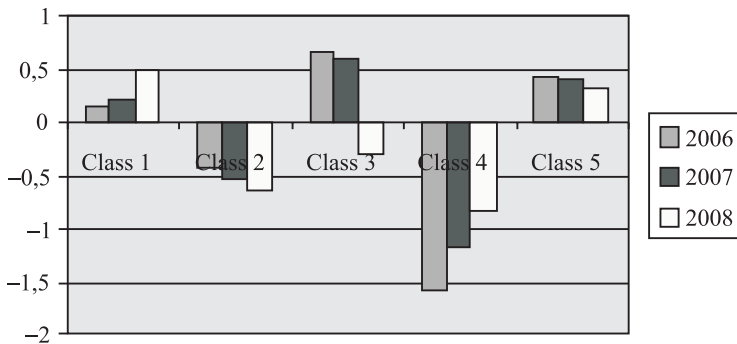


Figure 1. Return on sale for life insurance products

Source: own study based on [1-3].

On the basis of Figure 1 it could be concluded that there are many differences in return on sale between 5 classes. It could be said that each product is completely different. The class of insurance product which is developing and having better results is life insurances.

3. Non-life insurance products

Non-life insurance companies offer especially property insurances as the main and basic products but they have completed the portfolio with casualty insurances which are connected with some property insurances. In non-life insurance companies there are more products and they are divided into eighteen classes:

- class 1 – accident insurance, including accident at work and occupational disease,
- class 2 – sickness insurance,

Table 2. Profitability for non-life insurance products in the time period 2006-2008 for classes 1 to 9

Classes	2006								
	1	2	3	4	5	6	7	8	9
Premiums	753,926	145,945	4,042,836	6,448	7,186	104,329	93,988	1,317,975	840,224
Paid claims	223,730	60,747	2,713,956	3,643	1,934	98,519	24,455	483,882	246,438
Insurance activity costs	269,192	70,242	1,144,764	2,189	3,728	37,979	35,389	477,967	335,255
Result from sale	261,004	14,956	184,116	616	1,524	-32,169	34,144	356,126	258,531
Return on sale	0.34	0.11	0.04	0.09	0.21	-0.31	0.36	0.27	0.31
2007									
Premiums	820,614	154,087	4,300,392	7,520	6,401	105,289	91,784	1,384,222	919,002
Paid claims	223,202	65,354	2,789,633	7,257	9,137	128,771	38,282	793,204	363,693
Insurance activity costs	322,112	69,394	1,236,965	2,634	3,061	39,402	29,746	507,989	371,401
Result from sale	275,300	19,339	273,794	-2,371	-5,797	-62,884	23,756	83,029	183,908
Return on sale	0.33	0.12	0.06	-0.31	-0.90	-0.59	0.25	0.06	0.20
2008									
Premiums	952,913	204,684	4,928,946	10,855	8,690	98,346	93,388	1,579,345	1,071,319
Paid claims	227,298	102,461	3,115,229	5,709	8,370	140,586	34,460	776,729	446,778
Insurance activity costs	412,166	103,876	1,353,176	3,786	3,800	32,196	30,929	558,248	430,810
Result from sale	313,449	-1,653	460,541	1,360	-3,480	-74,436	27,999	244,368	193,731
Return on sale	0.32	-0.01	0.09	0.12	-0.40	-0.75	0.29	0.16	0.18

Source: own study based on [1-3].

- class 3 – land vehicle insurance (casco),
- class 4 – railway rolling stock insurance (casco),
- class 5 – aircraft insurance (casco),
- class 6 – marine insurance,
- class 7 – transport insurance,
- class 8 – insurance against fire and natural forces,
- class 9 – insurance against material damage,
- class 10 – motor liability insurance,
- class 11 – aircraft liability insurance,
- class 12 – marine liability insurance,
- class 13 – general liability insurance,
- class 14 – credit insurance,
- class 15 – insurance guarantee,
- class 16 – financial risk insurance,
- class 17 – legal protection insurance,
- class 18 – insurance of assistance.

In Table 2 the results of profitability for the classes 1 to 9 of non-life insurance companies are presented.

