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# VOLUNTARY RISK REPORTING IN ANNUAL REPORTS – CASE STUDY OF THE PRACTICES OF POLISH PUBLIC COMPANIES[1]

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**Abstract**

Grounded on literature review on risk disclosures and risk reporting practices, the paper aims to explore the extent and content of voluntary risk reporting practices of non-financial companies. Annual reports, focusing on several areas of concern of sampled public companies from three different sectors were subject to content analysis combined with morphology analysis. The results show that the extent of risk disclosure within non-financial risk exposure is broad and not connected with the sector, which is similar to findings within the cohesion of reported risk exposure with those provided in the so-called "top 10 risk" rankings. However, disclosures concerning risk management practices visibly differ among the analysed sectors. The paper contributes to the existing debate on the need and practice of risk reporting by providing insight into practices of non-financial companies operating in Poland as an emerging economy.

**JEL classification:** M48, G34, G38

**Keywords:** risk reporting, risk disclosures, risk management, annual reports

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## Introduction

Nowadays, risk management is perceived as a component of corporate governance and thus the corporate governance codes worldwide address the problems related to the risk management process (Woods, 2011). As a consequence, selected issues related to risk management practice are included in the information provided in financial statements and due to this inclusion they provide publicly available risk reporting. Risk reporting issues may be analysed in the broader context of corporate communication and investor relations practices (Łukasik & Błach, 2013). Effective risk reporting practices (both in their mandatory and voluntary aspects) may decrease the information asymmetry between a company and its stakeholders, improve the creditworthiness of the company, build positive relationships, strengthen trust in its management and, as a consequence, positively influence the company's valuation.

The idea of including risk reporting in financial statements came about as a response to several scandals and malfeasance of companies, which damaged confidence in financial reporting (Graham, 2011; Woods, 2011; Young & Tippins, 2001). However, companies rely on quite general recommendations in this area, provided mainly by various risk management standards. The best practice of the market leaders remains an important source of knowledge concerning corporate risk reporting.

The main purpose of the paper is to explore the extent and content of voluntary risk reporting in the financial statements of non-financial companies. Grounded on literature review of the scope of risk reporting and disclosure practices in different countries (eg. Cabedo & Tirado, 2005; Carlon, Loftus & Miller, 2003; Deumes, 2008; Dobler, 2008; Oliveira, 2011; Solomon J.F., Solomon A., Norton & Joseph, 2000) we intend to verify the depth and coherence of the risk information provided in annual reports of a sample of Polish public companies. The motivation behind the paper is the initial observation that in Poland (where the problem of risk management and corporate governance is still a relative novelty) companies report risk in a very limited way. Polish companies faced the need to provide information on risk accompanying their activity (in particular financial instruments and risk) as a result of compliance requirements, such as IFRS7 (International Financial Reporting Standards [IFRS], 2011) or Directive 2004 of European Parliament (Directive of the European Parliament and the Council, 2004). According to different regulatory bodies, corporate risk reporting practices are still insufficient and lead to the problem of "the risk information gap". As a consequence, Polish companies have become increasingly interested in the problems related to risk management, in particular the scope and recommendations of various risk management standards.

The problems raised in the paper contribute to the existing debate on risk reporting, mainly by providing an insight into risk disclosure practices applied by companies operating in a relatively young market economy, with a relatively short history of financial market development and at an early stage of risk management and corporate governance practices. Another contribution is a focus exclusively on non-financial companies, while most of the similar studies revise purely a sample of financial companies, or rely on a mixed sample.

The paper is organized as follows. In the first section we provide a literature review on risk reporting disclosures within the relevant aspects. The second section of the paper presents the adopted research methodology. The third section provides the research findings together with discussion. Section four concludes the paper.

## Literature review

Risk reporting is an important element of financial reporting as it may bring a company numerous benefits. Many studies address the positive effects of risk reporting. Linsley and Shrives (2000) stated that the main benefit from larger and better risk reporting is the reduction of a company's cost of capital. Risk reporting reduces the information asymmetry between a company and capital providers. As a consequence, the capital providers are willing to reduce the risk premium (as their anxiety about the company's risk exposure is reduced). From a company's point of view, risk reporting allows for the better recognition of the best direction of a company's future and growth (Cabedo & Tirado, 2004; Institute of Chartered Accountants in England and Wales [ICAEW], 1999a). From the investors' point of view, risk reporting allows a better description of the company's risk profile as an object of investment, better valuation of financial instruments, including the projections of their volatility

(Helliar & Dunne, 2004). Also, broader risk reporting allows for the better analysis and projection of company's future earnings (Deumes, 2008). Broader risk reporting allows companies to avoid the impact of risk underestimation and the overestimation of a company's value, thus helping them to maintain long-term financial stability and financial reputation (Fuller & Jensen, 2002). However, the increased transparency of a company may result in some negative consequences. Loss of competitive advantage and costs of preparing risk reports are considered the greatest costs and threats of broader risk reporting.

