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Other Comprehensive Income (OCI) Influenced by the Covid-19 Pandemic – Illustrated with the Example of Entities Listed on the Warsaw Stock Exchange (GPW)

Piotr Prewysz-Kwinto
WSB University in Toruń
e-mail: piotr.kwinto@wsb.torun.pl
ORCID: 0000-0002-4151-7335

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Abstract: The Covid-19 pandemic is undoubtedly the event that has had the strongest impact on the economic activity of companies in the last two years and was reflected in their financial statements. The aim of the study was to verify whether the effects of the Covid-19 pandemic are visible in the area of other comprehensive income presented in the statement of comprehensive income. The study fits into a wider trend of research concerning financial information presented in this element of a financial statement, but in connection with the current subject of the Covid-19 pandemic. The study presents the results of the research on the OCI value in the statements of comprehensive income of the 91 largest entities listed on the Warsaw Stock Exchange. The comparative analysis covered data from the pandemic period (2020-2021) and the year before it (2019).

Keywords: other comprehensive income (OCI), financial statement, IFRS, pandemic, Covid-19.

1. Introduction

The appearance of a new type of coronavirus called SARS-CoV-2 at the end of 2019, its very dynamic spread that followed, and the announcement of a global pandemic by the World Health Organisation as early as in March 2020 are undoubtedly the events that have influenced the global economy in the last two years most significantly. The global lockdown, which lasted for some moths, by causing lower demand, breaking supply chains and considerable limitations in employees' availability has influenced the economic activity of enterprises and was reflected in their financial statements in an unprecedented way. Apart from the obvious decrease in income, numerous entities were forced to face a revaluation of elements of their assets and liabilities, recognise resulting differences, take into account reserves for contracts with delay damages and to verify the compliance with the rule of continuing activity influencing the method of presenting information in a financial statement.

The aim of the study was to verify whether the effects of the Covid-19 pandemic are visible in the area of other comprehensive income constituting an element of comprehensive income statement drawn up by entities using the International Financial Reporting Standards and based in Poland. The study fits into a wider trend of studies concerning financial information presented in this element of a financial statement but in connection with the Covid-19 pandemic.

To achieve this aim, empirical research was conducted in which information included in statements of comprehensive income of 91 entities listed on the Warsaw Stock Exchange and included in its main indices, i.e. the WIG20, mWIG40 and sWIG80, was analysed. The study covered the years 2019-2022, namely the two years of the Covid-19 pandemic (2020 and 2021) and the year directly before it (2019). In the quantitative analysis of the data the methods of descriptive statistics and significance tests were used. In the interpretation of the obtained results, the results of earlier studies conducted in this area were taken into consideration. This study consists of two parts. The first presents the most important theoretical aspects concerning OCI and empirical research conducted in this area. In the second part, the results of the conducted empirical research are described.

2. Other comprehensive income – theoretical aspects

Other Comprehensive Income (OCI) constitutes the other significant part of the statement of comprehensive income. It was introduced into the solutions of the International Financial Reporting Standards in 2008 as a result of changing IAS 1 allowing establishing a new level of income, i.e. Comprehensive Income (CI) (Prewysz-Kwinto, 2020a, p. 510). The new report is the result of a long-running discussion concerning the place of presentation of equity changes, which, however, does not concern transactions with shareholders, but result from the changes of value of elements of assets and liabilities valued in fair value that occurred when their value is recalculated at the balance sheet date.[1] Those changes are defined as OCI. In the new report, they alter the net result of an entity, which is the effect of actual transactions, with the results of the valuation of the elements of assets and liabilities resulting from the accepted accounting policy (Rówińska, 2019, p. 213). Therefore, the statement of comprehensive income combines an evaluation in historical cost,

[1] The discussion concerned two alternative concepts: i.e. clean surplus, in which all changes in equity not resulting from transactions with shareholders must be included in an entity's results and dirty surplus, in which including changes of the elements of net assets is allowed not in the result, but in equity balance. More in: (Bek-Gaik, 2013, p. 23; Szychta, 2012).

included in the net result, with the results of the more and more widely used evaluation in fair value included in other comprehensive income (Bek-Gaik, 2013, p. 21). Although OCI reflects an evaluation of still unexecuted transactions – and therefore only possible to achieve financial effects established according to actual values at the balance sheet date – it is emphasised in the literature that comprehensive income, when they are included, better manifests the abilities of an entity to generate profits in the future (Kanagaretman, Mathieu, & Shehata, 2009, p. 352), and also measures the value creation process better and allows forecasting the ability of a company to generate cash and its equivalents (Marchini & D'Este, 2015, p. 1725).

