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Disclosure of information on increasing and decreasing the balance of reserves in financial statements by companies listed on the Warsaw Stock Exchange

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Abstract: The purpose of this paper is to verify whether companies listed on the Warsaw Stock Exchange disclose less information about reserves in their financial statements in case of a reduction in reserves than in case of an increase in reserves. It has been hypothesized that in the case of a reduction in reserves balance, disclosures are less detailed than in the case of an increase in them. This hypothesis was verified through an analysis of information reported in the financial statements of 148 companies listed on the Warsaw Stock Exchange for the years 2007–2014: in total, the analyzed data comes from 1184 financial statements. Within the research, a three-step index of disclosures detail of the two leading reserve categories is constructed and followed with a comparison of the values of disclosure indexes and the fact that reserves were reduced and increased. The research methodology included literature studies and empirical studies using the author's index of disclosure detail and statistical testing. The conducted research extends the cognitive legacy of mainstream research into the quality of financial statements disclosures and in the principal-agent problem.

Keywords: reserves, disclosure of information, financial reporting, financial result, earnings management

1. Introduction

Information provided by accounting is an important determinant of investor decisions. Nonetheless, incorrect or unclear information provided by the accounting system can lead to inefficient resource placement (Bleck and Liu, 2007). As many authors have demonstrated (Ascioglu et al., 2012), the quality of financial statements depends on the liquidity and stability of financial markets, whereas securities prices react strongly to information about financial results that is provided by the accounting system.

Meanwhile, there is a danger that false information will be delivered to the financial market. This is because financial statements may be subject to manipulation. The final ac-

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counting product—financial statements—is one of the most important elements of ownership supervision and the main source of information regarding the financial situation of a company. Unfortunately, the quality assessment of reporting information is exceedingly difficult to conduct, as information is only an "abstract model of reality" (however, it can be assumed that high-quality information shall be equal to the reliable reflection of economic reality (Jurewicz and Walińska, 2008, p. 107).

Meeting the overarching objective of accounting, i.e. quantification of the economic life and portrayal of entity's activities in the most faithful way, requires accounting to be based on general principles and an area of freedom (Staszel, 2019), which enable the choice of the solution closest to economic reality, rather than one that is based on strict regulations, orders and prohibitions. Unfortunately, this area of freedom in accounting that accountants are awarded to capture the economic reality—in a manner tailored to each entity—as accurately as possible in the financial statements, may be used for the wrong purpose, i.e. to manipulate the reporting data and thus the decisions of the users of said data. Research carried out by many authors (Pfaff, 2007) indicates that the areas most prone to errors and irregularities in listed companies are issues connected, e.g. with employee benefits and reserves. Other studies (Andrzejewski and Mazurczak, 2011, p. 244) showed that the most common related reasons for financial statements being revised include the lack of reserves for retirement benefits. E. Peek (2004) also points out that reserves are a key item of the financial statements and should be carefully reviewed by auditors. Micherda (2009, p. 138) highlights that in terms of value measurement in accounting, special attention should be paid to two areas, one of which is the creation and release of reserves.

The subject of the research work, partially described in this paper, are reserves that belong to a category in which, according to numerous authors, the risk of lack of credibility is high. Valuation procedures of both reserves and impairment write-offs permit subjective parameters, so that the picture of an entity, as concluded from the financial statement, can be largely different from reality.

The effects of increasing or reducing reserves, with only a few exceptions, directly change an entity's financial result, and as most of the reserves are treated as estimates, this is a category that can be successfully used for discretionary profit management. Taking that into account, the decision was made to investigate whether or not the entities restrict the disclosure in financial statements (i.e. because the reserves balance is reduced, they provide fewer data in the supplementary information and explanations than in the case of increasing the reserves balance) when those entities reduce reserves balance (perhaps intentionally to increase the reported financial result). If the hypothesis is confirmed that the disclosure contains less detail (as measured by the disclosures' detail index) in the case of decreasing reserves balance, then this would imply that entities purposefully "conceal" the data in the case of decreasing reserves balance. This could indicate a discretionary and intentional reduction of the reserves balance.