The existing literature debate often pays attention to the problem of the "risk information gap". The studies conducted in the USA and UK indicate that the information about risk which is reported to company stakeholders is insufficient (e.g. Linsley & Shrives, 2006; Schrand & Elliot, 1998; Solomon et al., 2000). As a consequence, stakeholders wrongly assess the risk profile of a company. Organisations which deal with accounting standards (such as the Accounting Association/Financial Accounting Standards Board [AAA/FASB] and the Institute of Chartered Accountants in England and Wales [ICAEW]) postulate the need to enlarge the information about risk in companies' annual reports (ICAEW, 1998; ICAEW, 1999b; ICAEW, 2002).

The problem of the "risk information gap" is interconnected with the observed attitudes of the management board to risk reporting. Management boards are often prone to report risk which was connected with a company's activity in the past (the retrospective attitude) or to report the current risk exposures. Rarely do they report the risk which may threaten a company's activity in the future (prospective attitude). If included, the prospective information is very limited and general, often useless for decision making purposes (Beattie, McInnes & Fearnley, 2004b; Linsley & Shrives, 2005). The management board is particularly unwilling to present the information about future company risk exposure if this risk exposure is not managed (and safeguarded). Also, in the case of reporting the future risk, the management board tends to indicate the negative consequences as depending on circumstances beyond their control (Beretta & Bozzolan, 2004). The management board's unwillingness to report the future risk of a company is harmful from the investors' perspective – investors are particularly interested in future risk exposures as they influence the efficiency of investment decisions (Dietrich, Kachelmeier, Kleinmuntz & Linsmeier, 2001). It was also observed that companies prefer to report risk qualitatively rather than quantitatively. The quantitative information, if provided, is incomparable from the investors' perspective. The comparison of risk levels between companies is impossible (Hodder, Koonce & McAnally, 2001; Jorion, 2002). The studies on various groups of stock exchange companies in different countries (i.e. in Australia, Canada, Italy, Japan and Germany) showed that the scope and level of detail of risk reporting varies significantly in voluntary risk reports. Such reports usually present general information and rarely indicate a connection between a given risk exposure and the prospective company's situation (Carlon et al., 2003; Dobler, 2008).

Another problem arises from the fact that risk disclosures in annual reports use different vocabularies to describe risk. The reports quote various categories of risk, which raises some difficulties in comparative studies (compare eight categories of risk reports in Deumes, 2008 or Beretta & Bozzolan, 2004 and their risk classifications).

## Research methodology

### Sample and Data

The purpose of this study is to explore the extent and content of voluntary risk reporting in annual reports of sampled Polish companies. In many previous studies a relationship between the scope of risk reporting and the size of a company was recognized. It was confirmed that larger companies inform shareholders about their risk in more detail (Abraham & Cox, 2007; Atan, Maruhun, Kadir & Jusoff, 2010; Beretta & Bozzolan, 2004; Linsley & Shrives, 2005; Zain & Janggu, 2006). Accordingly, the sample of companies whose risk disclosures in annual reports are studied here, includes the largest and most liquid companies listed on the WSE (Warsaw Stock Exchange) Main Index and those included in the WIG-30 index portfolio. Risk reporting disclosures of Polish companies have been recently surveyed by Skowron (2013). Skowron's survey was also based on annual reports of selected WSE WIG-30 companies, and was related to the number of companies reporting financial and operating risk exposures and the process of risk management. However, Skowron's study included 20 companies, of which 5 belong to the financial sector and the remaining 15 were non-financial companies. In our study we focus exclusively on non-financial companies, as risk disclosures for the financial sector are quite concrete and thus we believe that the practices of non-financial companies are incomparable to financial companies.

Moreover, from the WIG-30 we selected companies which belong to the same sector. This was motivated by findings reported internationally in some studies which highlighted a relationship between the company's branch (sector) and the scope of its risk reporting. For example, it was confirmed that in Malaysia and New Zealand companies whose activity is influenced by natural (environmental) factors tend to report risk in more detail (Attan et al., 2010; Manaf, Atan & Mohamed, 2008; Hackson & Milne, 1996). Finally, our sample included 9 public companies, representing 3 different sectors:

1) fuel and gas: PKN Orlen, Lotos, PGNiG,
2) raw materials: KGHM, LWB and JSW,
3) trade: CCC, Eurocash and LPP.