Buk defines OCI as revenue and expenses (including reclassification adjustments) which were not included in the result (as gains or losses) as required or permitted by other IAS/IFRSs, including among others IAS 16 and 38 regarding the evaluation of property, plant and equipment and intangible assets, IAS 19 regarding the results of evaluation of specific employee benefits, IAS 21 regarding the results of the translation of financial statements of entities operating abroad, or IFRS 9 regarding the evaluation of financial instruments (debt and equity) and cash flow hedges (Buk, 2013, p. 63). Other comprehensive income involves therefore those results over which the entity's management has little control and whose value depends mainly on external conditions that affect its operation.

Since it was introduced, the statement of other comprehensive income has remained the object of extensive empirical research. It focuses on the one hand on the way of presenting information in this element of a financial report, since IAS 1 provides a considerable amount of freedom in this respect, and on the other, on the usefulness of the information concerning comprehensive income and other comprehensive income for decisions made by investors and the evaluation of the financial situation of an entity. In Europe, empirical research was conducted by, among others: Ferraro (2011), Agostini and Marcon (2013), and Cristofaro and Falzago (2014), who studied entities listed on the Stock Exchange in Milan, Cimini (2013), who studied entities listed on the Stock Exchanges in France, Germany and Italy, Jianu, Jianu, and Gusatu (2012), who analysed reports of entities listed on the London Stock Exchange, and Backhuijs, Camfferman, and Oudshoorn (2017), who analysed companies listed on the Amsterdam Stock Exchange, Obradovic and Karapavlovic (2017), who analysed financial reports of entities in Serbia, Gazzola and Amelio (2014), who analysed data for companies listed on the Prague Stock Exchange, Būmane (2018), who analysed entities on the Stock Exchange in Riga, Lapkova and Stasova (2014), who analysed reports of companies preparing financial reports according to IFRS in Slovakia, and finally Ozcan (2015), who included entities listed on the Istambul Stock Exchange in his research.

In Poland, this issue was addressed by, among others, Szychta, Walińska, Bek-Gaik, Sajnóg, Gad, Piosik, and Prewysz-Kwinto, who analysed data included in the financial reports prepared by companies listed on the Warsaw Stock Exchange (Prewysz-Kwinto, 2020b, p. 71). The presented conclusions, indicated first of all, a considerable difficulty in comparing information concerning OCI between companies due to the considerable freedom of its presentation in a financial statement allowed by IAS 1. A notable variability over time of the value of OCI was emphasised, as was these companies considerably greater diversity in relation to the net profit, which, translating into comprehensive income, can weaken or even limit the possibility of its use by stakeholders to make the right economic decisions. Yet, a larger variability and diversity result from the change in the external conditions reflected in the fair value of the elements of assets and liabilities at the balance sheet date.

One such important change influencing recently the activities of economic entities, and primarily their results reported in statements of comprehensive income, has been the Covid-19 pandemic. Another question whether, and if yes, how, the pandemic has influenced the value of OCI reflected in comprehensive income has arisen. A study aimed at answering the questions and also continuing the trend of research concerning this element of financial reporting was conducted. The results are presented later in this study. Attention should be drawn to the fact that no study concerning OCI at the time of the pandemic has been conducted in our country or abroad. Due to the fact that, as indicated above, the value of OCI depends mainly on external factors, this study is important for assessing the impact of the Covid-19 pandemic on the financial position and performance of an entity. Thus, it is part of the research on the statement of comprehensive income, which concerns the usefulness of the information it contains.

3. The study methodology and the characteristics of the studied group

The study covered the 140 biggest capital groups listed on the GPW in Warsaw which on 15 January 2022 comprised its main indices, i.e. the WIG20, mWIG40 and sWIG80. The selection of the entities was not random but deliberate. An entity from the above mentioned indices could be included in the studied group only when four of the following conditions were met:

- in accordance with Regulation No 1606/2002 of the European Parliament and of the Council[2] and article 45 of the Accounting act, an entity prepared a financial statement in accordance with the International Financial Reporting Standards throughout the studied period, i.e. in the years 2021-2019 (2021 and 2020 – two years of the Covid-19 pandemic and 2019 – the year before it started);
- an entity recorded other comprehensive income in all the studied years;
- for reasons of consistency of the compared data, only the entities whose financial year finished on 31 December were included in the study;

[2] Regulation No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards

- for reasons of consistency of the compared data (mainly due to different limitations related to the pandemic in individual countries), the study included only the entities based in Poland which prepared financial statements in Polish currency; therefore, those with their head offices abroad (mainly from Ukraine) were excluded.

