ROA vs. ROIC

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Abstract
Last developments in financial reporting area have underlined the opportunity and necessity of extending the volume of financial information disclosed by financial statements. To ensure high quality financial information, not just a new marketing tool for managers, financial reporting strategies have been redesigned in order to give more focus on an integrated approach. This was an essential step on providing a solid ground for the new value-based management metrics, which were designed to evaluate management activities, not just on a financial perspective. This way there was emphasized the increasing importance of transferring, partially, information from management accounting to financial reporting. This study is providing evidence on the quantitative differences between the traditional metrics of financial performance and the value-based measurements, revealing significant gaps generated by transition to IFRS, lack of a solid conceptual framework, or fiscal considerations as well.
Keywords: IFRS, economic value added, fair value, market value, correlation

Introduction

The economic system has evolved in the last decades by an exponential trend towards an aggressive international market capitalization, continuous globalization, a significant increase of the multinational corporations' role on the politics of global economic policies, and especially a determinant role of institutional investors (investment funds) on national economies configuration. As expected, the accounting system had to follow the dynamics of the economic system in order the financial statements to disclose accurate and relevant financial information, as these still remain the main source of information for the investors and stake-holders. On this way, the preparers of financial statements have to give high importance to the quality of the financial information as it is essential on decision-making process, which has to lead to an optimal capital allocation and a fair revenue distribution among the factors of production.

It is real the problem of an existing lag between accounting systems development and economic system dynamics. But effort made by the main international actors in accounting normalization is visible and welcomed. It remains just the political factor to be convinced that this step is more important than own information interest as the enforcement process of any change in accounting regulation is in governmental agencies' attribution.

It seems that on the actual economic era, simply the financial information is not enough to give a concise and relevant image of a firm financial position and financial performance. That is why, preparers and users as well have agreed that the financial communication process has to extend its limits and approach the information on an integrated view. This way, complementary to the financial information, all relevant non-financial information has to be presented in correlation with the financial information, in order to depict clear financial situation, reveal relevant risk management information and improve forecast accuracy for valuation use (Beyer et. al., 2010; Lungu et. al., 2013). The way of correlating all these diverse information has given more attention to a recent tool of business performance management, namely the balance scorecard, which attempts to transfer more information from managerial accounting towards financial accounting (Diaconu et. al., 2003). This way, Kaplan & Norton (1996) have considered relevant the approach of reporting through four central perspectives: the financial perspective, marketing perspective, intern perspective and human-capital

perspective, trying to prove the causal interconnections between all these perspectives.

Moreover, main changes in financial information demand structure has forced the preparers of financial statements to consider fundamental reformulation of the financial reporting strategies in order to focus on an increase on voluntary disclosures as well. There is strong evidence that increase on financial disclosures raise significant cost of capital reduction and determine a positive market reaction (Leuz & Verrecchia, 2000). IFRSs seems to be an important tool on assuring the quality of financial voluntary disclosures, which are aimed to confirm figures disclosed by mandatory financial statements, increase investor confidence through a higher financial transparency and a reduction of ligation risk (Beyer et. al., 2010). But, this topic is still on a debate within the professionals, as the preparers prefer to use this reporting tool improperly. This way, most part of the annual report contains non-regulated financial information, which is disclosed voluntary, being easily transformed just on a simple marketing tool, through the use of various impression managements techniques correlated with psychology theories (behavioural finance, prospect theory, mental accounting theory) or sociological theories (attribution theory, counterfactual theory) (Pompian, 2006; Davis & Brennan, 2007; Koonce et. al., 2011). Thus, behavioural finance promote the thesis that financial information is useless as the perception of financial information users is negative, as the traditional finance models can't explain several abnormal earnings like where the cases of well-known fraudulent accounting cases of Enron, Parmalat or Tyco. This way, they try to build different patterns of content analysis of financial information. Also, there are cases where managers try to explain bad results based on economic environment influence, or they just omit including essential financial information on the annual report.

The accounting standard-setting bodies have just to identify the suitable level of financial reporting regulation, as the economic implications vary within jurisdictions, based on a cumulative effect of numerous factors generating accounting systems differences, such as political factor, market incentives, maturity of professionals bodies, level of education, macroeconomic context, cultural factor and the list can continue (Nobes & Parker, 2008).

This article is aimed to reveal the importance accruals have on financial ratios deterioration, because of the various creative accounting

techniques used and accounting treatments diversity determined by the multiple choice provisioned by accounting standards. The study will focus on analyzing the correlation between accounting-based earnings and the price of market-shares for several companies listed on Bucharest Stock Exchange.

