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VERIFICATION OF THE DISCLOSURE LEMMA FOR POLISH BROKER-DEALERS MARKET

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Summary

The paper presents the approach for the verification of the lemma used for the model for reputation risk for subsidiaries of non-public group with reciprocal shareholding as proposed by the author in priory works. For all entities with the absolute value of the reputation risk greater than the entity's materiality the reputation risk management system should be in place . The entire population of the Polish broker-dealers market was investigated. Based on the accounting assessment of the materiality, market value of the consolidated equity for listed groups and BASEL II disclosure a verification procedure was designed. Based on the procedure, the lemma was confirmed.

Key words /Tags:

Risk, Reputational risk, Model, Risk management, IFRS, BASEL,CRD, Accord, Solvency, Disclosure

JEL: M41, G32, K23

Type of research: experimental

1. Introduction

The lemma discussed in this paper was used for the purpose of the design of the model for reputation risk for subsidiaries of non-public group with reciprocal shareholding. The model delivered a concept for reputation charge at the level of the unconsolidated entity with reciprocal holding when the market quotation of the group is not available. The model was based on the following lemma:

Lemma 1 for $|z| \geq M$ than the reputation risk management system should be in place for any entity. Thus there could be a tendency for high positive z (above M) to set up the risk management system but without recognition of the risk value in the risk reporting.

For any $z < 0$ where $|z| \geq M$ the reputation risk should be disclosed by applying true and fair concept to the financial reporting.

Where:

z - value of reputation,
M – materiality.

The purpose of this paper is to show the empirical test for the lemma.

2. Background

The reputation is defined for the model as current or potential cash outflow arising from information not reflected in the current fair value of net assets controlled or influenced by an entity.

Let :

y - represents the fair value of net assets controlled or influenced,
x - current market value of the equity,

Subject to (initial assumptions):

i. efficient market,
ii. public traded shares of the entity on consolidated bases,
iii. lack of material influences on other companies,
iv. net controlled and influenced assets are verifiable,
v. the auditing procedures are efficient, subject to non-material errors,
vi. consolidated values are available.

The following equation denotes the lack of the reputation:

$$y = x$$

$$x \;\varepsilon\; R;\; y \;\varepsilon\; R_+$$

The equation represents the situation where the fair value of the net controlled and influenced assets is equal to the market value of the entity. Thus the value of reputation equals:

$$z = x\text{-}y$$

$$z, x \;\varepsilon\; R;\; y \;\varepsilon\; R_+$$

If $z \neq 0$ than the reputation is recognized. In any $z > 0$ the reputation assets are build up while for $z < 0$ there is a fair market expectation that the entity assets include the expected cash outflow due to the reputation.

3. Theoretical Considerations

The background of the model and its theoretical consideration has been provided by Staszkiewicz. For the verification of the lemma the general accounting materiality concept was applied.

There is no prescribed benchmarking for materiality. Blokdijk et al. indicate after Kinney and Guy et al. the existence of the heuristics "frequently suggest the planning materiality ranges from 5 percent to 10 percent of Net Income before Taxes (NIVT) or 0,5 percent to 1,5 percent of Total Assets or Revenues". Even if the specific benchmarks are not stable and depend on number of qualitative factors, for this research the heuristic approach was applied.

One of the part of the capital requirements is the economic capital assessment of the entities itself. In contrast to the supervisory rules, self assessment builds up the base for recognition of so called not measurable risks. Standards for capital requirement calculating tend to influence the pro-cyclicality, thus there is a need for either bank (brokers-dealers) supervisors for "dynamic provisioning" or "dynamic regulation" as indicated by Sławiński. The pro-cyclicality is opening the space for alternative automatic stabilization tools search. An another approach could be applied by entities with dynamic allocation of capital to non-measurable risk as e.g. reputation risk.

For the purpose of reputation risk calculation the financial approach has been selected for the model. There exist other solutions presented in social reporting stream, such as marketing and mix approach derived from the brand name. Adamska and Dabrowski indicated that the term of reputation and risk need still a uniformed definition. Lajoie stated that measurement of the reputation risk is difficult itself "the risk appetite is nil: not expected losses are to be tolerated in this field". Bebbington et al. stated openly that "the identification of reputation risk is closely linked to attempts to manage such risks." thus there are strong interconnections between models and management strategies.

Simplified measurement of the reputation risk was already criticized - "narrow calculations of cost benefits are insufficient for the management of reputation risks" - by Scott and Walsharn. Another observation was noted by Tadelis that "name trading and name changing seem to be a rule, rather than an exception". He indicated that the name was behaving itself as an asset.

Application of IAS 39 has built a bridge between historic and fair value accounting for financial instruments and a transmission channel for the fair value volatility. This was further investigated as the 2008 crisis occurred by other authors - Strampelli, Bischof, Barth et al. The consequence of fair value reporting on an effective market was among others that the balance sheet value of net assets should be equal to market value of equity[2]. Thus the net equity (including profit and loss), total liabilities and provisions would have to reflect in total the fair value of assets.

Beyond the above mentioned discussion, there is a formal request to verify the lemma, at least at a reasonable level in order to assess the above-mentioned reputation model itself.