After all the above criteria were taken into account, the obtained group consisted of 91 entities, 20 from the WIG20 (the biggest entities), 28 from mWIG40 (medium--sized units) and 43 from sWIG80 (small entities). If the studied entity created a capital group, the analysis concerned data from consolidated statements, in other cases data from individual statements were taken into account.

The entities included in the study represented different sectors presented in detail in Table 1.

Table 1. Sector-specific characteristics of the studied group

Sector	Number of company	Share
Automotive	4	4.40%
Chemical and Fuel	6	6.59%
Clothing	3	3.30%
Construction	11	12.09%
Energy	6	6.59%
Financial Services	15	16.48%
IT	8	8.79%
Mechanical and Electromechanical	4	4.40%
Media	3	3.30%
Metal	5	5.49%
Mining	3	3.30%
Pharmaceutical	3	3.30%
Real Estate	6	6.59%
Retail and Wholesale	4	4.40%
Other	10	10.99%
Total	**91**	**100.00%**

Source: own study.

In the studied group, entities from the financial sector (mainly banks), also those from construction and Information Technology sectors, constituted the largest share. The other group included among others units from the furniture, paper, food, tourism, and telecommunications industries, and also those manufacturing medical equipment.

The aim of the study was to identify similarities or differences in the level of other comprehensive income in the period of the Covid-19 pandemic (in 2021 and 2020) and before it started (2019). In the quantitative analysis, techniques of descriptive statistics and statistical tests of significance were used, and the achieved results were compared (if possible) with those from the earlier studies in this area. Due to the deliberate selection of the study sample and limiting the study only to capital groups included in the WIG20, mWIG40 and sWIG80 and preparing statements in accordance with IFRS, the results obtained and presented in the study are not representative for the whole population understood to mean all the entities listed on the Warsaw Stock Exchange.

4. The results of the study

The assessment of the formation of other comprehensive income started with comparing the kind of result (positive or negative) generated by the studied entities in the three examined years. The aim was to assess the parameter during the Covid-19 pandemic and before it. The number and share of the entities with positive and negative OCI in individual years, for the whole group and in terms of the size of the entities included in it, are presented in Table 2.

Table 2. The number (N) and share (in %) of entities with a positive and negative level of other comprehensive income in 2021-2019

		2019				2020				2021			
		+		–		+		–		+		–	
		N	%	N	%	N	%	N	%	N	%	N	%
All study group		42	46.2	49	53.8	53	58.2	38	41.8	55	60.4	36	39.6
Entities from:	WIG20	11	55.0	9	45.0	12	60.0	8	40.0	13	65.0	7	35.0
	mWIG40	12	42.9	16	57.1	18	64.3	10	35.7	17	60.7	11	39.3
	sWIG80	19	44.2	24	55.8	23	53.5	20	46.5	25	58.1	18	41.9

The percentage was calculated for the number of studied entities from a given stock index – for WIG20 it amounted to 20, for mWIG40 – 28, and for sWIG80 – 43

Source: own study.

When starting to analyse the data presented in Table 2, it should be indicated that in the two years of the Covid-19 pandemic the proportion of entities recording a positive value of OCI was a little higher than in the year before the pandemic. In its first year it amounted to 58.2%, in the following year it increased to 60.4%, and in the year before the pandemic to just 46.2%. Therefore, the presented results show that during the pandemic, over half of the studied entities recorded a positive value of OCI increasing the value of the comprehensive income in relation to the net profit, while in the year preceding the pandemic those with a negative value prevailed. An increased number of entities recording positive OCI during the pandemic was seen for all the separate groups, i.e. for big entities (WIG20), medium-sized ones (mWIG40), and small ones (sWIG80), though in the second year the share was bigger than in the first year for the big and small groups. The opposite situation can be seen in the case of the medium-sized groups, in which the share of entities recording positive OCI in the second year was slightly lower than in the first one.