Literature review

Financial information is essential on the process of decision-making, even if we talk about financing decision or investment decision. Accounting-based figures are the basic input on financial management and valuation of an enterprise. The quality of financial information disclosed by annual report can affect directly a firm's market-value and facilitate debt contracting at a lower cost (Barth et. al., 2005; Ball et. al, 2008). Moreover, the accounting-based financial ratios are frequently used on managing the agency problem and the design of an optimal contract of mandate for managers which should establish roles of game meant to prevent moral hazard and adverse selection (Bushman & Smith, 2001).

The topic of managing information asymmetry has been widely discussed and different approached were used, like mathematical modelling, as an application of game theory, or simply by empirical evidence of perceptions and correlations between managerial compensation versus financial performances. Additionally, in the literature there are long discussions regarding the proper covenants that should be used in order to reduce costs of agency problem, as some of the financial ratios are significantly affected by different creative accounting techniques? We remind here the results of Christensen & Nikolaev (2011) study, who analyze more specifically the problem of using accounting information in solving the agency problem. First of all, they emphasize that the use of the two types of covenants are negatively correlated. More than that, they notice that the use of capital covenants is preferable in case the contractibility of accounting information decreases, implying potential future litigation costs. In case the investors prefer a higher involvement on company's management activity, they will prefer to use performance covenants, meaning that they will focus not just on preserving their investment, but also will follow the efficiency and effectiveness of managerial actions.

The existing problem is that financial information still has to be more comparable as accounting diversity hasn't been eliminated, even

the international accounting convergence process has registered real success worldwide and IFRSs have been implemented on more than 100 jurisdictions (Nobes, 2011). All these differences impact directly on efficient capital allocation encouraging underinvestment and creating a negative perception of financial information quality within investors, the owners of the capital with highest risk (Biddle et. al., 2009).

To prevent potential shareholders disinvestment by different creative or fraudulent accounting techniques, there were underlined several central direction of financial information quality assuring, which consist of country-level tools and firm-level tools as well. If the enforcement efficiency is in political factor hands, improvements on areas such auditing, corporate governance mechanism and professionals education have to be ensured by every firm on its own (Soderstrom et. al., 2007). Accounting standards quality does not necessary translate in high quality of financial information as market incentives, tax planning or managerial compensation schemes reveal the central managers motivation on drawing financial reporting strategies. Even more, on the context of recent financial crisis, the financial transparency of a firm is essential on managing the cost of capital and the market-value of firms, which should lead to earnings management prevention and confidence consolidation on a long-term time span (Lang et. al., 2012).

The opportune and mandatory reformulation of financial performance metrics is recommended, as even Hail (2013) study reveal. She notice that along a 30 years analysis, accounting practice evolution has negatively affected especially the profit and loss statement, on the ground of various used earnings management techniques, while the balance-sheet informational content relatively remained constant under the pressure of the institutional framework.

Table no. 1. Value-based metrics

Financial metric	Formula	Elements
Corporate value	$$CV_t = NA_t + \sum_{i=1}^{n} \frac{PVB_i}{(1+WACC_i)^i}$$	PVB_i – value-based performance metric; $WACC_i$ – weighted average cost of capital;
Residual Income	$$RI_t = NE_t - WACC_t \cdot NA_{t-1}$$	NE_t – net earnings before interest expenses; NA_{t-1} – book value net assets;
Economic Value Added	$$EVA_t = NOPAT_t - WACC_t \cdot CI_{t-1}$$	$NOPAT_t$ - net operating profit; $Capital_{t-1}$ –capital invested;
Economic Profit	$$EVA_t = NOPLAT_t - WACC_t \cdot E_t$$	$NOPLAT_t$ - net operating profit less adjusted taxes; E_t – equity capital;
Cash Value Added	$$CVA_t = OGCF_t - ED_t - WACC_t \cdot GI_{t-1}$$	$OGCF_t$ - operating gross cash flow; ED_t – economic depreciation; GI_{t-1} – gross investment;
Cost of capital	$$WACC_t = \frac{E_t}{CI_t} \cdot c_{E_t} + (1-r) \cdot \frac{D_t}{CI_t} \cdot c_{D_t}$$	E_t – equity capital; D_t – debt; c_{E_t} - cost of equity capital; c_{D_t} – cost of debt; r – tax rate;

Source: Authors own projection

In order to eliminate the role of accounting differences, the professionals have designed additional key performance indicators that have become widely used instead of the traditional performance indicators. They are laudable the efforts of accounting standard-setters on importing the valuation approach of financial structures of the financial statements, to reflect a true and fair view of the financial situation of the companies. Unfortunately, the implementation of the

concepts like fair value, economic resources, or simply the incapacity of accounting standards to manage the uncertainty through accounting estimates have made opportune the use of new financial performance metrics that focus especially on reflecting management activity impact on shareholders' value creation. The accounting-based measures are not suitable as they are highly impacted by the accounting choice and discretionary disclosures.