The research aimed to verify if the quality of disclosed information depends on whether entities reduce or increase reserves. Two hypotheses were formulated: Hypothesis 1: when the size of the retirement reserve is reduced, the detail of disclosure measured in terms of the detail of the disclosure index is lower than in the event of an increase in the size of the reserves. Hypothesis 2: when other reserves are reduced, the detail of disclosure of these reserves is lower than in the event of an increase in the size of reserves.

The hypotheses were verified through an analysis of information retrieved from 1184 financial statements of 148 companies listed on the Warsaw Stock Exchange covering 2007–2014. The research method involved literature review and empirical studies employing the author's proprietary disclosure detail index and statistical testing: use was made of the T-test for the mean.

2. Literature review

The research into reserves focuses primarily on the ability to discretionarily shape financial result through this category. It is worth noting that procedures such as income smoothing, big bath or cookie jar reserves are based on appropriate manipulation of the size of reserves, as the effects of increasing or decreasing the reserves balance, with a few exceptions only, directly change the entity's financial result, and as most of the reserves are treated as estimates, this is a category that can be successfully used for discretionary profit management.

The analysis carried out by many Polish authors demonstrates that the share of reserves in the total balance sheet of the analyzed business entities does not exceed 5%, yet this practice provides an effective tool used for manipulating the financial result. The authors found a correlation between the creation/ release of reserves and the financial result/ financial ratios, including ROE. Research conducted by Polish authors also shows that entities are prone to creating excessive reserves which are later used (released) to create a financial result that is higher than it actually is. A summary statement of the main research on reserves conducted by Polish authors is presented in Table 1.

Table 1. The summary of the results of the research on the reserves' category conducted in Poland

Authors of the research and research sample	Main findings of the research
Chraścina, 2015, 263 companies listed on the Warsaw Stock Exchange, 2010–2013	– The level of reserves disclosed in the financial statement depends, among other factors, on audit quality. – Reserves provide a tool for shaping financial results (*earnings management*) in order to smoothen the financial result, apply "big bath" strategies, avoid reporting on a decline in the financial result and avoid reporting on a small loss.
Duraj, 2005, 237 companies listed on the WSA	The research found no link between the increase in dividend payments and the reduction in reserves for long-term liabilities.
Walińska, Bęk-Gaik, 2012, 14 companies with the WIG 20, 2007–2010	– Reserves can provide a tool for discretionary creation of the financial result.

Source: Author's own elaboration based on the literature cited in the table.

Many Polish authors that used the reserve category as the subject of their research were interested in its possible use for discretionary profit management. In most cases, the hypothesis that reserves provide a profit management tool has been confirmed. Little of the research focused on the quality (detail) aspect of the information disclosed in financial statements.

Abroad, research into reserve categories is conducted on a large scale, which also includes the aspect of the ability to shape financial results through reserves. Table 2 consists of aggregate information about the main global research into reserves.

Table 2. The summary of the results of global research into reserves

Researcher and subject of the research	Conclusions and observations drawn by the research authors
Peek, 2004, Financial statements of Dutch companies for the years 1989–2000	– Reserves are used to shape profits. – Entities report large reserves to smoothen current profits.
Cohen, Darrough, Huang, Zach, 2011, Reserves for warranty repairs were examined in a group of 800 companies	– Reserves for warranty repair can serve managers as a tool shaping financial results.
Abou-El-Sood, 2012, The research covered statements of 878 U.S. commercial banks for the years 2001 to 2009	– Loss reserves provide a tool used for smoothing banks' financial results. – During the crisis, banks lowered the reserves level to report a higher financial result.

Source: Author's own elaboration based on the literature cited in the table.