It should be added that such changes were not seen in the case of the net profit. Firstly, the percentage of entities recording a positive value of the net profit was significantly higher and exceeded 75% during the whole period of the pandemic. Moreover, in its second year and in the year before it, the share of entities generating the net profit was identical at 85%. However, in the first year of the pandemic, it was lower – 76%. This indicates that in the first year of the pandemic, the number of entities recording a net loss increased, but in the second year the situation was identical to that before the pandemic.

Since the number of entities recording a positive value of OCI during the pandemic was slightly higher than of those with a negative value, it was established in the analysis how many entities lowered their value. In the analysis, the results from the first and second years of the pandemic were compared separately with the results achieved in the year before the pandemic, and also a combined analysis aiming at establishing how many entities in the two years of the pandemic recorded lower and how many higher OCI than before the pandemic was conducted. The results are presented in Table 3.

Table 3. The number (N) and share (in %) of entities recording lower/higher profits during the pandemic (in 2021 and 2020) than in the year before the pandemic (2019)

		OCI lower in 2021 than in 2019		OCI lower in 2020 than in 2019		OCI in 2021 & 2020 lower then in 2019		OCI in 2021 & 2020 higher then in 2019	
		N	%	N	%	N	%	N	%
All study group		37	40,7	35	38.5	16	17.8	35	38.5
Entities from:	WIG20	9	45.0	7	35.0	3	15.0	7	35.0
	mWIG40	12	42.9	12	42.9	5	17.9	9	32.1
	sWIG80	16	37.2	16	37.2	8	18.6	19	44.2

The percentage was calculated for the number of studied entities from a given stock index – for WIG20 it amounted to 20, for mWIG40 – 28, and for sWIG80 – 43

Source: own study.

When analysing the data presented in Table 3, it should be noted that in both years of the pandemic the share of entities recording smaller values of OCI than before the pandemic was similar, at around 40%. In the case of the medium-sized and small units, the share was identical and for the big ones higher in the second year of the pandemic. Attention should be drawn to the fact that the number of entities which in both years of the pandemic recorded smaller values of OCI than in the year before it was considerably smaller; such entities accounted for just 17% of the whole studied group. The number of units that in both years of the pandemic recorded better results than before it, was twice as high and represented 38.5% of the total. However, almost half of the studied units (44.9%) recorded higher OCI in the one year of the pandemic and lower in the other year than in the year before it. This raises the question of whether the values of other comprehensive income and the changes differed not only in relation to the period before the pandemic but also during it.

The methods of descriptive statistics were used in answering the question. For the whole studied group, and separately for the big, medium-sized and small entities, mean value ($\overline{X}$) and standard deviation (s) of other comprehensive income were calculated. The achieved results are presented in Table 4.

Table 4. Mean value ($\overline{X}$), standard deviation (s) (in PLN million) and asymmetry coefficient of other comprehensive income in 2022-2019

		2019		2020		2021	
		$\overline{X}$	s	$\overline{X}$	s	$\overline{X}$	s
All study group		16.35	143.06	77.70	369.10	–321.65	1 256.40
Entities from:	WIG20	50.78	256.40	170.62	616.59	–864.29	2 069.28
	mWIG40	18.42	132.29	107.93	390.06	–381.39	1 303.06
	sWIG80	–1.02	22.03	14.79	61.92	–30.35	138.74

Source: own study.

The data presented in Table 4 indicate that in the first year of the pandemic the mean value of other comprehensive income, calculated for all the studied entities and separately with regard to their size and belonging to a specific stock index, was several times bigger than in the year before the pandemic, and at the same time was characterised by a much bigger diversity (a higher standard deviation). Taking the whole studied group into consideration, the mean value of OCI increased from PLN 16.4 million in 2019 to PLN 77.7 million in 2020, that is by 375%, which indicates that other comprehensive income influenced comprehensive income more during the pandemic than in the year before it.

In the second year of the pandemic the situation changed in relation to the previous years. The mean value of OCI was significantly negative when analysing both the whole studied group and the data with regard to the size of an entity. For the whole studied group, the mean value of OCI amounted to PLN –321.7 million, and for the biggest units included in WIG20 to as much as PLN –0.86 billion. As far as the absolute value is concerned, the mean value of OCI increased again several times in relation to the first year of the pandemic, influencing comprehensive income much more. Thus, the two-year period of the pandemic caused much greater changes in the value of balance sheet items, the effects of which are presented in the area of other comprehensive income, than in the pre-pandemic period. Moreover, the analysis confirmed that the pandemic did not change the OCI value equally in both years of its duration.