The main goal of financial management is the maximization of shareholders' investment. For this, each company is implementing differently a value-based system of performance indicators, in order to target and monitor the impact of management activities on shareholders value-added. The main difference between earnings and value-added metrics is that earnings omit the opportunity cost of capital. Additionally, influence of financing schemes like lease-back, the use of big-bath accounting techniques will be eliminated as value-based measures are analyzed on a longer timeframe, using forecasts adjusted to reflect cash flow measures instead of accounting-based forecasted earnings (Holler, 2009).

The most used value-based metrics are the residual income (RI), the economic value-added (EVA), the economic profit (EP), or the cash value-added (CVA), as single-period metrics. The market value of each metric can be determined by the sum of the discounted single-period values, considering the risk of invested capital. The risk of invested capital is to be determined based on the CAPM relation, which has to reflect the marginal gain for investor of each additional unit of invested capital.

The EVA metric, compared to the RI and EP, differs by the accounting adjustments done in order to eliminate the accounting policy impact on the financial performance, like is the amortization method, the way of recognizing the research and development expenses, the lease treatment, the delimitation done between equity financial instruments versus debt financial instruments etc. For this, there were developed other indicators which have replaced book depreciation with economic depreciation, as is the case of cash value added metric.

Fig. no. 1. Qualitative characteristics of common performance metrics

	Traditional measures			Cash flow measures			Residual income measures			
	EPS	ROE	RONA	DCF	SVA	TBR	RI	EVA	EP	CVA
Validity	-	-	-	+	+	+	+	+	+	+
Controllability	+	+	+	+	+	-	+	+	+	+
Consistency	N/A	-	-	+	+	+	+	+	+	+
Objectiveness	+	+	+	-	+	+	+	+	+	-
Periodic delimitation	+	+	+	+	-	+	+	+	+	+
Ease of implementation	+	+	+	+	+	+	+	+	+	-
Depreciation neutrality	-	-	-	+	+	+	-	-	-	+

Source: Holler (2009), New metrics for Value Based Management

Traduced on the basis of traditional metrics, the value-based management metrics can be determined according to the following relations (Fernandez, 2002):

➢ economic profit (EP): $EP_t = (ROE - r_{E_t}) \cdot E_t$, where r_{E_t} is the required return to equity;

➢ economic value added (EVA): $EVA_t = (ROA - WACC_t) \cdot CI_t$;

➢ Cash value added (CVA): $EVA_t = (CFROI_t - WACC_t) \cdot GI_t$.

A central difference between traditional metrics, such as ROE, ROA or ROI is that the value-based performances consider in calculation investors' expectations as well.

There is no recipe for the best metric to be used, as it should be chosen based on the analysis aims. It is obvious that cost of capital is reflecting the risk of capital invested and the expected return of investors as well. Regarding this key indicator, based especially on balance-sheet statement, the focus should be on the quality of the financial structure of an entity, because even the functional balance-sheet does not eliminate completely issues of accounts classification. Currently, IASB current project of conceptual framework for financial

reporting is dealing with this topic, without a final result, as the project was rescheduled for new board deliberation for 2015.

Overall, all these new financial performance metrics lead to a consistent reduction of accruals influence on performance management. But they do not completely eliminate all the problems of recognition, measurement or reclassification of financial statements elements. That is why the new metrics should be analyzed cautiously, in strong correlation with information revealed by the capital markets.

Methodology research

On this study we will analyze the correlation between return on invested capital (ROIC) versus return on equity (ROA). The difference between the two metrics can be explained by the cost of opportunity for the equity capital which is not included in the ROA measurement.

ROIC is calculated by relation $OIC = \dfrac{EVA}{Capital\ invested}$

ROA is calculated by formula $= \dfrac{Gross\ profit}{Capital\ invested}$

Our sample consists of 9 listed companies on BSE, activating on pharmaceutical area and extraction industry. The dates were collected manually from the statutory financial statements available online on the analyzed companies' website.