Research conducted in Poland, as well as worldwide, shows that companies can shape the image of the financial and economic situation using reserves which are an estimative category (Poniatowska, 2013). Reserves can be successfully used for shaping the financial result to smoothen it, apply a "big bath" strategy, avoid reporting on a small loss, avoid reporting on a decline in the financial result (Chraścina, 2015). Manipulating financial reporting by means of reserves is possible because their value is determined by estimation and they directly affect the financial result. Manipulating financial results is possible by the following means: avoiding creating or undervaluing reserves, creation of excessive or overvalued reserves, concealment of real reserves under the category of contingent liabilities, or even release of reserves despite the absence of circumstances that could justify such a release, etc. For instance, research conducted by Hołda and Staszel (2019) shows that even a small change of only 1% in the assumptions used to estimate the discount rate (estimated with the use of the CAPM or WACC model) results in a 1% change in the discount rate. The research also found that a change of merely 1% in the discount could result in a significant change in the reserves balance, i.e. it may distort the reporting information.

The latest international research indicates that reserves are one of the most frequently manipulated areas of financial reporting. Summary results of the latest research are presented below and include the following finding:

1) In the USA, the factors behind the decision to engage in manipulation and the related consequential appointments of the CEO were analyzed by Cheng, Cummins and Lin (2021).
2) Factors which underlie the creation of too low reserves and the consequential disclosure of inflated profit are of social and psychological character, e.g. chairpersons' overconfidence (Berry-Stölzle, Eastman and Xu, 2018).

3) It was pointed out that the implementation of the Sarbanes–Oxley (SOX) Act in 2002 did not contribute to the reduction of risk of erroneous estimation of reserves (Ma and Pope, 2020).
4) In Poland multiple studies confirmed profit manipulation involving reserves and accruals (Comporek, 2018).

The above studies indicate that this area and research into it play an important role in today's economy and processes taking place in it. The research focused on the impact of manipulation, e.g. in the field of reserves on the decisions of users of financial statements. However, the author did not come across research that would analyze the quality of disclosures regarding reserves, which makes the research presented in this paper highly original. As indicated by Schilit (2018), it is enhanced data transparency and a better quality of disclosures that may be a useful tool to use to reveal and prevent manipulation. It was also proved (Sangyong, Gene and Chia-Ling, 2018) that enhanced transparency is linked with a more cautious estimation of reserves, and enhanced transparency, in turn, is mandated by external regulations as entities are reluctant to disclose data on e.g. reserves of their own will.

The research is based on a detailed analysis of financial statements of selected companies whose shares are or were listed on the Warsaw Stock Exchange (the WSE). Due to its time-consuming nature, the empirical research of financial statements ran from January 2013 to March 2017, while the research sample was determined in June 2014. After the initial analysis of the financial statements of companies listed on the WSE, the companies were selected for further research as follow: all entities listed on WIG30 (30 companies in total), mMWIG40 (30 companies, the remaining 10 companies are also listed on WIG 30), SWIG80 and 160 companies that were randomly chosen and do not figure in WIG30, mMWIG40, SWIG80. The research period covers years from 2007 to 2014, i.e. eight years in total.

Of the initially selected pool of 300 companies, 152 could not be included in the research: for objective reasons. During the collection of empirical material in the form of financial statements of listed companies, it was noted that companies often did not file their financial statements for the year in which the basis for the preparation of financial statements changed from standards of the Accounting Act to IAS.

Ultimately, only those companies that made their full financial statements available on the Internet (i.e., with additional information) for all years from 2008 to 2014 were included in the sample. To collect data and initially process it an Excel spreadsheet was used. Statistical analysis was done in Statistica version 13.1. In conclusion, 148 companies were included in the research sample.

3. Results

Construction of the disclosures' detail index and disclosures' detail regarding reserves in the financial statements of the examined entities has been presented below.