Short characteristics of the sampled companies are provided in Annex 1. The subject of the analysis was risk disclosures included in consolidated annual reports of the sampled companies for 2013. In particular, two parts of the annual reports were analysed: (1) financial statements, including the explanatory notes, and (2) management board reports on the operations.

**Research Questions**

For companies operating in the financial sector, risk reporting disclosures are connected with performance requirements and financial stability requirements, as provided in appropriate regulations (e.g. for the banking sector or insurance companies). For companies operating in the non-financial sector, however, the scope and extent of risk reporting remains unregulated in many aspects. There are only general accounting requirements, which are detailed for public companies. In Poland, the Accounting Act (1994) states that a public company should report:

1) the important risk factors and risk exposures, with an indication as to how the company is exposed to these risks (as a part of the additional information linked

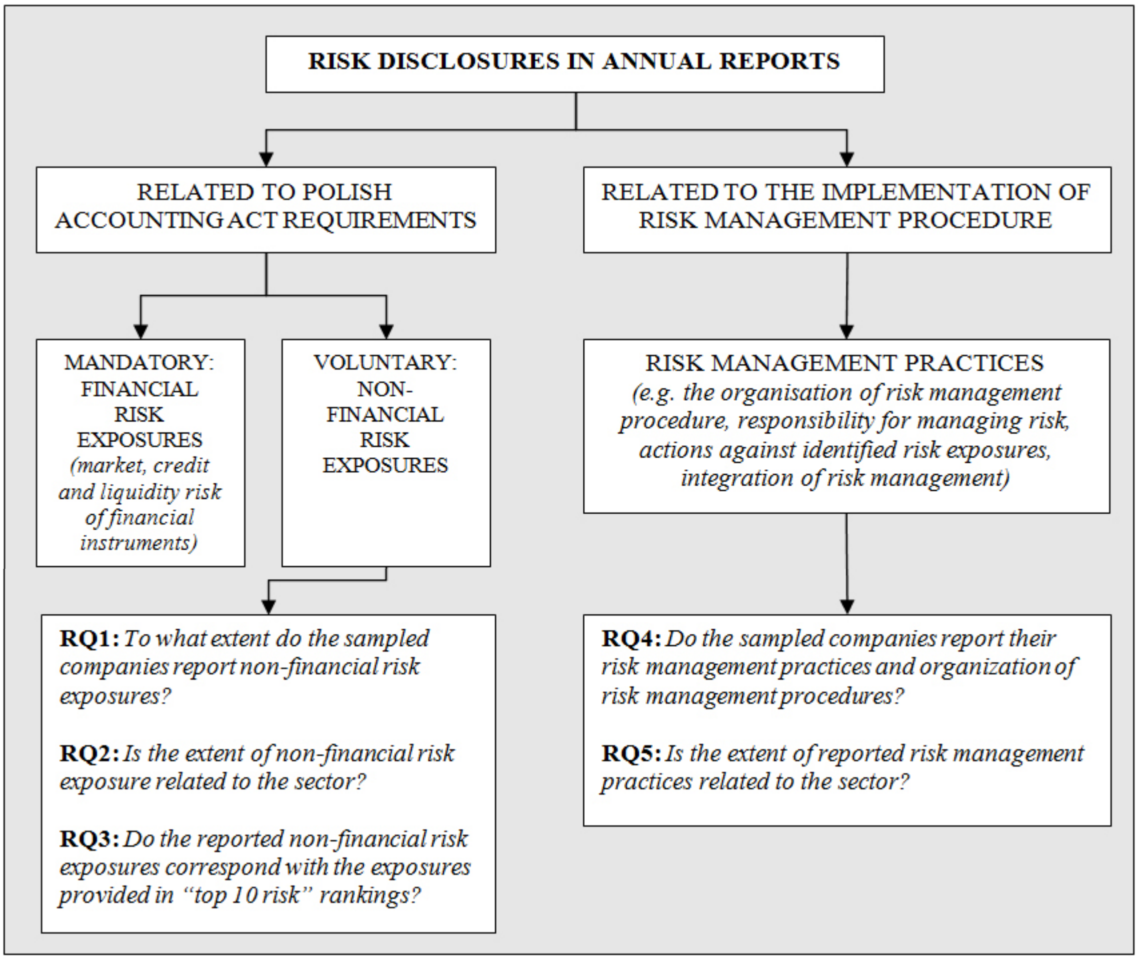


**Figure 1. Research framework within risk disclosures in annual reports**
*Source: Own study*

to the annual financial statement); in particular, the company should report events (recent or prospective) which may influence the continuity of its operations,

2) separately, as additional information, the risk connected with financial instruments; for publicly traded companies these requirements are more concrete (in accordance with international accounting standards) and require the description of the character and extent of risks related to financial instruments, together with the methods of managing the risk; in particular, a company is obliged to report credit risk, liquidity risk and market risk.