In order to verify whether the mean values of other comprehensive income presented in Table 4 differ in individual years statistically significantly, additional tests of significance for dependent variables were conducted (the same studied group, and evaluated parameters concerned other periods).

When constructing the assumptions of the test of significance, the H_0 hypothesis was formulated and it proposed an equal mean value of OCI ($m_1 = m_2$). The H_1 hypothesis assumed that, in accordance with the values achieved earlier and presented in Table 4, the mean was higher in 2020 than in 2019 ($m_1 > m_2$), and in 2021 lower than in 2019 ($m_1 < m_2$). Additionally, a test of significance was also conducted for values in 2021 and 2020 in order to verify whether those from the second year of the pandemic were statistically significantly lower than those in the first year. In accordance with its assumptions, the one-tailed Student's t-test was used in the analysis. The H_1 hypothesis, the values of the Student's t-test statistic and the probability value allowing for rejecting H_0 in favour of H_1, are presented in Table 5. In accordance with the general rules, it was assumed in the analysis that the differences are statistically significant as the probability value is smaller than 0.05.

Table 5. The H_1 hypothesis with the values of the Student's t-test statistic and the probability value for the studied groups (the grey colour indicates statistically significant dependencies)

		2020 vs 2019			2021 vs 2019			2021 vs 2020		
		H_1	t	p	H_1	t	p	H_1	t	p
All study group		$m_1 > m_2$	1.77	0.040	$m_1 < m_2$	2.35	0.010	$m_1 < m_2$	2.47	0.008
entities from:	WIG20	$m_1 > m_2$	0.88	0.195	$m_1 < m_2$	1.82	0.042	$m_1 < m_2$	1.90	0.036
	mWIG40	$m_1 > m_2$	1.78	0.043	$m_1 < m_2$	1.48	0.075	$m_1 < m_2$	1.53	0.068
	sWIG80	$m_1 > m_2$	1.57	0.062	$m_1 < m_2$	1.34	0.094	$m_1 < m_2$	1.67	0.052

Symbols: t – values of the Student's t-test, p – the probability value allowing rejecting H_0 in favour of H_1, m – mean value.

Source: own study.

The results presented in Table 5 show that the values of OCI in the second year of the pandemic were statistically significantly lower than in the year before the pandemic (2019) and in its first year (2020) for both the whole studied group and the biggest entities included in the WIG20, with the probability value of below 0.05.

Such dependencies were not indicated for the small and medium-sized groups, though it should be noted that the probability value allowing to reject H_0 in favour of H_1 was low, i.e. below 0.1. As far as comparing the value of the OCI between 2020 and 2019, statistically significantly higher values in the first year of the pandemic were indicated for the whole group and for medium-sized units.

The significant differences in values of other comprehensive income as well as the fact that in the first and second years of the pandemic they manifested an opposite tendency prompted a more detailed analysis and verification of which entries in the OCI reported in the financial statements of the studied entities were of the highest importance in this respect. In accordance with the rules of IAS 1 concerning the presentation of the OCI, an analysis was conducted separately for those being and those not being the subject of reclassification to profit and loss.

Table 6 presents the main entries of the OCI recorded in the financial statements of the studied units, their frequency, also the calculated share of positive and negative income and the mean value in the whole studied period.

At the beginning of the analysis of the results presented in Table 6, it must be indicated that among OCI being the subject of reclassification to profit and loss, the following entries were indicated most frequently: *exchange rate differences from the conversion of foreign units' statements* – included in 66% of the studied entities and *the effects of evaluation of cash flow hedges* – 51.6%. Among OCI not being the subject of reclassification, *actuarial gains and losses concerning employee benefits* dominated – 63.7%. Other entries appeared much less frequently. It should also be noted that the frequency of the reported individual OCI did not change in the whole studied period, and almost all entities reported identical entries in every year. This allows for the conclusion that the Covid-19 pandemic did not contribute to the presentation of a wider range of other comprehensive income than in the year before it.