Within the framework of research into the detail with which companies disclosed information on remaining reserves, a three-level scale of disclosure details was applied to the remaining reserves of this group:

Level (1):

– if an entity discloses the overall amount of remaining reserves on its balance sheet but does not present any additional notes specifying the reserve position;
– if the explanatory note to the liabilities indicates an entity holds remaining reserves among its liabilities but does not specify what those reserves relate to;
– if there is an explanatory note to the "remaining reserves" item, however, it contains information only on the value of the released or newly created reserves: the entity discloses the initial state of the total remaining reserves, any prospective decreases or increases and the final state, however, it does not disclose exactly what the remaining reserves relate to and for what purpose they were created;

Level (2):

– if there is an explanatory note in which the entity details what the remaining reserves relate to, e.g. states that the remaining reserves group relates to reserves for warranty repairs, employee leave and litigation. At this level of disclosure, an entity lists what is included in the remaining reserves category but does not specify the exact amounts of each reserves category or provide detailed amounts of each type of the remaining reserves, however, at the same level, it does not provide any information on changes in reserves (what part of reserves was released, used, created);
– if the entity indicates the exact reserves categories that are included in the remaining reserve categories and specifies in the total amount the initial reserves balance, its increase and decrease (incl. a break-down of reserves into released and used) as well as the final balance of the total remaining reserves, however, it does not specify which increases and decreases related to which reserve categories;

Level (3):

– if the entity indicates for each reserves type held (e.g. for warranty repairs, leaves, compensations), their initial amount, increase, decrease and final state.

Table 3 provides the results of the analysis of the disclosed information details regarding the remaining reserves in the companies that had disclosed remaining reserves in a given year.

Table 3. Disclosure detail in the remaining reserve categories in each of the researched periods (percentage of statements with a given disclosure level)

Data/ year	The average for 2007 to 2014
The number of companies that show the remaining reserves (out of 148 examined)	On average, 117 companies disclosed the remaining reserves
Disclosure detail—Level (1)	11.9%
Disclosure detail—Level (2)	31.5%
Disclosure detail—Level (3)	56.6%

Source: Author's own elaboration based on the research data.

Analysis of the disclosed information detail regarding reserves compiled in Table 3 justifies the conclusion that the quality of disclosed information on the remaining reserves is satisfactory—on average, in more than half of the examined entities (56.6%), the detail of disclosed information on the remaining reserves reached the highest level: Level (3) (according to the proposed scale of the disclosure level). 31.5% of companies achieved disclosure level (2). In total, more than 88% of the examined entities disclosed detailed information about the type of reserves they held and how these reserves developed during the financial year—how much of the reserves was used, released and created. It was also confirmed that in 97% of the examined statements, the entities provided an additional note that explains the category of remaining reserves (with only a few cases where the explanatory note was merely a repetition of the total of the remaining reserves contained in the balance sheet).

Within the framework of research into the detail of the disclosed information on reserves held for retirement benefits by the examined companies, a six-step scale of disclosures' detail was applied in relation to these reserves:

Level (1):

– if an entity discloses the overall amount of remaining reserves on its balance sheet but does not present any additional note specifying the reserve position;
– if within the explanatory note to the liabilities item the entity reports among liabilities or even accruals the possession of the reserve for retirement, but does not, however, disclose any additional information on this reserve;

Level (2):

– if there is an explanatory note explaining the position of reserves for retirement benefits, however, it only contains information on the value of the released or newly created reserves: the entity presents the initial amount of these reserves, any prospective decreases or increases and the final state, however, it does not disclose exactly the purpose of reserve (severance pay, leaves, bonuses or others) or provides no assumptions used during the creation of the reserve;
– if there is an explanatory note in which the entity details what the reserves held for retirement benefits relate to (e.g. severance pay of various types, leaves, bonuses, allowances in kind, employee allowances for purchase of benefits and others). At this level of disclosure, an entity lists what is included in the reserves for retirement benefits category without providing the amounts of each of those categories, or specifying the amounts of each type of the remaining reserves, however, at this level, the entity does not provide any information on changes in reserves (what part of reserves was released, used, created);
– if an entity indicates the exact reserves categories that are included in the retirement benefits categories and provides in the total amount the initial reserves balance, its increase and decrease (including the division of reserves into released and used) as well as the final balance of the total remaining reserves, however, it does not specify which increases and decreases related to which reserve categories;

Level (3):

– if for each possessed type of reserves (e.g. for warranty repairs, leaves, compensations) the entity indicates its initial amount, increase, decrease and the final state, and it provides additional actuarial assumptions about the created reserves (e.g. the ratio of employees who decide to leave the company, mortality rate, discount rate, and other assumptions).