As the requirements related to financial risk reporting are broader, we treat it here as a part of mandatory risk reporting. The companies included in the sample are public companies, thus they report financial risk in accordance with the required categories of exposures (market, credit and liquidity risk). However, the information about other categories of risk (hereafter called non-financial risks) remains undefined and thus is perceived here as voluntary. We expect that in the examined sample of companies the differences in reporting non-financial risks, as well as the extent of such information, may differ visibly.

Another issue analysed in this study is the extent of risk reporting disclosures concerning the process of risk management.

Taking into account the above described issues, we pose several research questions, as presented in Fig.1. within the adopted research framework.

**Methods**

The research is based on the analysis of qualitative data. Many of the studies on risk reporting rely on the application of content analysis. The method was developed by (Holsti, 1969, Hsieh & Shannon, 2005; Krippendorf, 1980; Schreier, 2012; Weber, 1990) and is based on the extraction and further analysis of qualitative data (the number of sentences or words) related to the subject of the study. In many studies on risk reporting content analysis is usually related to counting the number of sentences or words as an analysis unit (Beattie, McInnes & Fearnley, 2004a; Bowman, 1984; Everaet, Bouten, Van Lidekerke, De Moor & Christiaens, 2007). However, in this study instead of counting sentences, we implement morphology analysis as a coding method. Morphology analysis was developed by Ritchey (2009) and in our study we apply this method with the intent to present the results in a readable way, and clearly identify answers to our research questions. Morphology analysis requires the definition of the criteria (parameters) and corresponding attributes (which reflect the possible outcomes), which is presented in Table 1.

**Table 1: Criteria and attributes of morphology analysis within the risk disclosures in annual reports of the sampled companies**

| Criteria | Attributes |
|---|---|
| **A.** Disclosures on non-financial risk exposures | **A1.** Not reported<br>**A2.** Reported up to 3 risk categories<br>**A3.** Reported 4 or more risk categories |
| **B.** The cohesion of non-financial risk exposures reported with "top 10 risk" rankings | **B1.** Low (up to 1 similar/corresponding risk exposure)<br>**B2.** Medium (1-3 similar/corresponding risk exposures)<br>**B3.** Considerable (4 or more corresponding risk exposures) |
| **C.** Disclosures on risk management practices | **C1.** The rules of risk management<br>**C2.** Organisation of risk management – the bodies responsible for risk management<br>**C3.** Indication of the adopted risk management framework<br>**C4.** Implemented risk management instruments<br>**C5.** Implemented techniques/methods of risk evaluation |

*Source: Own study*

## Findings and discussion

**Non-financial risk disclosure**

The results of content and morphology analysis within the disclosures of non-financial risk are presented in Table 2. The data indicates that 6 out of 9 analysed companies reported at least 4 categories of non-financial risk exposures; 3 out of 9 companies reported 3 or less categories of non-financial risk exposures. As a consequence, the extent of disclosures of non-financial risk exposure (RQ1) was assessed as satisfactory. The details of the information provided in the companies' annual reports on non-financial risk exposure are provided in Annex 2. In general, the analysed companies provide quite a wide range of voluntary information within their non-financial risk exposures.

Furthermore, the data provided in Table 2 indicates that in the analysed sample of companies there is no evident relationship between the extent of reported non-financial risk exposures and the sector (RQ2). In each of the distinguished sectors, 1 out of 3 companies reported 3 or fewer non-financial risk exposures, whereas 2 companies reported 4 or more non-financial risk exposures.

**Tabela 2: Disclosures on non-financial risk exposures**

| Sector | No. | Company | A1 Not reported | A2 Reported up to 3 risk categories | A3 Reported 4 or more risk categories |
|---|---|---|---|---|---|
| **Fuel & Gas** | 1 | PKN Orlen | 0 | 1 | 0 |
| | 2 | Lotos | 0 | 0 | 1 |
| | 3 | PGNiG | 0 | 0 | 1 |
| | | ***Sector in total:*** | ***0*** | ***1*** | ***2*** |
| **Raw materials** | 4 | KGHM | 0 | 1 | 0 |
| | 5 | LWB | 0 | 0 | 1 |
| | 6 | JSW | 0 | 0 | 1 |
| | | ***Sector in total:*** | ***0*** | ***1*** | ***2*** |
| **Trade** | 7 | CCC | 0 | 0 | 1 |
| | 8 | Eurocash | 0 | 0 | 1 |
| | 9 | LPP | 0 | 1 | 0 |
| | | ***Sector in total:*** | ***0*** | ***1*** | ***2*** |
| | | **All sectors in total:** | **0** | **3** | **6** |