4. Empirical model, data and procedures

Model: Lemma 1.

Data sources: stooq.pl, web pages of the companies on Polish broker-dealers market .

Cut of date:

- 31 December 2010 for financial statements and capital adequacy reports,
- for quotation the closest quoting date to 31 December 2010,
- in case of the beginning of the quotation after the 31 December 2010 the date of first quotation.

[2] Subject to problem with fair value valuation of own generated liabilities.

For NWAI the 2011 capital adequacy report was used.

Scope of population: The Polish broker-dealers market was chosen for verification purposes. The broker-dealers which were domiciled in Poland as of the cutoff date were selected for the verification process. The dealer-brokers operating within the structure of the banks, foreign banks and branches (semi-brokers-dealers) were excluded, as those entities do not report separately the capital adequacy and financial statements. Another reason for the exclusion was that that semi-broker-dealers are integrated to risk management system of larger and more diversified organizations like banks or conglomerates. The entities being the members of a financial group or conglomerate, quoted on the main or alternative markets, but not quoted as individual entities were excluded due to allocation bias[3] risk.

The entire population of 50 entities was verified. Out of the population of the entities floated on the stock exchange (main or alternative market) – 7 – met the selection criteria mentioned above. Procedures:

1. Market selection – broker-dealers market.
2. Gathering of data – web and database search.
3. Selection of the target group – conditional selection for lemma statement, directly quoted investment companies domiciled in Poland as at the current date reconciled back to the cut off, in case of short time series as at the first quotation date
4. Consideration of both financial statements based on IFRS and PL GAAP. In case of availability of both unconsolidated and consolidated financial statement, the consolidated were used to reconcile the entity market value.
5. Capital adequacy reports were based on the implementation of 48 and 49/2006 EU directives. In case of lack of reports as of the cutoff date the next closes report was selected.
6. If financial report of an entity was qualified, the entity was excluded from procedures and discussed separately.
7. Market values calculation: the closest available date to the cutoff date for market valuation (30 or 31 of December, 2010)[4] was taken into account.
8. For materiality calculation the two-fold procedure was applied. The maximum and minimum values of the scalar, derived from financial statements[5] of net equity, profit before taxation, total assets and revenues from core activities weighed with the materiality rated as 5%, 8%,0,1%,0,5% respectively. The inequality $|z| \geq M$ was considered for maximum and minimum values of M.
9. The reputation risk management system was assessed as existed if in the capital adequacy disclosure report the reputation risk itself was named and addressed.

[3] The fact of recognition of the reputation risk on the group consolidated level does not implies the recognition of the reputation on subsidiary level as well the consolidated fair value of markets on the group level is not necessary to be straight allocable to the subsidiary. Thus market value, disclosure of the capital adequacy on that level might be misleading.
[4] Quotation historic data were retrieved from stooq.pl archive.
[5] In case of GAAP differences the most adherent values was taken into account.

10. The financial recognition of the system in the economic capital provision was considered as existing only if it was disclosed both on the level of financial statements and capital adequacy report.

5. Results

The market consist of 50 broker-dealers entities out of them 7 is quoted directly on main or alternative market.

For 6 entities the z was positive, for one, IDM SA, negative.

For all of the selected entities the inequality $|z| \geq M$ holds true irrespectively of the minimum or maximum value of M. Details of specific entities are shown in table 1 for z vales and table 2 for materiality.

Non of the seven considered entities had financial statements qualified by the auditor. In case of Copernicus securities an explanatory note was included in the auditor opinion.

In all entities, in case of high positive z (above M), the risk management system was reported in capital adequacy regime but not reported in financial statements regime. There were no information provided for the values of the reputation risk neither in capital reporting systems nor in financial statements. The details for entities are shown in table 3. The data sources are shown in table 4.

For NWAI the consolidated data were not available, therefore, the unconsolidated data were used instead. In case o Caspar AM, there was no direct disclosure of the reputation risk factor, but it was recognized as a part of the non-quantifiable risk. The disclosure was considered as part of risk management system for reputation risk.

For Caspar and NWAI the first quoting dates were used, 25 March 2011 and 18 January 2011 respectively. For Copernicus the 30 December 2010.

6. Discussion

The lemma 1 has been proofed to hold true for the Polish broker-dealers market as of the cutoff date. The empirical proof, however, is not dynamic and limited to Polish domiciled broker-dealers. The actual size of the market quoted population is relatively small, therefore, the results are subject to errors. Lack of information of distribution of the all Basel-regime entities does not allow to draw valid conclusion on other segments of the market and geographical territories.

For NWAI, the consolidated data were not available, therefore, the unconsolidated data were used instead. The test of materiality for NWAI yields 32382 to 155; z to M ratio being unlikely to change significantly by consolidation. The assumption taken for calculation of M - mainly the financial statements aggregates fractions - is subject to judgmental selection. The materiality criteria are widely used in auditing practice, therefore, they are likely to represent the expected financial statement tolerable error.