Table 4 provides the results of the analysis of the disclosures detail regarding retirement benefits in companies that indicated the possession of reserves for retirement benefits in a given year (not necessarily itemized as the reserves for retirement benefits, but also as accruals or remaining reserves).

Table 4. Disclosure of information detail regarding reserves for retirement benefits

Levels of the value of the disclosure index	The percent of companies that report reserves for retirement benefits (out of 148 examined). The average from 2007 to 2014
Disclosure detail—Level (1)	3%
Disclosure detail—Level (2)	47%
Disclosure detail—Level (3)	51%

S o u r c e: Author's own elaboration based on the research data.

A detailed analysis for 2007–2014 showed that level (2) disclosure detail decreased in subsequent years due to an increase in the number of level (3) disclosures, which may have been caused by the increasing number of statements compiled in accordance with IAS. The disclosure detail is high: half of the examined financial statements contained level (3) disclosures, i.e. the highest level.

Within the research, the main hypothesis states that in the case of a decrease in the reserves balance (resulting in an increase in the financial result due to the release of reserves), the disclosure detail is lower (measured by the index of disclosure detail) than in the case of an increase in the reserve balance. Partial hypotheses are concerned with the verification of two separate reserve categories: reserves for retirement benefits and remaining reserves.

The first hypothesis examines the reserves for retirement benefits. Table 5 compares the average values of the disclosure detail index (1, 2 or 3) depending on how the change in the reserve balance is being handled (taking into account situations where the reserve balance increases or decreases, excluding the very few situations where the reserve balance remains the same).

Table 5. Average levels of the value of the disclosure index in statements due to a decrease or increase in the reserve balance

Year	Change in the reserve balance	
	Decrease in the reserve balance	Increase in the reserve balance
2008	2.222222	2.197368
2009	2.246377	2.214286
2010	2.170732	2.304878
2011	2.250000	2.274725
2012	2.212766	2.367089
2013	2.285714	2.363636
2014	2.307692	2.352941

S o u r c e: Author's own elaboration based on the research data.

Table 5 shows that a higher value of disclosure index (higher disclosure detail) is more common in companies that increased their reserve balance in 2010–2014. In contrast, in the first two years covered by the research (2008–2009), a higher disclosure index occurred in the case of entities whose reserve balance for retirement benefits was reduced. Whether the observed differences between averages are statistically significant, can be determined through the T-test for independent samples. The author examined whether the average values of the disclosed reserve detail indexes for retirement benefits differ depending on whether a decrease or an increase in a particular reserve occurred (see the results in Table 6). The group of statements in which a decrease in reserve balance occurred is designated as Group I, whereas the group in which an increase in reserve balance was ascertained is designated as Group II.

Table 6. T-test results for the reserve disclosure indexes for retirement benefits according to whether an increase (Group II) or a decrease (Group I) of the reserve occurred

	Average for Group I	Average for Group II	t	f	p	N Valid for Group I	N Valid for Group II	std dev. Group I	std dev. Group II	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.197411	2.182948	0.381750	870	0.702740	309	563	0.499863	0.553469	1.225982	0.045536

S o u r c e: Author's own elaboration based on the research data.

The relationship in Table 6 shows that the variants for handling the change in the reserve balance (decrease or increase in reserve balance) do not appear to be a relevant differentiating factor of the disclosure quality index, i.e. the average levels of the disclosure index did not differ significantly regardless of whether the entities increased or decreased reserves' balance.

Subsequently, it was decided to perform the same separate test for statements prepared in accordance with the Accounting Act and IAS. The results are presented in Tables 7 and 8, respectively.

Table 7. T-test results for the reserve disclosure indexes for retirement benefits for an increase and decrease in the reserve disclosed in statements prepared in accordance with the Accounting Act (decrease in Group I, increase in Group II)

	Average for Group II	Average for Group I	t	f	p	N Valid for Group II	N Valid for Group I	std dev. Group II	std dev. Group I	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.013423	2.092308	-0.914317	212	0.361589	149	65	0.614977	0.491270	1.567031	0.043167

S o u r c e: Author's own elaboration based on the research data.