*where: "0" – absence of variables, "1" – presence of variables*

*Source: Data provided in Annex 2*

**Cohesion of risk disclosures on non-financial risk with those identified in "top 10 risk" rankings**

For the purpose of this study, we closely analysed four "top 10 risk" rankings. The risk rankings assumed here differ within the categories (exposures) of risk included, as well as within the risks considered as most threatening/compelling. However, such differences are obvious and are connected with the methodology of a given risk ranking construction. The comparison of risk categories and their ranks, as provided in the "top 10 risks" rankings assumed in this study, is presented in Annex 3. Two of these rankings are based on survey results in which the companies themselves were asked to identify the top risks related to their performance (EY, 2014 and AON, 2013 risk rankings).

The risk ranking by Allianz (2014) is constructed with regard to the views and opinions of experts who identified top risk exposures from a company's perspective (bearing both large and small risks in mind). Similarly, the ranking by the World Economic Forum [WEF] (2014), was prepared with the recognition of expert views and opinions. However, in this risk ranking a global perspective was adopted.

For the purpose of this study, we listed risk exposures that appeared in the "top 10 risk" rankings by AON, EY and Allianz, as these rankings are based on the point of view of companies. In some cases we combined certain risk exposures, if the nature of their impact on a company was similar. Furthermore, we compared these categories with

non-financial risk disclosures of the examined sample of companies.
The results, provided in Table 3, reveal to what extent the reported non-financial risk exposures correspond with the exposures provided in the "top 10 risk" rankings (RQ3). We do not rank these risks, as in many cases they reflect a combination of risk categories included in the original risk rankings. Risk-disclosure analysis in this context is provided in detail in Annex 3.

The results provided in Table 3 indicate that for 6 out of 9 analysed companies the non-financial risk disclosures are moderately coherent with those indicated in the "top 10 risk" rankings. The number of coherent exposures is not related to the company's sector. Taking into account the details provided in Annex 3, most of the analysed companies indicated exposures related to macro-economic conditions, which is understandable when considering the impact of the latest global financial crisis. Additionally, 5 out of 9 companies indicated risk related to the continuity of their operations (e.g. business continuity, business interruption, deliveries etc.).

**Table 3. The cohesion of non-financial risk exposures reported with "top 10 risk" rankings**

| Sector | No. | Company | B1 Low (up to 1 corresponding risk exposure) | B2 Medium (1-3 corresponding risk exposures) | B3 Considerable (4 or more corresponding risk exposures) |
|---|---|---|---|---|---|
| Fuel & Gas | 1 | PKN Orlen | 0 | 1 | 0 |
| | 2 | Lotos | 0 | 0 | 1 |
| | 3 | PGNiG | 0 | 1 | 0 |
| | | ***Sector in total:*** | ***0*** | ***2*** | ***1*** |
| Raw materials | 4 | KGHM | 1 | 0 | 0 |
| | 5 | LWB | 0 | 1 | 0 |
| | 6 | JSW | 0 | 1 | 0 |
| | | ***Sector in total:*** | ***1*** | ***2*** | ***0*** |
| Trade | 7 | CCC | 0 | 1 | 0 |
| | 8 | Eurocash | 0 | 0 | 1 |
| | 9 | LPP | 0 | 1 | 0 |
| | | ***Sector in total:*** | ***0*** | ***2*** | ***1*** |
| | | **All sectors in total:** | **1** | **6** | **2** |

*where: "0" – absence of variables, "1" – presence of variables*

*Source: Own study based on data provided in Annex 3*

**Disclosures on risk management practices**

The third area of examination within this study was the analysis of disclosures related to the practice of risk management in the sampled companies. In particular, we focused on analysing whether companies report such practices (RQ4) and if such information is related to the company's sector (RQ5). The results are provided in Table 4. The results provided in Table 4 indicate that the majority of the analysed companies clearly report their risk management practices. The extent of the information provided in many cases is very broad (the details are provided in Annex 4).

Companies report on the organisation of the risk management process, the bodies responsible for its implementation, as well as on the adopted risk management techniques and instruments used, often in relation to a given risk. In some cases the link with financial risk is clearly visible; however, many companies report on practices related to non-financial risk exposures.

Regarding the relation of the extent of reported risk management practices and the sector, it was observed that companies from the trading sector report risk management practices narrowly, as compared to the gas & fuel sector and raw material sector. Moreover, even if a given attribute (C1 to C5) is reported, the information is minimal (sometimes just a phrase), as compared to a lengthy description of actions carried out in the remaining two sectors.

