# **SUPPLEMENTAL MATERIALS**

## **DIAGNOSTIC FEATURES**

#	Mark	Feature	Kind of influence
1	X1	Average yearly rainfall level	Positive
2	X2	Maximum rainfall level	Positive
3	Х3	Average wind speed	Positive
4	X4	Medium temperature	Neutral
5	X5	Absolut minimum temperature	Neutral
6	X6	Absolute maximum temperature	Neutral
7	X7	Flood shafts long	Negative
8	X8	Flood area protected	Negative
9	X9	Capacity of flood shafts	Negative
10	Z1	Changes of GDP	Positive
11	Z2	Financial development	Positive
12	Z3	WIG index	Positive
13	Z4	Average monthly salary	Positive
14	Z5	Gross written premium	Neutral
15	Z6	Profitability of technical accounts	Positive
16	Z7	Return on equity	Positive
17	Z8	Claims ratio	Negative
18	Z9	Changes of structure of gross written premium	Positive
19	Z10	Education level	Positive
20	Z11	Dependency ratio	Positive
21	Y1	State of health care	Positive
22	Y2	Share of state spending in total healthcare spending	Negative
23	Y3	State health care policy	Negative
24	Y4	Share of health care spending in budget of households	Positive
25	Y5	Change of number of private health care customers	Positive
26	Y6	Monthly average salary	Positive
27	Y7	Households health spending	Positive
28	Y8	Change of health insurance gross written premium	Positive
29	Y9	Healthcare insurance offer	Positive
30	Y10	Price of healthcare insurance polices	Positive
31	F1	Changes of GDP	Positive
32	F2	Changes of GDP - trade	Positive
33	F3	Changes of GDP - industry	Positive
34	F4	Changes of GDP - construction	Positive
35	F5	Changes of domestic investment	Positive
36	F6	Changes of FDI	Positive
37	F7	PLN/Euro – exchange rate	Neutral
38	F8	PLN/USD – exchange rate	Neutral
39	F9	Export [million PLN]	Positive

40	F10	Gross written premium in financial insurance	Positive
41	F11	Level of claims in financial insurance	Negative
42	F12	Number of polices of financial insurance	Positive
43	F13	Insurance premium	Neutral
44	F14	Capacity of insurance guarantees market	Negative
45	F15	Level of expired debts	Negative
46	F16	Number of bankrupt companies	Negative

<sup>\*</sup> Features marked with different colors were chosen for the analysis of a different insurance sector.  $X_1 - X_9 -$  describes Catastrophe insurance,  $Z_1 - Z_{11} -$  Life insurance,  $Y_1 - Y_{10} -$  Health insurance,  $F_1 - F_{16} -$  Financial insurance.

#### **CATASTROPHE INSURANCE**

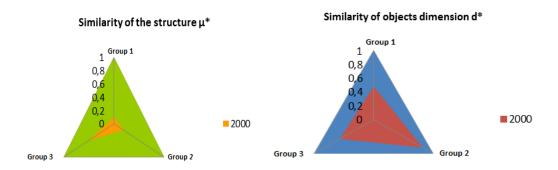


Figure 1: Similarity of structure and dimension in 2000 in comparison to a reference object. (A reference object is marked yellow and blue).

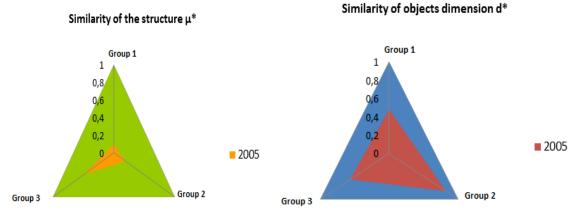


Figure 2: Similarity of structure and dimension in 2005 in comparison to a reference object. (A reference object is marked yellow and blue).

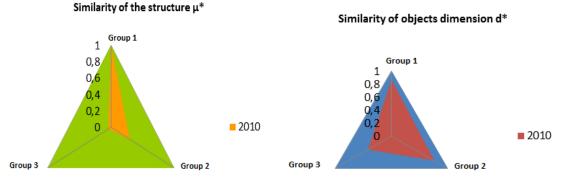
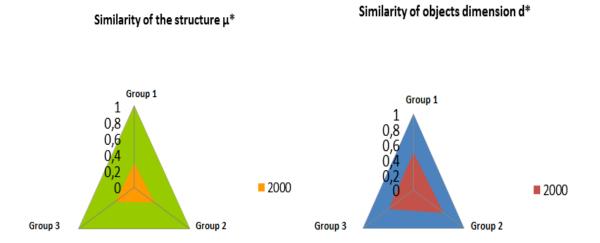


Figure 3: Similarity of structure and dimension in 2010 in comparison to a reference object. (A reference object is marked yellow and blue).

#### LIFE INSURANCE



**Figure. 1a.** Similarity of structure and dimension in 2000 in comparison to a reference object. (A reference object is marked yellow and blue).

