Evaluation Vital Indexes of Cash Accounting and Accrual Accounting for Preparation Financial Information

Vali Reza Ordouei[1], Alireza Payabnama[2] (Corresponding author)

[1.] MSc of Master of Accounting, Islamic Azad University, Science and Research Branch, Tehran, Iran
[2.] MSc of Master of Accounting, Islamic Azad University, Rasht Branch, Guilan, Iran
alirezapayabnama@yahoo.com

Abstract: This study aims to evaluation vital indexes of cash accounting and accrual accounting for preparation financial information. For data analysis were used econometric models from the literature, based on the multiple regression analysis and adapted to the research objectives. To obtain the research results, in the study were analyzed specific financial information, collected for a sample of listed companies, between 2014 and 2016. At the level of the study, there was estimated and tested the influence of the information attained based on the use of cash accounting (quantified through the cash flow from operations, cash flow from investing and cash flow from financing) and based on the use of accrual accounting (quantified through the variation of the operating and net income) on the capital gains yield of listed companies. Research results show a growth of the value relevance of the information obtained based on the use of accrual accounting compared to the ones obtained as a result of cash accounting use, in the listed companies.
[Vali Reza Ordouei, Alireza Payabnama. **Evaluation Vital Indexes of Cash Accounting and Accrual Accounting for Preparation Financial Information.** *Researcher* 2017;9(6):88-93]. ISSN 1553-9865 (print); ISSN 2163-8950 (online). http://www.sciencepub.net/researcher. 13. doi:10.7537/marsrsj090617.13.

Keywords: Cash Accounting, Accrual Accounting, Preparation Financial Information

1. Introduction

Information from the annual financial statement must meet the requirement of faithful representation of financial position and performance for the reporting entity. In this sense, financial information must meet certain qualitative criteria.

Financial markets' volatility generates intense concerns to investors regarding the permanent improvement of the efficiency in the decision-making process related to the placement of available capitals. To substantiate their decisions, investors should use financial information that meet quality criteria, in the analysis of the determinants informational support, which is complementary to economic environmental factors and contribute to limiting uncertainty associated to the process of transferring capital.

Still in its maturation process, the capital market significantly concern investors regarding the pertinence of the accessed information. In this context, the debate regarding the information relevance and the principles base on which they were elaborated confirm their utility.

Though significantly normalized, accounting still provides different perspectives on displaying the economic reality within specific structures (accrual accounting, cash accounting), thus keeping actual the debates concerning the use of informational output.

The study proposes an analysis of the influence of the information resulted from the appliance of the accrual accounting principles (materialized through performance indicator – operating and net result) and information that is specific to cash accounting (synthesized through cash-flows) on the investment decisions of the available capital owners (expressed by the evolution of attained capital gains yield).

2. Relevance – Fundamental characteristic of financial information

IASB expertise claims that useful financial information meets two basic qualitative characteristics: *relevance* and *faithful representation* of economic reality. *Relevant* financial information is the one that can provide support for the stakeholders in decision making process (OMFP 1802/2014). We appreciate that financial information is relevant if it has predictive value, confirmation value or both values. Financial information has a *predictive value* if it can be used as input in the processes applied by users to foresee future results. The *confirmation value* consists of the capacity of information to help the stakeholders to confirm or to modify previous evaluations.

According to IAS 1 "*Presentation of financial statements*", faithful representation requires the exact reporting of the transactions' effects, of other events and conditions, according to the definition and recognition criteria for assets, liabilities, revenues and expenditures established through the General Framework (IASB, 2011). The accounting regulation, represented by the OMFP 1802/2014 also require that useful financial information must be relevant and to present faithfulness financial positions and performance. From this perspective, it's notice a harmonization of the qualitative characteristics provided by the actual international accounting regulation and the accounting standards (RAS).

Annual financial statements describe the economic phenomena in words and numbers. To be a *faithful representation*, financial statements must be *complete*, *neutral* and must *lack errors*. IASB itself admits that perfection is rarely reached or even never, in spite of the fact that the main objective is to maximize these characteristics of financial information, to the extent to which it is possible.

In certain situations, some *type of mismatch might appear between relevance and credibility*. Thus, if there is an exaggerated delay in information presentation, its credibility can be lost. On the other hand, if the reporting of financial information is delayed, until the moment when all issues are known, its credibility cannot be challenged, but the utility is reduced for the stakeholders that had had to make decisions during that period. "Ensuring the balance between relevance and credibility requires the permanent following of the general objective: the adequate satisfaction of the users' needs in the economic decision making process.".