**Table 4. Disclosures on risk management practices**

| Sector | No. | Company | C1 Rules of risk management | C2 Organisation of risk management | C3 Adopted risk management framework | C4 Risk management instruments | C5 Techniques/ methods of risk evaluation |
|---|---|---|---|---|---|---|---|
| Fuel & Gas | 1 | PKN Orlen | 1 | 1 | 1 | 1 | 1 |
| | 2 | Lotos | 1 | 1 | 1 | 1 | 1 |
| | 3 | PGNiG | 1 | 1 | 1 | 1 | 1 |
| | | ***Sector in total:*** | ***3*** | ***3*** | ***3*** | ***3*** | ***3*** |
| Raw materials | 4 | KGHM | 1 | 1 | 1 | 1 | 1 |
| | 5 | LWB | 1 | 1 | 1 | 1 | 1 |
| | 6 | JSW | 1 | 1 | 1 | 1 | 1 |
| | | ***Sector in total:*** | ***3*** | ***3*** | ***3*** | ***3*** | ***3*** |
| Trade | 7 | CCC | 0 | 0 | 0 | 0 | 0 |
| | 8 | Eurocash | 1 | 1 | 0 | 1 | 1 |
| | 9 | LPP | 0 | 0 | 0 | 1 | 1 |
| | | ***Sector in total:*** | ***1*** | ***1*** | ***0*** | ***2*** | ***2*** |
| | | **All sectors in total:** | **7** | **7** | **6** | **8** | **8** |

*where: "0" – absence of variables, "1" – presence of variables*

*Source: Own study based on data provided in Annex 4*

## Conclusions

The extent and content of voluntary risk disclosures seems to be interconnected with the implemented risk management procedures. Such procedures require the identification of various risk exposures, together with the preparation of various instruments and methods of managing risks. It constitutes a relevant source of information which may be used further in reporting risks in annual reports. However, as proven by this study, the final extent and content of risk disclosures in annual reports depends on a company's attitude to risk reporting.

Our research revealed that the extent and content of voluntary risk reporting in annual reports of the examined sample of Polish public companies varies in some aspects. Accordingly, it can be assumed that the companies analysed represent different practices in the context of risk disclosures. Most visible differences were noticed in the context of reporting the activities within the risk management process. Companies within the trading sector report far fewer activities as compared to the fuel and gas sector or raw material sector, where the reports covered disclosures related to every aspect of the implemented risk management process.

However, the disclosures on non-financial risk exposures and their cohesion with the "top 10 risk" rankings is similar in each of the analysed sectors.

The results of our study represent the practices of some of the largest Polish companies. Assuming that Poland is still an emerging market, with a relatively short history of having a functioning market economy, the broad extent of risk disclosure in two sectors (the fuel and gas sector and raw materials sector) provides an interesting code of risk reporting practice which may be followed by others. It is even more important when regarding voluntary risk reporting, which is currently beyond standardization for non-financial companies.

This represents an interesting field for further research in this topic. In particular, there are still relevant questions about the issues relevant to voluntary risk disclosures, such as the elements that should be included in the code of best practice or recommended standards. Furthermore, it would be insightful to review the practice of voluntary risk disclosures in an international context, as well as on a national level with a larger sample of non-financial companies.

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## Annex 1. Basic Characteristics of Sampled Companies