By PV of operating leases we mean to present value of annual payments for the operational leases, as they have to be added to the invested capital, because they are initially considered off balance-sheet accounts. They are calculated based on the relation $PV_{ol} = Rate \cdot \dfrac{r_d}{1 - \left(1 + r_d\right)^{-n}}$, where r_d is the debt interest rate calculated for the Romanian economic environment (Damodaran, 2012). The rate represents the annual payment planned till the end of the concession contract. It is just the case for BioFarm, as the rest of the companies have no current operating leases.

The model used on calculating EVA is the following.

Table no. 2. Economic Value Added calculation framework

Financial performance impact (bottom-up approach)		*Financial position impact* (asset approach)	
Indicator	*Sign*	**Indicator**	*Sign*
Taxes		*Net operating assets*	
Interests		Net PPE	+
EBIT		Intangibles	+
Advertising costs	+	Other assets	+
Interest on operating leases	+	Bad-debt reserve	+
Variance in bad-debt reserve	+	Capitalized R&D (unamortized)	+
R & D expenses	+	PV of operating leases	+
Depreciation of R & D	+	= **Invested Capital**	
= *Adjusted Operating Profit*		Equity	-
Variance in deferred income taxes	-	Cost of equity	*
Taxes on non-operating income	-	Debt	+
Interest expense tax	+	Cost of debt	*
= *Cash operating taxes*	+	Leverage	
= **NOPAT**		= **WACC**	

Source: Grant (2003), Foundations of Economic Value Added

Table no. 3. PV of operating leases (Biofarm)

							Interest value		
Year of contract remained	*Discount*	Value 2011	*Discount*	Value 2012	*Discount*	*Value 2013*	2011	2012	*2013*
1	4.136	473471	3.412	390611	2.640	302217	31628	26093	20188
2			3.032	153588	2.235	113192		10260	7561
3					1.816	72152			4820
	Total	473471		544199		487560	31628	36352	32569

Source: Authors own calculation

For the cost of capital calculus we have used the following dates, as we have chosen to calculate a country level cost of capital in order to eliminate the influence on the analyzed financial performances of the

specific characteristics of financing policy of each company included on the sample.

Table no. 4. β index (by company)

Pharmaceutical industry		Energy & extraction industry	
Company	**Value**	**Company**	**Value**
Antibiotice	0.570	OMV Petrom	1.000
BioFarm	0.720	RomPetrol Rafinare	0.690
RoPharma	0.570	RomPetrol Service	0.890
Zentiva	0.670	TransElectrica	0.860
		TransGaz	0.910

Source: www.kmarket.ro (august 2014)

The relation for cost of capital calculation is $WACC_t = r_0 + \beta \cdot (r_E - r_0)$ for each company, as the β differs.

Table no. 5. Interest rates for the Romanian economic environment

Debt interest				Equity interest	
	Risk free rate of interest	Risk Premium	**Cost of debt (r_D)**	Country Risk Premium (r_0)	3.30%
2011	7.22%	4.80%	12.02%	Equity Risk Premium (r_E)	8.30%
2012	6.48%	5.10%	11.58%		
2013	5.16%	5.60%	10.76%	Tax rate	16.00%

Source: BNR, World Bank, Damodaran (2013)

There will be analyzed the evolution of both financial performance metrics mentioned above considering also the accounting adjustments, if necessary. The analysis will end with a correlation matrix interpretation in order to express the evolution from 2011 to 2013 for each company in our sample.

Results and discussions

As expected, the results of our study reveal high absolute and relative differences between value-based performance metrics versus accounting-based performance measures. There can be noticed a more visible impact of accounting adjustments on EVA components in case of energy & extraction industry firms. This is explained especially by the non-interests bearing current liabilities, meaning accounts payable, wages payable or tax accruals. This means that the industrial specific represents a main factor in order to explain the differences between total assets and invested capital. This is because not all these assets are actively used on the current production processes.

Table no. 6. Accounting adjustments

	Domain of activity	Marketing expenses	R&D expenses	Variance in bad-debt reserve	Variance in deferred income taxes
Antibiotice	Pharmaceutical	x		x	x
BioFarm	Pharmaceutical	x		x	x
Nuclear Electrica	Energy & Extraction			x	x
OMV Petrom	Energy & Extraction		x	x	x
RomPetrolRafinare	Energy & Extraction	x		x	x
RomPetrol Service	Energy & Extraction	x		x	x
RoPharma	Pharmaceutical	x		x	x
TransElectrica	Energy & Extraction	x		x	x
TransGaz	Energy & Extraction	x	x	x	x
Zentiva	Pharmaceutical	x		x	x