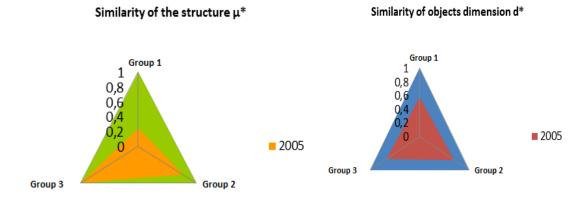


Figure. 2a. Similarity of structure and dimension in 2005 in comparison to reference object. (A reference object is marked yellow and blue).

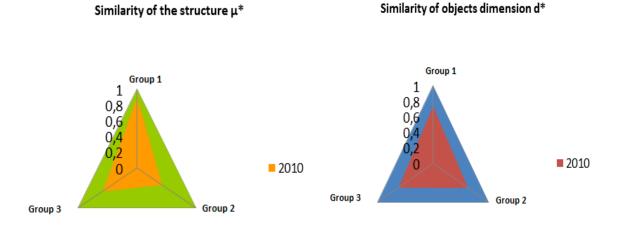
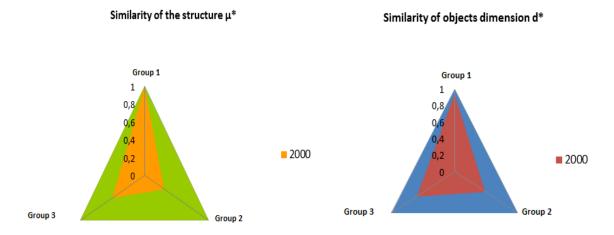


Figure. 3a. Similarity of structure and dimension in 2010 in comparison to reference object. (A reference object is marked yellow and blue).

#### **HEALTH INSURANCE**



**Figure 1b.** Similarity of structure and dimension in 2000 in comparison to reference object. (A reference object is marked yellow and blue).

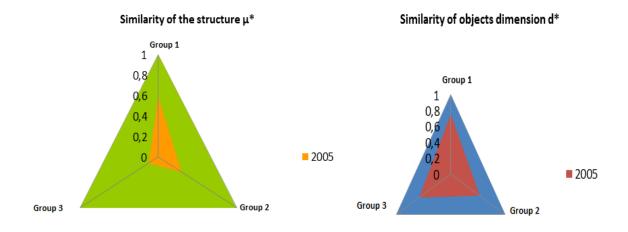


Figure 2b. Similarity of structure and dimension in 2005 in comparison to a reference object. (A reference object is marked yellow and blue).

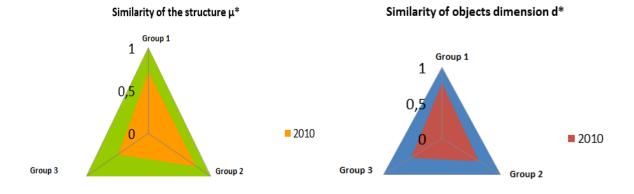
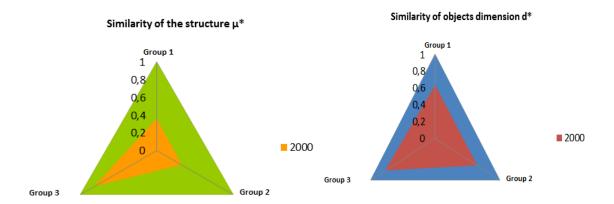
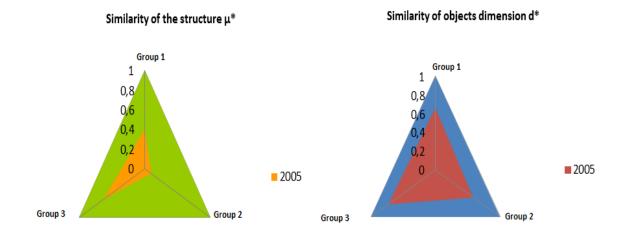


Figure 3c. Similarity of structure and dimension in 2010 in comparison to a reference object. (A reference object is marked yellow and blue).

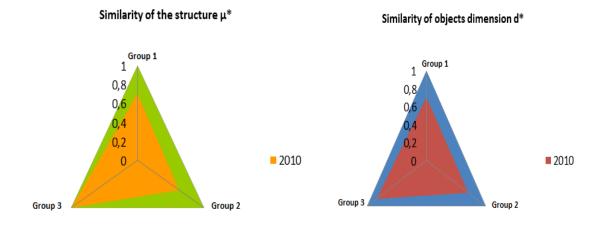
### FINANCIAL INSURANCE



**Figure. 1d.** Similarity of structure and dimension in 2000 in comparison to a reference object. (A reference object is marked yellow and blue).



**Figure 2d.** Similarity of structure and dimension in 2005 in comparison to a reference object. (A reference object is marked yellow and blue).



**Figure 3d.** Similarity of structure and dimension in 2010 in comparison to a reference object. (A reference object is marked yellow and blue).