| PANEL A – FUEL & GAS | | | |
|---|---|---|---|
| **Company** | **PKN Orlen** | **Lotos** | **PGNiG** |
| Activities | Polski Koncern Naftowy Orlen; one of Central Europe's largest refiners of crude oil; a specialist in processing crude oil into world-class unleaded petrol, diesel, heating oil, aviation fuel, plastics and other petroleum related products | The only Polish firm involved in oil extraction in the Baltic Sea; an oil company engaged in the business of the production and processing of crude oil, as well as wholesale and retail sale of high quality petroleum products including unleaded gasoline, diesel oil, diesel oil for heating purposes, aviation fuel and heavy fuel oil, lubricating oils and bitumens | Polskie Górnictwo Naftowe i Gazownictwo; the largest Polish oil and gas exploration and production company; the largest importer of natural gas to Poland; a leader in natural gas segments in Poland: trade, distribution, oil and gas exploration and production, gas storage and processing |
| Employment (2011) | 4445 | 1 309 | 8 991 |
| Assets (2013) | 51 644 PLN mm | 20 299 | 47 144 |
| Sales (2013) | 113 853 PLN mm | 28 597 | 32 120 |
| Net profit (2013) | 176 PLN mm | 39 | 1 918 |
| **PANEL B – RAW MATERIALS** | | | |
| **Company** | **KGHM** | **LWB** | **JSW** |
| Activities | A global producer of copper and silver with over 50 years of experience and assets located in three continents; owner of one of the largest copper deposits in the world; its offer includes gold, lead, rhenium and cathodes | Lubelski Węgiel „Bogdanka" S.A. ; one of the leaders in the hard coal market in Poland; supplier of coal for the generation of electric and thermal energy as well as for cement production | Jastrzębska Spółka Węglowa S.A.; the largest producer of high quality type 35 (hard) coking coal; a significant coke and steam coal producer in the European Union |
| Employment (2011) | 18 615 | 4 184 | 27 000 |
| Assets (2013) | 34 465 PLN mm | 3 844 PLN mm | 13 862 PLN mm |
| Sales (2013) | 24 110 PLN mm | 1 899 PLN mm | 7 632 PLN mm |
| Net profit (2013) | 3 035 PLN mm | 329 PLN mm | 77 PLN mm |
| **PANEL C – TRADE** | | | |
| **Company** | **CCC** | **Eurocash** | **LPP** |
| Activities | One of the biggest manufacturers in Poland; the market leader in Polish footwear retail; their collections of shoes and bags are available in over 700 outlets under the brands CCC, Boti and Lasocki | The leading wholesale distributor of fast moving consumer goods (FMCG) in Poland | One of the fastest developing fashion retailers in the world. An international chain managing a portfolio of 5 recognizable fashion brands: Reserved, Cropp, Sinsay, House, Mohito |
| Employment (2011) | 5 123 | 3 994 | 562 |
| Assets (2013) | 1 119 PLN mm | 4 825 PLN mm | 2 491 PLN mm |
| Sales (2013) | 1 643 PLN mm | 16 537 PLN mm | 4 116 PLN mm |
| Net profit (2013) | 125 PLN mm | 221 PLN mm | 430 PLN mm |

*Source: Own study based on: www.orlen.pl, www.lotos.pl, www.pgnig.pl, www.kghm.pl, www.lwb.com.pl, www.jsw.pl, www.ccc.eu, www.eurocash.pl, www.lppsa.com*

## Annex 2. Disclosures on financial and non-financial risk exposures in the analysed companies

| Sector | No. | Company | Non-financial risk exposures |
|---|---|---|---|
| Fuel & Gas | 1. | PKN Orlen | Branch risk (includes environmental risk) |
| | 2. | Lotos | Political, legal regulations, exploration and mining, social, trade, financial, operating (in connection with refineries)<br>*Disclosures included in Management Board Report (as a part of annual financial statement)* |
| | 3. | PGNiG | Regulation risk, exploration and mining risk, trade and storage risk, distribution risk, production risk<br>*Disclosures included in Management Board Report (as a part of annual financial statement)* |
| Raw materials | 4. | KGHM | Risk of climate policy change |
| | 5. | LWB | Risk of socio-economic conditions, environmental risk, operating risk, legal regulations risk (with further exposures in detail), |
| | 6. | JSW | Risk of socio-economic conditions, market risk, operating risk, insurance risk, environmental risk, legal regulations risk |
| Trade | 7. | CCC | Risk of economic climate, seasoning in sale, weather risk, tendencies in fashion, risk of wrong localisation of sales points)<br>*Disclosures included in Management Board Report (as a part of annual financial statement)* |
| | 8. | Eurocash | Macro-economic climate change, distribution risk, competition risk, internal information systems failure, risk of deliveries, investment risk |
| | 9. | LPP | Macro-economic climate change, exchange rates volatility, fashion |

*Source: Own study based on disclosures in annual reports for 2013 of the sampled companies*

## Annex 3. Disclosures on non-financial risk exposures in sampled companies vs. risks included in AON (2013), EY(2013) and Allianz (2013) "top 10 risk" rankings