Table 8. T-test results for the reserve disclosure indexes for retirement benefits for an increase and decrease in the reserve disclosed in statements prepared in accordance with IAS (decrease Group I, increase Group II)

	Average for Group I	Average for Group II	t	f	p	N Valid for Group I	N Valid for Group II	std dev. Group I	std dev. Group II	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.243961	2.225410	0.450260	656	0.652672	414	244	0.516929	0.499392	1.071463	0.554190

S o u r c e: Author's own elaboration based on the research data.

The tests show that for statements prepared both in accordance with the Accounting Act and IAS, the disclosure detail regarding reserves for retirement benefits does not depend on whether the entities increase or decrease reserves.

Another partial hypothesis is concerned with the following: in the case of a decrease in the remaining reserve balance, the disclosure detail for these reserves is lower. Table 9 compares the average values of the disclosure index in accordance with how the change in reserves is handled. Table 10 shows the T-test results for average indexes of the disclosure level in the case of the increase and decrease in the remaining reserve balance.

Table 9. Average levels of the value of the remaining reserves disclosure index regarding the change in the remaining reserve balance

Year	Change in the reserves' balance	
	Decrease	Increase
2008	2.441860	2.453333
2009	2.567164	2.377358
2010	2.436364	2.476923
2011	2.584906	2.454545
2012	2.466667	2.466667
2013	2.393443	2.456140
2014	2.408163	2.468750

S o u r c e: Author's own elaboration based on the research data.

Whether the observed differences between the averages are statistically significant can be determined on the basis of the T-test for means.

Table 10. T-test results for the disclosure indexes of the remaining reserves according to whether an increase or decrease in reserves occurs (decrease in Group I, increase in Group II)

	Average for Group II	Average for Group I	t	f	p	N Valid for Group II	N Valid for Group I	std dev. Group II	std dev. Group I	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.384615	2.383378	0.024614	826	0.980369	455	373	0.723568	0.715002	1.024105	0.812414

S o u r c e: Author's own elaboration based on the research data.

The relationship in Table 10 shows that the variants for handling the remaining reserves (increase or decrease in their balance) do not appear to be a relevant differentiating factor of the disclosure quality index, i.e. the average levels of the disclosure index did not differ significantly regardless of whether the entities increased or decreased the remaining reserve balance. Tables 11 and 12 show the test results for statements which are divided into two groups: statements prepared in accordance with the Accounting Act and statements prepared in accordance with IAS.

Table 11. T-test results for the disclosure indexes of the remaining reserves according to whether an increase or decrease occurred in the reserve in statements prepared in accordance with IAS (decrease in Group I, increase in Group II)

	Average for Group II	Average for Group I	t	f	p	N Valid for Group II	N Valid for Group I	std dev. Group II	std dev. Group I	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.398281	2.393220	0.089787	642	0.928485	349	295	0.714463	0.710434	1.011375	0.922150

S o u r c e: Author's own elaboration based on the research data.

Table 12. T-test results for the disclosure indexes of the remaining reserves according to whether an increase or decrease occurred in the reserve statements prepared in accordance with the Accounting Act (decrease in Group I, increase in Group II)

	Average for Group II	Average for Group I	t	f	p	N Valid for Group II	N Valid for Group I	std dev. Group II	std dev. Group I	Quotient F Variance	P Variance
Decrease in reserve balance (Group I) vs increase in reserve balance (Group II)	2.339623	2.346154	–0.058647	182	0.953298	106	78	0.754501	0.735499	1.052339	0.819227

S o u r c e: Author's own elaboration based on the research data.