Looking at Table 2 it could be noticed that there is a big valuation in the profitability of the first group of non-life insurance. There are three classes in which insurance companies generated sometimes profits and sometimes losses. Accident insurances make group which is profitable but this trend is falling, in sickness insurances there was not so constant situation because in the years 2006 and 2007 insurance companies made profits but in 2008 they got losses. It is a result of the higher level of costs including paid claims and insurance activity costs.

Next three classes are casco insurances. These products are not so much profitable for insurance companies. In railway rolling stock and aircrafts insurances there were years when insurance companies noticed losses on selling them.

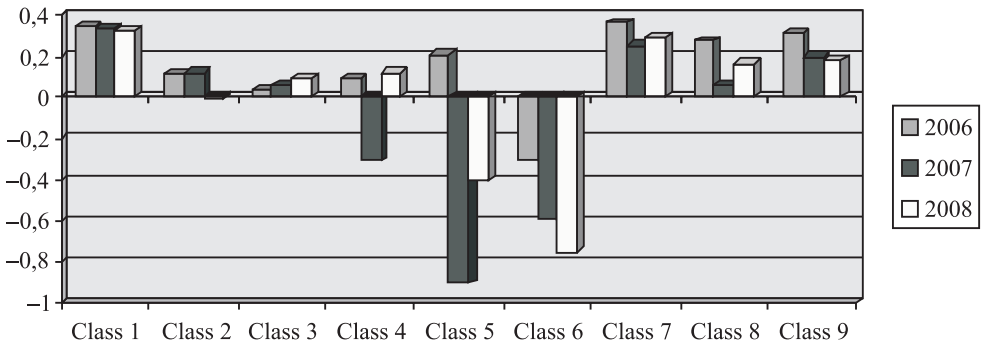


Figure 2. Return on sale for non-life insurance products (classes 1-9)

Source: own study based on [1-3].

Table 3. Profitability for non-life insurance products in the time period 2006-2008 for classes 10 to 18

Classes	10	11	12	13	14	15	16	17	18
2006									
Premiums	4,936,173	6,835	10,091	611,703	199,127	74,020	162,680	8,396	111,014
Paid claims	3,565,181	3,405	2,621	310,004	44,803	36,134	12,373	1,630	59,219
Insurance activity costs	1,170,010	4,867	4,824	235,978	39,712	25,251	110,264	8,368	4,0197
Result from sale	200,982	-1,437	2,646	65,721	114,612	12,635	40,043	-1,602	11,598
Return on sale	0.04	-0.21	0.26	0.11	0.57	0.17	0.24	-0.19	0.10
2007									
Premiums	5,443,968	5,872	9,844	669,875	277,599	68,888	204,847	17,100	142,011
Paid claims	4,340,622	701	3,884	492,184	27,679	2,760	8,234	3,221	71,793
Insurance activity costs	1,325,231	4,463	4,337	250,878	78,780	23,889	180,530	14,294	47,826
Result from sale	-221,885	708	1,623	-73,187	171,140	42,239	16,083	-415	22,392
Return on sale	-0.04	0.12	0.16	-0.11	0.61	0.61	0.07	-0.02	0.15
2008									
Premiums	6,127,295	9,970	9,501	758,161	330,014	97,794	311,301	49,296	170,363
Paid claims	4,840,012	1,559	4,083	436,340	33,765	13,894	29,097	4,197	79,104
Insurance activity costs	1,425,202	6,441	3,635	281,293	87,704	34,679	234,348	43,648	52,129
Result from sale	-137,919	1,970	1,783	40,528	208,545	49,221	47,856	1,451	39,130
Return on sale	-0.02	0.19	0.18	0.05	0.63	0.51	0.15	0.03	0.23

Source: own study based on [1-3].

Marine insurances are unprofitable for insurance companies as it could be seen in Table 2, because during the whole analyzed period they gave only losses. The last three classes are still profitable but this situation is getting worse.

The return on sale for the first part of non-life insurance products, for classes 1 to 9 for three analyzed years, is presented in Figure 2.

As it could be seen in Figure 2, the worst results for return on sale are for classes 5 and 6. In these classes are aircraft and marine insurance, but they are casco insurance. There are not so many valuations as in life insurance sector. Profitability for the next classes of non-life insurances, from 10 to 18, is presented in Table 3.