| Non-financial risk exposure (description) | Fuel & Gas | | | Raw materials | | | Trade | | | In total |
|---|---|---|---|---|---|---|---|---|---|---|
| | PKN Orlen | Lotos | PGNiG | KGHM | JSW | LWB | CCC | Eurocash | LPP | |
| Economic slowdown/slow recovery (Macroeconomic risks - weaker or more volatile world growth outlook, stagnation or crisis) | X | | | | X | X | X | X | X | 6 |
| Cash flow/liquidity risk (as related to continuity of the company's operations, including business interruption risk) | X | X | X | | X | X | | | | 5 |
| Regulatory/legislative changes | | X | X | | X | X | | | | 4 |
| Failure to innovate/meet customer needs | | | | | | | X | X | X | 3 |
| Natural catastrophes (for example, storms, floods, earthquakes); natural phenomena (weather conditions) | | X | X | | | | X | | | 3 |
| Intensified competition Including cost cutting and profit pressure | | | | | | | | X | | 1 |
| Political risk/uncertainties, including expansion of the government's role; impacts of fiscal austerity or sovereign debt crises, political shocks | | X | | | | | | | | 1 |
| Cyber crime, IT failures, espionage | | | | | | | | X | | 1 |
| Loss of reputation or brand value | | | | | | | | | | 0 |
| Failure to attract or retain top talent; managing talent shortages | | | | | | | | | | 0 |
| Emerging technologies | | | | | | | | | | 0 |
| Theft, fraud, corruption | | | | | | | | | | 0 |
| **In total** | 2 | 4 | 3 | 0 | 3 | 3 | 3 | 4 | 2 | 24 |

*Source: Own study based on disclosures in annual reports for 2013 of the sampled companies*

## Annex 4. Disclosures on risk management practices in sampled companies annual statements

| PANEL A – FUEL & GAS | | | |
|---|---|---|---|
| **Criteria/Company** | **PKN Orlen** | **Lotos** | **PGNiG** |
| **Rules and goals of risk management** | Corporate risk management procedures,<br>The goal of risk management provided for each identified risk exposure | Strategy of risk management related to exchange rate risk and CO2 emission allowance<br>Goal of risk management provided for each identified risk exposure | Financial risk management policy, procedures of managing liquidity and market risk<br>Goal of risk management provided for each identified risk exposure |
| **Organisation of risk management (the responsible bodies)** | Financial Risk Committee<br>Management Board<br>Supervisory Board | Financial Risk Management Bureau<br>The Committee of pricing and trading risk | Financial Risk Management Committee |
| **Adopted risk management framework** | Scheme of the risk management procedure<br>The procedure is verified twice a year<br>In accordance with ERM | ERM, based on COSOII and ISO31100 | Defined steps: identification, evaluation, monitoring and reduction of risk exposures<br>2 risk management models: (1) centralised - for the whole group (2) coordinated – control of risk management by each group member |
| **Risk management instruments** | Reserves (environmental and operating risk)<br>Derivatives<br>Insurance | Derivatives (exchange rate, CO2 emission allowance)<br>Insurance | Derivatives (exchange rates, interest rates, commodity derivatives)<br>Programs of short term debt securities issuance for liquidity safeguarding<br>Reserves (for environmental costs) |
| **Risk evaluation (techniques and methods)** | Sensitivity analysis | Sensitivity analysis | Sensitivity analysis<br>VaR<br>Cash flow predictions |
| **PANEL B – RAW MATERIALS** | | | |
| **Criteria/Company** | **KGHM** | **JSW** | **LWB** |
| **Rules and goals of risk management** | Policies of managing financial and corporate risk<br>Goal of risk management defined, integrated approach | Policy of managing exchange risk<br>Goal of risk management provided for each identified risk exposure | General program of risk management, based on ERM<br>Goal of risk management provided for each identified risk exposure |
| **Organisation of risk management (the responsible bodies)** | Management Board<br>Risk Committees (for corporate risk, credit risk and market risk) | Management Board<br>Consultation Committee<br>Committee of Exchange Risk | Management Board<br>Corporate Risk Management Committee |
| **Adopted risk management framework** | Identification, Evaluation, Actions (reduction of the impact of risk)<br>In accordance with COSO I and COSO II, ISO 31000:2012 | Identification, Evaluation, Actions (reduction of the impact of risk) | Description of the adopted ERM risk management framework |
| **Risk management instruments** | Derivatives<br>Insurance | Derivatives | Reserves<br>Derivatives<br>Insurance |
| **Risk evaluation (techniques and methods)** | Scenario analysis, stress-testing, back-testing, EaR, Sensitivity analysis | Sensitivity analysis | Sensitivity analysis |

| PANEL C – TRADE | | | |
|---|---|---|---|
| **Criteria/Company** | **CCC** | **Eurocash** | **LPP** |
| **Rules and goals of risk management** | n.a. | Risk management policy | n.a. |
| **Organisation of risk management (the responsible bodies)** | n.a. | Special team for risk management issues | n.a. |
| **Adopted risk management framework** | n.a. | n.a. | n.a. |
| **Risk management instruments** | n.a. | Derivatives | Insurance |
| **Risk evaluation (techniques and methods)** | n.a. | Sensitivity analysis, cash flow projections | Sensitivity analysis |

*where: n.a. – not available*

*Source: Own study based on disclosures in annual reports for 2013 of the sampled companies*