According to the Conceptual Framework of IASB and to the RAS, alongside the fundamental qualitative characteristics, *relevance* and *faithful representation*, financial information can also meet a series of enhancing qualitative characteristics, so that to increase their utility in the decision making process. Enhancing qualitative characteristics are: comparability, verifiability, timeliness and understandability, which could support the choice of one way out of two alternatives that has to be used to describe a phenomenon, if it is considered that both are equally relevant and faithful presented.

The *costs* < *benefits* restrictions has an economic background, representing more an efficiency and efficacy restriction than a qualitative characteristic.

Comparability represents the characteristic of financial information that allows time and space comparisons. In contrast to the other qualitative characteristics that aim at a single element, comparability refers to at least two elements. *Verifiability* represents the enhancing characteristic which ensures the stakeholders that the information faithful reflects the economic phenomena it proposes to represent. *Timeliness* requires that the information is to be provided to policy makers in time, having the ability to influence their decisions. Understandability requires that financial information to be clearly and briefly presented, to be classified and characterized.

Accounting regulation do not provide ways of quantification of the qualitative level of financial information. Though, the professional judgment and doctrine, by reporting itself to the influence of financial information on the stakeholders' decisions, have conceptualized the determinist relation under the concept of "value relevance". Initially defined in the papers Francis and Schipper (2014) and Barth *et al.* (2016), the *value relevance* concept represents the ability of accounting figures to provide information that influences the share price, respectively the value of the entity.

A *general constraint* that influences the information provided by financial reporting is represented by the cost of obtaining this information, in the sense that benefits resulting from financial reporting must overpass, as much as possible, the costs that are generated by their issuance and use.

3. Differences between cash accounting and accrual accounting

Also*, not every cashing represents a revenue, as not every revenue represents a cashing*. The most frequent revenues registration does not assume the liquidities cashing. They appear in the case of goods or services sales with commercial credit. On other side, cashing without revenue evidencing appears in the case of cashing a rent, an insurance that does not regard the current period but a subsequent one.

On the accounting evolution scale, we can observe that this science is traditionally cash based. In its essence, *cash accounting* is based on the fact that expenditures are recognized in the moment of its payment, and revenues are registered in the moment of collection. As a result, the financial result is not determined as a difference between the sales values and costs values, but as a difference between cashing and payments. Practically, cash accounting doesn't make a difference between the concepts of expenditures and payments, respectively, revenues and cashing. Though, in certain situations, the mentioned concepts overlap, there are enough cases when they are totally different. Thus, *not every payment represents an expenditure, as not every expenditure does not represent a payment*. In the case of stocks provisioning and fixed assets, the payment and expenditures concepts do not overlap.

The real circuit is determined by the goods and services inputs from provisions, their eventual transformation within the entity, and good and services sales to various customers. As a result, the input, the transformation and selling, mainly through the generated revenues and expenditures, causes changes in the size and structure of the wealth.

Accrual accounting registers the revenues in the moment of their happening (invoicing, in most cases), and the expenditures are imposed to the results during their use, irrespective of the date of their cashing or the effective payment. Practically, in the case of accrual accounting there is a net difference between the two circuits that happen within an entity: the real and the monetary circuit.

The monetary circuit consists of the assembly of cashing and payment operations, caused by the receivables and debts an entity registers in its relation with third parts. These total actions condition the cash volume at a certain moment.

An analysis of the controversy between cash accounting and accrual accounting (numerically presented) is made by Professor Feleaga (1996) in "Controverse contabile", that is saw as an identical relation to the one between "reality and convention". In the author's perspective, "cash accounting has overpassed the accrual accounting. Moreover, nowadays, small enterprises and most of the private businesses use, under different forms, the cash accounting".

Given the conditions of the contemporary economy, when most of the trading transactions are made through credits, cash accounting is less usable. An accurate analysis of the provisioning – modification – trading, exploitation – investment – financing, cashing – payments processes reveals significant differences between the size of the financial result and the liquidities balance at a certain moment. Starting from this finding and from the general objective of financial statements of providing an accurate image on the financial position, changes in the financial position and performances of an entity, the *accounting option* is nowadays represented by *accrual accounting.*

The replacement of the cash accounting with accrual accounting was gradually made, as the crediting process developed, being mainly determined by the massive passing from the "cash-deliveries" to "commercial creditdeliveries". Given the fact that the selling-buying relations were made with cash, the moment of the payment and cashing was the same, in most cases, with expenditures and revenues registrations, so that the result attained by the entity could have been approximated as balance of the possessed liquidities.