As it could be noticed in Table 3, in this group of non-life insurance products the situation is very similar because there are many valuations. Classes 10, 11 and 12 include liability insurances connected with vehicles, ships or airplanes. There is very interesting conclusion because the most profitable product is marine liability insurance. Casco insurance for marine is the worst class for profitability.

Class 10 is almost unprofitable but the share of total premium for this group is very big, that is why this is very important class for insurance market.

Non-life insurance products the profitability of which is growing are credit insurances, insurance guarantees and transport insurances. Credit sale has been increasing for few years in Poland so this is the result of selling bank assurance which is offered with credit. Insurance guarantees are products for the target client which is business and they are usually closely connected with business contract as the one of conditions. Both of these classes make group of non-life insurance products which are sold for companies. They are new on Polish insurance market but this part of market is still developing quickly. They are the most profitable products although the share in the market for these classes is not big yet.

Returns on sale for the second part of non-life insurance products, from class 10 to 18 for 2006-2008 period are presented in Figure 3.

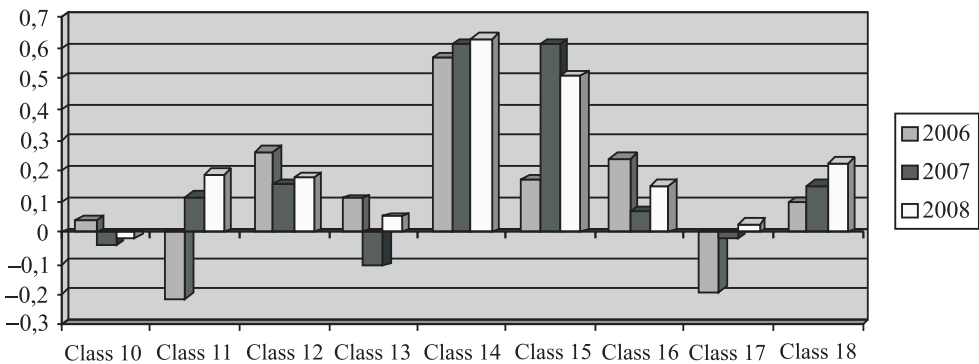


Figure 3. Return on sale for non-life insurance products (classes 10-18)

Source: own study based on [1-3].

The main conclusion based on Figure 3 is that in this part of insurance products there are the best classes of insurance which give the highest return on sale. These are credit insurance and insurance guarantees which are special offer for business. In Polish companies the need for using insurances as a tool of risk management does exist. That is why the sale of business insurance is growing and the level of costs (for example paid claims) is not yet so high, so they are very profitable products for insurance companies now.

4. Conclusions

The analysis of profitability of insurance products has the main aim which is the assessment of Polish insurance market as a whole, but not for individual conditions of insurance companies. These results which are presented above could show some trends in insurance market and what has happened in insurance companies.

It should be added here that insurance companies have the second activity which is very important. This is investment activity whose financial results influence profits in insurance companies. This analysis does not include them because it focuses only on technical activity.

As the conclusions of this analysis it should be pointed out that:

- insurance companies have in their portfolio some products which are not profitable,
- some insurance products are connected with big valuation because they make profit in one year and loss in the next,
- insurance guarantees and credit insurance are the most profitable products for the insurance companies now,
- the worst insurance product is annuity.

At the end it should be reminded that in financial statement for insurance companies results are corrected by changes in technical reserves, which is characteristic and specified for insurance accounting. That is why this has influence on final profitability.

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ANALIZA RENTOWNOŚCI PRODUKTÓW UBEZPIECZENIOWYCH NA PRZYKŁADZIE POLSKIEGO RYNKU W LATACH 2006-2008

Streszczenie: Celem artykułu jest analiza rentowności produktów ubezpieczeniowych na podstawie danych zagregowanych publikowanych przez Komisję Nadzoru Finansowego. Ubezpieczenia zostały podzielone na życiowe i niezyciowe z ustawowymi grupami ubezpieczeniowymi stanowiącymi odpowiednio 5 i 18 klas. Badanym okresem były trzy lata – od 2006 do 2008. Najbardziej rentowne okazały się ubezpieczenia kredytu oraz gwarancje ubezpieczeniowe, a najmniej rentownym produktem są ubezpieczenia rentowe.