When comparing the OCI as being and not being the subject of reclassification, it must be stressed that the former were reported in the whole studied period much more often (in over 86% of financial statements) than the latter (fewer than 68%). Moreover, the absolute value of the average OCI being the subject of reclassification was also higher in the whole period, which indicates that those entries were of much higher significance in the formation of comprehensive income. The above confirms that the Covid-19 pandemic did not change the structure and scope of the presented information according to the principles required by IAS 1. It should also be pointed out that in the whole studied period, the mean values of OCI as being and not being the subject of reclassification were of opposite values, i.e. when the OCI mean value of the former was positive, it had a negative value for the latter and vice-versa.

When comparing OCI as being the subject of reclassification in the first year of the pandemic with the year before it, it must be pointed out that the number of positive results increased for all the entries except the one concerning *the effects*

Table 6. Main entries of other comprehensive income, their frequency (in %), the share of positive and negative income (in %) and mean value in 2021-2019 (in PLN million)

		2019							2020							2021						
		entites		OCI positive		OCI negative		$\overline{X}$	entites		OCI positive		OCI negative		$\overline{X}$	entites		OCI positive		OCI negative		$\overline{X}$
		N	%	N	%	N	%		N	%	N	%	N	%		N	%	N	%	N	%	
A.	**OCI that can be reclassified to profit or loss:**	**80**	**87.9**	**44**	**55.0**	**36**	**45.0**	**26.95**	**81**	**89.0**	**50**	**61.7**	**31**	**38.3**	**78.37**	**79**	**86,8**	**41**	**51.9**	**38**	**48.1**	**-397.73**
1.	effects of evaluation of cash flow hedges	48	52.7	44	91.7	4	8.3	35.33	47	51.06	18	38.3	29	61.7	20.93	47	51,6	23	48.9	24	51.1	-438.60
2.	effects of debt instruments evaluation in fair value entry	19	20.9	10	52.6	9	47.4	29.04	17	18.7	15	88.2	2	11.8	251.71	19	20.9	4	21.1	15	78.9	-795.41
3.	exchange rate differences from the conversion of foreign units' statements	56	61.5	25	44.6	31	55.4	2.82	62	68.1	40	64.5	22	35.5	23.32	60	65.9	30	50.0	30	50.0	18.90
4.	share of other income of associates entities / joint ventures	1	1.1	1	100.0	0	0.0	0.4	2	2.2	2	100.0	0	0.0	14.6	4	4.4	3	75.0	1	25.0	5.25
B.	**OCI that can not be reclassified to profit or loss:**	**60**	**65.9**	**12**	**20.0**	**48**	**80.0**	**-10.99**	**62**	**68.1**	**15**	**24.2**	**47**	**75.8**	**-7.71**	**62**	**68.1**	**48**	**77.4**	**14**	**22.6**	**36.09**
1.	actuarial gains and losses	56	61.5	6	10.7	50	89.3	-14.48	59	64.8	12	20.3	47	79.7	-17.36	58	63.7	46	79.3	12	20,7	29.98
2.	effects of equity instrument evaluation in fair value	15	16.5	8	53.3	7	46.7	0.64	14	15.4	7	50.0	7	50.0	31.13	16	17.6	12	75.0	4	25.0	42.77
3.	share in other comprehensive income of entities accounted using the equity method	4	4.4	0	0.0	4	100.0	-3.25	3	3.3	1	33.3	2	66.7	-1.00	2	2.2	2	100.0	0	0.0	9.50
4.	effects of evaluation of fixed assets and investment property in fair value	4	4.4	3	75.0	1	25.0	1.03	3	3.3	1	33.3	2	66.7	4.87	8	8.8	5	62.5	3	37.5	4.68

Source: own study.

of hedging instruments (in 2019, 91.7% of the entities reported a positive value, and in 2020 only 38.3%) The larger number of positive results translated into the increase of the mean value. This is most clearly seen for *the effects of debt instruments evaluation in fair value* entry, the mean of which increased over eight times – from PLN 29 million to PLN 251.7 million.

When comparing the second year of the pandemic with the year before it, a reversed trend can be seen. The number of reported negative results increased, reflected in the average value, which, as shown in Table 4, significantly decreased compared to both 2020 and 2019. Particular attention should be drawn to the above mentioned entry of *the effects of debt instrument evaluation in fair value by other comprehensive income*. In 2019 its mean value amounted to PLN 29 million, in the first year of the pandemic it increased to PLN 257.1 million, and in the second year it fell to PLN -795.4 million. The change of the mean value was consistent with the number of entities reporting positive and negative results in this entry – in the year before the pandemic, a positive value was reported by 52.5% of the studied units, in the first year of the pandemic the share increased to 88%, and in the second year positive values were reported in only 21.1% of them. This indicates that the effects of debt instrument evaluation in the first year of the pandemic had a positive influence on comprehensive income, and in the second year the influence was negative.