The implementation of accrual accounting was made due to the concern of providing the users with useful information regarding both the result generating flows and the liquidities generating ones. As it offers data regarding both flows categories, *accrual accounting is more complete*, also including specific elements of cash accounting.

4. Hypothesis development

Most of the accounting regulatory frameworks, as well as the researchers in the field, validate the superiority of the accrual accounting (based on financial results), compared to the cash accounting, regarding the estimation of the company's value. Though, conclusions from the studies on the subject do not totally converge towards this result. The features of the economic environment on which research is made lead to causality relations, which sometimes are even diverging, also emphasizing the need to keep the components reflecting the principles of cash accounting the set of financial statements.

The identification of the most representative indicators, regarding the informative capacity, represents a wide field of scientific debate. In this context, the specific of the accounting reflection principles of transactions and economic events represent a differentiation element, the information attained according to the accrual accounting, respectively the cash accounting, being appreciated to a different relevance degree.

Consler *et al.* (2015) identifies a superior predictive capacity of cash-flows, compared to financial results, regarding future dividends, as the cash-flows make a lesser subject of manipulations. Contrary, El-Sayed Ebaid (2016), focusing on the emerging financial markets, supports the high capacity of financial results to foresee future cash-flows, compared to the actual cash-flows. Thus, the author marks the significant value relevance of results and their components, respectively of the structural elements of accrual accounting (receivables and commercial debts variation, depreciation expenditures, other obligations).

By studying the phenomenon at an international level, Barton *et al.* (2015) notices the fact that there are no indicators regarding the performance, whose relevance is dominating, irrespective of the analyzed economic space, but, their explanatory capacity increases when they are completed by information regarding cash-flows.

In the analyses made on certain performance indicators, attained according the accrual accounting, net to the structural elements of cash-flows (operating, investment and financing cash-flows), Habib, A. (2015), El-Sayed Ebaid (2014) notice a low level of cash-flow relevance compared to indicators such as: *earnings before interest tax depreciation and amortisation* - EBITDA, the turnover, the operating result, net result, total comprehensive income.

Akbar *et al.* (2014) notices the fact that though the debate concerning the utility of issuing cash-flow statements, as a different component of financial situations, has represented an strongly debated subject, the replacement of the financing picture by this report has generated, in the UK, an improvement of the informational content of financial statements, with significant intake to the companies' evaluation process.

A comparative analysis regarding the value relevance degree of the performance indicators and the cash-flows was carried out, in the USA and Mexico, by Miranda-Lopez and Nichols (2012). The study shows the USA investors' appetency for information regarding financial results, while the investors on the Mexican stock exchange counted on cash-flows.

By reporting to the same compulsoriness of the entities to provide information regarding cash-flows, as a part of financial reporting, Malone *et al.* (2014) studies the value relevance of the information gained by the use of cash accounting principles in Australia and New Zeeland, classifying the date in the three defining segments, operating cash-flows, investments cash-flows and financing cash-flows. Results confirm the efficiency of the accounting reform regarding the introduction of the compulsoriness of reporting the cash-flows situation in the two countries. From the author's point of view, the issuance of the announced information contributes to the development and integration of the financial markets in the region, by easing the investors' access to the high value relevance data.

Starting from the results in the literature, the study proposes the testing of the following working hypothesis: *in the case of the companies listed on the Bucharest Stock Exchange, financial information resulted from the use of the accrual accounting principles has a superior value relevance degree compared to the ones obtained after the use of cash accounting principles.*

The influence of the activity field on the informational take in provided by the two data sets is analyzed by Dimitropoulos *et al.* (2014). Focusing on financial companies, the authors identify the superior importance of financial results for the explanation of shares' yields, compared to the support provided by cash-flows. Bepari *et al.* (2013) marks an increase of the relevance of financial results, at the same time with a decrease of the informational intake of cash-flows, under the influence of financial crises.

5. Research methodology

To assess the value relevance resulted from the use of accrual accounting and cash accounting principles, the study proposes a deductive-inductive demarche in formulating and testing of the proposed hypothesis.