4. Discussion

In summary, although the disclosure quality differs between entities that prepare statements in accordance with the Accounting Act and IAS, statistical tests have shown that a decrease or increase in the reserve, whether it is the remaining reserve or the reserve for retirement benefits, is not a factor that differentiates the disclosure detail index: the quality of the disclosed information in regard to reserves does not depend on whether an entity creates reserves or releases/ uses them, either in statements that were prepared in accordance with the Accounting Act or in accordance with IAS. Thus, the hypothesis whereby entities decreasing their reserve balance reveal less information regarding these reserves has not been confirmed.

Author's analysis of the disclosure detail regarding created and released reserves or even of the disclosure of actuarial assumptions used for the estimation of reserve amounts leads to the conclusion that the detail of the disclosed data is statistically significant when it comes to the differences between the entities which prepare statements in accordance with IAS and the Accounting Act. However, despite those substantial differences in the levels of reporting (reporting detail), it was impossible to confirm the hypothesis that where the reserve balance is decreased (which affects the recognition of income) an entity discloses fewer data about reserves (in other words: less disclosure detail). This hypothesis has not been confirmed either in relation to the financial statements prepared in accordance with the Accounting Act or IAS, although, as indicated by other research carried out by A. Staszel (2020), the financial statements prepared in accordance with IAS reveal statistical correlations indicating that the decisions on changes in reserves' balance were discretionary.

5. Conclusion

The purpose of the research was to verify whether the detail of the disclosed information on reserves is conditioned by an entity decreasing or increasing the reserve balance. The obtained results are as follows:

Hypothesis: in the case of a reduction in the reserve balance for retirement benefits, the disclosure detail is lower (as measured by the disclosure detail index) than in the case of an increase in the reserve balance—it has not been confirmed in the group of statements prepared in accordance with the Accounting Act or those prepared in accordance with the IAS.

Hypothesis: in the case of a reduction in the remaining reserve balance, the disclosure detail regarding these reserves is lower—it has not been confirmed in the group of statements prepared in accordance with the Accounting Act or those prepared in accordance with the IAS.

Analysis of the obtained results shows that, although reserves provide a tool that could be used for manipulating financial reporting, the economic entities always disclose the same amount of reserve-related data, regardless of whether they decrease or increase the reserve balance or even potentially manipulate the size of the reserves. This fact may mean that the disclosures regarding reserves in the financial statements are insufficient to assess the reliability and credibility of the reporting information regarding reserves. Once more, the role of reliable and independent auditing needs to be emphasized: it is auditing that allows the attestation of the accounting system's data and seems to be the primary guarantor of the reliability of the reporting data (Staszel, 2020).

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Ujawnianie informacji o zwiększaniu i zmniejszaniu stanu rezerw w sprawozdaniach finansowych przez spółki notowane na Giełdzie Papierów Wartościowych w Warszawie

Abstrakt: Celem artykułu jest zweryfikowanie, czy spółki notowane na GPW w Warszawie w przypadku zmniejszania stanu rezerw ujawniają mniej informacji o rezerwach w swoich sprawozdaniach finansowych niż w przypadku zwiększania stanu rezerw. Sformułowano hipotezę, że w przypadku zmniejszeń stanu rezerw szczegółowość ujawnień jest niższa niż w przypadku zwiększania stanu rezerw. Hipoteza została zweryfikowana za pomocą analizy danych zawartych w sprawozdaniach finansowych 148 spółek notowanych na GPW w Warszawie za lata 2007–2014: łącznie przeanalizowano dane zawarte w 1184 sprawozdaniach finansowych. W ramach prowadzonych badań skonstruowano trójstopniowy wskaźnik szczegółowości ujawnień dwóch wiodących kategorii rezerw, a następnie porównano wartości wskaźników ujawnień z faktem zmniejszania i zwiększania rezerw. Metodologia badań obejmowała studia literaturowe oraz badania empiryczne z wykorzystaniem autorskiego wskaźnika szczegółowości ujawnień i testowania statystycznego. Przeprowadzone badania poszerzają dorobek poznawczy nurtu badań nad jakością ujawnień w sprawozdaniach finansowych oraz teorii agencji.

Słowa kluczowe: rezerwy, ujawnianie informacji, sprawozdawczość finansowa, wynik finansowy, zarządzanie zyskami