As far as OCI not being the subject of reclassification is concerned, attention must be drawn to the two most frequent entries. The first one is *actuarial gains and losses*. Their mean value in the first year of the pandemic was slightly lower with a simultaneous slight decrease in the number of negative results (from 50 to 47), and an increase of the positive ones. In the second year of the pandemic, the mean value increased significantly (from PLN -17.4 million in the first year to PLN 30 million in the second year) with a simultaneous increase in the number of entities reporting positive results (from 12 to 46). The other entry is *the effects of equity instrument evaluation in fair value*. Even though it was not frequent, only in fewer than 20% of the studied entities, in the year before the pandemic the mean value amounted to only PLN 0.6 million, while in the first year of the pandemic it grew to PLN 31.1 million with a similar structure of positive and negative results. In the second year of the pandemic it increased again to PLN 42.7 million, with a simultaneous growth in the number of units reporting a positive result to 75%. It should be emphasised that this entry manifested the highest mean values during the entire pandemic period, which with the increasing number of positive results affected the value of comprehensive income positively. It is also worth adding that *the evaluation of debt instruments in fair value* was the entry that manifested the highest (as to absolute value) mean values within OCI being the subject of reclassification. Therefore, the entries with the strongest influence on comprehensive income in the pandemic period were those connected with the evaluation of financial instruments, debt and equity ones. In the case of debt instruments, in the first year of the pandemic, the influence was positive, whereas as regards equity instruments, the impact was positive in both years of the pandemic period.

In order to verify the significance of the differences concerning the most important entries of the OCI in individual years of the pandemic and before it, tests of significance for dependent variables were conducted again. The H_0 hypothesis assumed equality of mean value of OCI ($m_1 = m_2$), whereas the H_1 hypothesis assumed, in line with the values obtained earlier and presented in Table 5, that the average was accordingly higher ($m_1 > m_2$) or lower ($m_1 < m_2$). In line with its assumptions, the one-tailed Student's t-test was used again in the analysis. H_1, the values of the Student's t-test statistic and the probability value allowing to rejecting H_0 in favour of H_1, are presented in Table 7.

Table 7. H_1 with the values of the Student's t-test statistic and the probability value for the reported OCI (the grey colour indicates statistically significant dependencies)

	2020 vs 2019			2021 vs 2019			2021 vs 2020		
	H_1	t	p	H_1	t	p	H_1	t	p
OCI that can be reclassified to profit or loss:	$m_1 > m_2$	1.46	0.0743	$m_1 < m_2$	2.57	0.006	$m_1 < m_2$	2.58	0.006
effects of evaluation of cash flow hedges	$m_1 < m_2$	0.26	0.399	$m_1 < m_2$	2.15	0.018	$m_1 < m_2$	2.00	0.026
effects of debt instruments evaluation in fair value entry	$m_1 > m_2$	2.95	0.004	$m_1 < m_2$	2.86	0.005	$m_1 < m_2$	2.92	0.004
exchange rate differences from the conversion of foreign units' statements	$m_1 > m_2$	2.08	0.021	$m_1 > m_2$	1.48	0,073	$m_1 < m_2$	0.53	0.297
OCI that can not be reclassified to profit or loss:	$m_1 > m_2$	1.23	0.111	$m_1 > m_2$	2.89	0.003	$m_1 > m_2$	2.67	0.005
actuarial gains and losses	$m_1 < m_2$	0.91	0.183	$m_1 > m_2$	2.69	0.005	$m_1 > m_2$	2.55	0.007
effects of equity instrument evaluation in fair value	$m_1 > m_2$	1.44	0.084	$m_1 > m_2$	1.48	0.078	$m_1 > m_2$	0.41	0.342

Symbols: t – values of the Student's t-test, p – the probability value allowing rejecting H_0 in favour of H_1, m – mean value

Source: own study.