The studied population is represented by all companies listed on the Bucharest Stock Exchange, BSE category. At the end of the 2017 financial exercise, 79 companies were listed on the BSE (22 in the Premium class and 57 in the Standard class). To ensure the comparability of the analyzed data, from their total a number 14 were removed, which represented financial intermediates, monetary intermediates, mutual funds and other similar financial entities, as well as the companies for which no information was found for the analyzed period. The testing of the proposed hypothesis is carried out within a final sample that includes 65 BSE listed companies, between 2014 and 2016 (after the implementation of the International Financial Reporting Standards – IFRS), which ensures a number of 195 observations (company/year).

To reach the research results and to validate the hypothesis proposed for testing, the study uses the general linear models (Field, 2015) based on linear regression analysis (Jaba, 2002). Proposed models for the evaluation of the value relevance of financial information resulted from the use of accrual and cash accounting principles are:

For the variables included in the three models, data was collected using Data Stream Advanced 4.0, and the analysis were carried out using SPSS 20.0.

Within the analyzed sample, the main obtained results are represented by a series of descriptive statistics as well as the estimations of the proposed regression models' parameters. For the analyzed variables, *Table 1* displays the descriptive statistics.

Table 1. Descriptive statistics for the analyzed variables

Variables	Minimum	Maximum	Mean	Std. Deviation
ΔrP	-0.7351	2.1131	-0.000735	0.4521902
ΔrOI	-5.6236	2.4289	-0.445362	1.6270961
ΔrNI	-5.6170	6.6500	-0.111655	2.3791749
CFO	-0.0520	0.1679	0.042191	0.0586945
CFI	-0.0887	0.1230	-0.004472	0.0504417
CFF	-0.1601	0.0264	-0.033084	0.4521902

(Source: own processing in SPSS 20.0)

From the information in *Table 1*, we can see that at the level of the analyzed sample, between 2014 and 2016, a BSE listed company has registered, in average, a decrease of the stock price with 0.0735%, caused by decreases in the operating result of 44.5362% and in the net result, of 11.1655%. In the analyzed period, when decreases of the stock price were registered, such a company displays, in average, values of the operating cash-flows of 4.2191%, of the investment cash-flows of 0.44725% and the financing cash-flows of 3.3084% of the total assets.

To test the influence of financial information resulted after the use of the two accounting types' principles (accrual and cash accounting) on the investors' decisions, *Table 2* displays the estimations of the three regression models' parameters that were proposed for the analysis.

Table 2. Parameter estimates for the proposed models

Parameter	Model 1		Model 2		Model 3	
	Estimate	Sig.	Estimates	Sig.	Estimates	Sig.
Intercept	0.014	0.678	-0.021	0.629	-0.016	0.689
ΔrOI	0.036	0.092	-	-	0.031	0.116
ΔrNI	-0.011	0.440	-	-	-	-
CFO	-	-	0.426	0.617	0.698	0.207
CFI	-	-	-0.559	0.534	-	-
CFF	-	-	0.959	0.986	-	-
Observations	195		195		195	
R^2	0.015		0.010		0.020	

Data in *Table 2* show that the value of the determination coefficient, as an indicator of the relevance degree of financial information, for *model 1* (R^2 = 1.50%) is superior to the one corresponding to *model 2* (R^2 = 1.00%). Financial information obtained after the use of accrual accounting has a greater influence on the investors' decision, compared to the information gained after the use of cash accounting. Thus, the operating result and the net result are far more relevant to investors than the cash-flows.

Based on the significance level associated to the estimations of the first regression models, we can evaluate the relevance of each factor on the investors' decisions. Amongst the information attained using the accrual accounting and included in *model 1*, the operating result has a significant influence on the variation of the stock price (a 1% increase of the operating result leads to a 3.6% increase of the stock price), while the variation of the net result has an insignificant influence.

The influence of the cash-flows (operating, investments and financing cash-flows) is also insignificant to the variation of the stock price (*model 2*). But, the informational content of operating cash-flows is relevant to investors when it is corroborated by the one associated to the operating result (R^2 = 2%). *Model 3* presents the influence of the operating result and the operating cash-flows on the investors' decisions, quantified based on the annually average of the variation of the stock price. Using the estimations of the third regression model parameters, as well as the *Sig.* values associated to them, we can observe that the influence of the operating result variation on the annually average of stock price variation is far more significant compared to the influence of the cash flows.

We can conclude that when investors make decisions, the information obtained after the use of the accrual accounting prevails on the ones obtained based on the cash accounting, which complete the image regarding the financial performance of companies. Study results come to confirm the internationally reported results, through the fact that the information regarding cash-flows increases the relevance of the result indicators (Barton *et al.*, 2015).