In case o Caspar AM there was no direct disclosure of the reputation risk factor, but it was recognized as part of the non-quantifiable risk. The disclosure was considered as part of risk management system for reputation risk. The market value calculation is subject to the point of time error. A selection of average, mid spread, might yield different results. The actual results, however, indicate high tolerance for valuation errors. Selection of point data allows for structural comparison. The time lag of the cutoff date for market quoting for Caspar, NWAI and Copernicus was considered to be insignificant. This assumption was not verified.

Even if the reference market (both main and alternative) does not comply with the effective market postulates, as verified by Buczek, the lemma mechanism proofed to be operating.

7. Concluding comments

The paper presented the approach for verification of lemma used for the model for reputation risk for subsidiaries of non-public group with reciprocal shareholding. The lemma seems to be verifiable for one period, however, its dynamics was not addressed. The lemma tends to be proofed for isolated sector of the broker-dealers domiciled in Poland. Even if the entire population has been examined the generalization of results is not likely due to specific nature of the broker-dealers market.

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Tables

Table 1

As of 31 December 2010						
000 PLN		Market value	Net equity	Consolidated		
Entity name		x	y		z	Positive
1	IDM SA	650 167	721 613	Yes	-71 446	No
2	Ipopema securities SA	447 769	69 251	Yes	378 518	Yes
3	TMS Brokers SA	220 598	24 801	No	195 797	Yes
4	WDM S.A.	59 400	44 307	Yes	15 093	Yes
5	Caspar AM SA	92 263	6 074	No	86 189	Yes
6	Copernicus securities SA	186 599	39 995	Yes	146 604	Yes
7	NWAI Dom Maklerski SA	35 179	2 795	No***	32 383	Yes

*** Availble only uncosolidated data

Table 2

As of 31 December 2010								
000 PLN		Materiality rates		8%	0,50%	5%	0,10%
Entity name		Materiality		Pretax profit	Revenue*	Net equity	Total assets
		Max	min				
1	IDM SA	36 081	616	41 173	123 216	721 613	1 290 326
2	Ipopema securities SA	3 463	408	23 542	100 415	69 251	408 402
3	TMS Brokers SA	1 694	84	21 181	16 742	24 801	133 061
4	WDM S.A.	2 215	17	2 020	3 434	44 307	62 617
5	Caspar AM SA	304	8	707	7 125	6 074	7 588
6	Copernicus securities SA	2 000	71	6 123	24 086	39 995	71 127
7	NWAI Dom Maklerski SA	155	4	1 941	4 553	2 795	3 708

*From basic operation

Table 3

As of 31 December 2010		Reputation risk disclosure		
		Financial statements	Adequacy disclosure	Risk value
Enity name		Yes/No	Yes/No	Yes/No
1	IDM SA	Yes	Yes	No
2	Ipopema securities SA	No	Yes	No
3	TMS Brokers SA	No	Yes	No
4	WDM S.A.	No	Yes	No
5	Caspar AM SA	No	Yes**	No
6	Copernicus securities SA	No	Yes	No
7	NWAI Dom Maklerski SA	No	Yes	No

** As a part of hard quntifiable (non measurable) risks

Table 4

As of 31 December 2010		
000 PLN		
Enity name		Source of data
1	IDM SA	http://www.idmsa.pl/type,2,date,2005,raporty-okresowe.html
2	Ipopema securities SA	http://www.ipopemasecurities.pl/articles.php?miId=117&lang=pl
3	TMS Brokers SA	http://www.tms.pl/relacje-inwestorskie/raporty-okresowe.html
4	WDM S.A.	http://wdmsa.pl/34,relacje-inwestorskie/adekwatnosc-kapitalowa.html
5	Caspar AM SA	http://www.casparam.pl/
6	Copernicus securities SA	http://www.copernicus.pl/node/196/page/4/pl/
7	NWAI Dom Maklerski SA	http://www.nwai.pl

Table 5

Entity	Data	Closing	No of shares	Market value
IDM SA	2010-12-31	2,98	218 176 856	650 167 031
Ipopema securities SA	2010-12-31	15,05	29 752 122	447 769 436
TMS Brokers SA	2011-01-18	62,67	3 520 000	220 598 400
WDM S.A.	2010-12-31	0,72	82 500 000	59 400 000
Caspar AM SA	2011-12-08	50,1	1 841 577	92 263 008
Copernicus securities SA	2010-12-30	161,55	1 155 056	186 599 297
NWAI Dom Maklerski SA	2011-03-25	19	1 851 500	35 178 500

Streszczenie

Referat przedstawia metodologię weryfikacji lematu dotyczącego modelu model ryzyka reputacji podmiotu zależnego w sytuacji kontroli wzajemnej w niepublicznej grupie kapitałowej. Dla podmiotów, których absolutna wartość reputacji przekracza wielkość istotności powinien być wdrożony system zarządzania ryzykiem reputacji. Badaniem objęto całą populacje firm inwestycyjnych domicylowanych w Polsce. Zastosowano model istotności dla celów rewizji finansowej, wartość rynkową skonsolidowanych aktywów netto oraz ujawnienia wymogu kapitałowego dla celów adekwatności kapitałowej firm inwestycyjnych. Zweryfikowano pozytywnie lemat.