The data included in Table 7 show that the values of all entries of other comprehensive income being the subject of reclassification except *exchange rate differences from the conversion of foreign units' statements* were in the second year of the pandemic period significantly lower than in the years 2019 and 2020. Similarly, the values of other comprehensive income not being the subject of reclassification except *equity instrument evaluation in fair value* appeared statistically significantly higher in 2021 than in 2020 and 2019. As far as comparing the first year of the pandemic with the preceding year is concerned, statistically significantly higher values for *the effects of debt instrument evaluation in fair value* and *exchange rate differences from the conversion of foreign units' statements* were demonstrated. It should be pointed out that all the statistically significant differences were confirmed with a very low probability value ($p < 0.03$).

5. Conclusion

The analysis of the formation of OCI reported in the financial statements drawn up in accordance with IFRS by entities listed on the Warsaw Stock Exchange presented in the study led to drawing multiple conclusions.

During the pandemic period, slightly more units reported positive values of OCI and this is more clearly seen in the second year. Despite a higher number of positive results, a higher value of OCI in both periods of the pandemic, when compared with the last year before it, was reported by slightly more than one third of the studied units (38%). Almost half of them reported higher in the first year and lower in the second year values of OCI than before the pandemic. This was confirmed by the calculated mean value, which in the first year of the pandemic period was significantly higher than that in the year before it, but in the second year significantly lower. This means that the pandemic did not affect the OCI value in the same way in both years of its duration.

Moreover, during the pandemic, the absolute value of mean value was even several times higher with a significantly higher level of standard deviation, which allows for the conclusion that during the pandemic period the OCI achieved much higher positive and negative values than in the preceding year. Thus, the two-year period of the pandemic caused much stronger changes in the value of balance sheet items, the effects of which are presented in the section of OCI than in the pre-pandemic period. Additionally, the OCI itself had a much stronger impact on the value of the comprehensive income.

In the whole studied period, among all the OCI entries, those being the subject of reclassification to profit and loss were reported more often than those not being the subject of such reclassification – and this structure did not change much during the pandemic nor before it. What is more, the frequency of reported individual OCI did not alter in the whole studied period, and almost all entities reported identical entries in each year. Thus, the Covid-19 pandemic did not contribute to changes in the scope of the presented OCI.

Finally, the absolute value of OCI mean value being the subject of reclassification was again higher during the whole pandemic period than before it, which allows to conclude that it is OCI being the subject of reclassification that influence comprehensive income of the studied entities the most.

Regarding the OCI being the subject of reclassification, *exchange rate differences from the conversion of foreign units' statements* and *the effects of evaluation of cash* *flow hedges* were reported most often. Among the OCI not being the subject of reclassification *actuarial gains and losses concerning employee benefits* dominated, while other entries appeared much less frequently. Even so, the conducted analysis showed that the entries with the strongest impact on comprehensive income in the pandemic period were those connected with the evaluation of financial instruments – debt ones and equity ones. In the case of debt instruments, in the first year of the pandemic the influence was positive, whereas as regards equity instruments, the impact was positive in both years of the pandemic period.

To conclude, it should be indicated that because of the complexity of the study, a detailed evaluation of the formation of the value of other comprehensive income (OCI) with regard to the type of activity pursued by the studied entities was not conducted. Due to the importance of the issue, this will constitute the subject of a separate study.

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Inne całkowite dochody a pandemia Covid-19 – na przykładzie podmiotów notowanych na Giełdzie Papierów Wartościowych w Warszawie

Streszczenie: Pandemia Covid-19 jest niewątpliwie tym wydarzeniem, które w ostatnich latach najsilniej wpłynęło na działalność gospodarczą przedsiębiorstw i znalazło odbicie w ich sprawozdaniach finansowych. Celem opracowania jest weryfikacja, czy skutki pandemii Covid-19 są widoczne w obszarze innych całkowitych dochodów prezentowanym w sprawozdaniu z całkowitych dochodów. Opracowanie wpisuje się więc w szerszy nurt badań dotyczących informacji finansowych zawartych w tym elemencie sprawozdania finansowego w powiązaniu jednak z aktualną tematyką pandemii. W opracowaniu przedstawiono wyniki badania wartości OCI w sprawozdaniach z całkowitych dochodów 91 największych podmiotów notowanych na GPW w Warszawie. Analiza porównawcza objęła dane z okresu pandemii (lata 2020-2021) oraz z roku bezpośrednią ją poprzedzającego (2019).

Słowa kluczowe: inne całkowite dochody, sprawozdanie finansowe, MSSF, pandemia, Covid-19.