7. Conclusions

The limits of the study are mainly determined by the inclusion in the analysis of only three financial exercises, namely the ones when companies use the IFRS in financial reporting. This was to ensure the comparability of the data used in the analysis, but future directions propose the widening of the analyzed sample in order to study the influence of the account referential (*pre* and *post* IFRS) on the relevance of the information resulted from the use of the principles of the two types of accounting. Another research direction considers the inclusion in the analysis of other control variables such as the companies' field of activity, just to capture in a more accurate manner the influence of the two accounting forms depending on the companies' specific activities.

Based on the results obtained after the analysis of the three proposed regression models, the hypothesis proposed for testing has been validated, and the research objectives were reached. From the obtained results, we can appreciate that at the level of the BSE listed companies, between 2014 and 2016, there is an increase in the value relevance of the information gathered after the use of accrual accounting, compared to the one obtained after the use of cash accounting. The objective of accrual accounting usage in financial reporting is the provision of useful information regarding both the result generating flows and liquidities generating flows, being more complete and also including elements that are specific to cash accounting.

References

1. Akbar, S., Shah, S. Z. A., Stark, A. W. (2014). The value relevance of cash flows, current accruals, and non-current accruals in the UK, *International Review of Financial Analysis*, 20 (5), 311-319.
2. Barth, M. E., Beaver, W. H., Landsman, W. (2015). The relevance of value relevance research for financial accounting standard setting: Another view, *Journal of Accounting and Economics*, 31, 77–104.
3. Barton, J., Hansen, T. B., Pownall, G. (2015). Which performance measures do investors around the world value the most—And why?, The Accounting Review, 85 (3), 753–789.
4. Bepari, K., Rahman, S. F., Taher Mollik, A. (2014). Value relevance of earnings and cash flows during the global financial crisis, Review of *Accounting and Finance*, 12 (3), 226-251.
5. Consler, J., Lepak, G., Havranek, S. (2011). Earnings per share versus cash flow per share as predictor of dividends per share, *Managerial Finance*, 37 (5), 482–488.
6. Dimitropoulos, P. E., Asteriou, D., Koumanakos, E. (2013). The relevance of earnings and cash flows in a heavily regulated industry: Evidence from the Greek banking sector, *Advances in Accounting*, 26 (2), 290-303.
7. El-Sayed Ebaid, I. (2013). The value relevance of accounting-based performance measures in emerging economies, *Management Research Review*, 35 (1), 69–88.
8. El-Sayed Ebaid, I. 2013. Accruals and the prediction of future cash flows, *Management Research Review*, 34 (7), 838-853.
9. Feleaga, N. 1996. Controverse contabile, Economica Publishing House, Bucharest.
10. Field, A. 2015. Discovering Statistics using SPSS, 2nd edition, Sage Publications.
11. Filip, A., Raffournier, B. 2010. The value relevance of earnings in a transition economy: The case of Romania, *The International Journal of Accounting*, 45 (1), 77-103.
12. Francis, J., Schipper, K. (1999). Have financial statements lost their relevance?, *Journal of Accounting Research*, 37, 319–352.
13. Habib, A. (2015). Value relevance of alternative accounting performance measures: Australian evidence, *Accounting Research Journal*, 23 (2), 190–212.
14. Jaba, E. (2002). Statistica, 3rd edition, Economica Publishing House, Bucharest.
15. Malone, C., Wongchoti, U., Mitchell, A. 2011. Australasian cash flow reporting regulation: value relevant?, Pacific Accounting Review, 23 (3), 345 –367.
16. Miranda-Lopez, J. E., Nichols, L. M. 2012. The use of earnings and cash flows in investment decisions in the US and Mexico: Experimental evidence, Journal of International Accounting, Auditing and Taxation, 21 (2), 198-208.
17. Toma, C. 2015. Contabilitate financiara, Tipo Moldova Publishing House.
18. Toma, C. 2015. Rolul auditului financiar in cresterea calitatii informatiilor financiare, Audit financiar, 11, 5-13.
19. IASB, 2014. Standardele Internationale de Raportare Financiara®, Norme oficiale emise la 1 ianuarie, 2011, Partea A Cadrul general conceptual si dispozitii, CECCAR Publishing House, Bucharest.
20. Order of the Minister of Public Finances (OMFP) No. 1802/2014 for the approval of accounting regulationsin accordance with the European Directives, Official Journal of Romania, No. 963/30.12.2016.

6/17/2017