Source: Financial statements

Table no. 7. Accounting adjustments values on NOPAT

Company	EBIT			NOPAT			NOPAT adjustments (%)		
	2011	*2012*	*2013*	*2011*	*2012*	*2013*	*2011*	*2012*	*2013*
Antibiotice	31	42	51	31	42	51	21.39%	48.10%	-4.28%
BioFarm	15	15	22	12	13	19	17.25%	17.84%	9.42%
OMV Petrom	4660	4660	5332	3923	3927	4504	0.09%	-0.74%	-0.75%
RomPetrolRafinare	-324	-324	-218	-324	-324	-218	-144.08%	-141.29%	-31.64%
RomPetrol Service	15	15	30	15	15	30	2.36%	0.59%	0.59%
RoPharma	12	12	11	10	10	9	90.80%	71.10%	79.55%
TransElectrica	176	176	249	142	163	210	32.47%	44.69%	40.94%
TransGaz	442	442	536	368	378	440	10.47%	22.75%	10.87%
Zentiva	38	38	51	38	38	51	-0.16%	0.88%	3.41%

Source: Authors own calculation

Table no. 8. Accounting adjustments impact on ROIC

Company	With adjustments			Without adjustments			% Δ		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Antibiotice	-4.19%	0.45%	-0.02%	-3.39%	-11.33%	-8.81%	0.80%	-11.78%	-8.80%
BioFarm	-5.03%	-4.83%	-1.29%	-6.22%	-12.29%	-11.07%	-1.19%	-7.46%	-9.78%
OMV Petrom	1.53%	0.61%	0.88%	-1.52%	-13.82%	-12.68%	-3.06%	-14.43%	-13.56%
RomPetrolRafinare	-9.80%	-9.93%	-12.83%	-16.99%	-11.77%	-10.57%	-7.19%	-1.84%	2.27%
RomPetrol Service	-3.52%	-4.08%	4.41%	-3.95%	-13.61%	-12.12%	-0.43%	-9.53%	-16.52%
RoPharma	-7.12%	-6.89%	-5.94%	-9.45%	-11.47%	-8.25%	-2.33%	-4.58%	-2.31%
TransElectrica	-9.28%	-7.36%	-5.24%	-9.97%	-12.59%	-10.57%	-0.69%	-5.22%	-5.33%
TransGaz	-2.75%	-0.18%	1.61%	-4.58%	-13.46%	-11.37%	-1.83%	-13.28%	-12.98%
Zentiva	-1.17%	0.52%	4.42%	-1.62%	-11.94%	-10.54%	-0.45%	-12.46%	-14.96%

Source: Authors own calculation

Table no. 9. Accounting adjustments impact on ROIC

Company	ROIC (with adjustments)			ROA		
	2011	*2012*	*2013*	*2011*	*2012*	*2013*
Antibiotice	-4.19%	0.45%	-0.02%	6.30%	8.12%	10.04%
BioFarm	-5.03%	-4.83%	-1.29%	8.17%	7.61%	10.59%
OMV Petrom	1.53%	0.61%	0.88%	15.27%	14.24%	13.71%
RomPetrol Rafinare	-9.80%	-9.93%	-12.83%	-5.00%	-4.40%	-2.93%
RomPetrol Service	-3.52%	-4.08%	4.41%	10.37%	9.33%	16.41%
RoPharma	-7.12%	-6.89%	-5.94%	3.13%	3.35%	3.07%
TransElectrica	-9.28%	-7.36%	-5.24%	3.39%	3.55%	4.83%
TransGaz	-2.75%	-0.18%	1.61%	11.13%	11.32%	13.62%
Zentiva	-1.17%	0.52%	4.42%	10.96%	11.79%	14.05%

Source: Authors own calculation

Table no. 10. Accounting adjustments values on invested capital

Company	Total assets			Total adjustments			Invested capital		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Antibiotice	487	514	512	1.78%	-2.01%	5.21%	478	525	486
BioFarm	185	199	211	1.30%	0.33%	0.18%	183	198	210
OMV Petrom	30513	32719	38895	29.13%	26.03%	20.23%	23630	25961	32350
Rompetrol Rafinare	6480	7367	7451	0.58%	1.37%	1.42%	6442	7267	7347
RomPetrol Service	143	159	181	2.22%	1.95%	1.66%	140	156	178
RoPharma	384	359	343	-1.96%	-1.97%	-2.07%	392	366	350
TransElectrica	5181	4945	5153	7.59%	11.97%	11.03%	4815	4416	4641
TransGaz	3973	3906	3935	13.90%	13.80%	13.62%	3488	3432	3463
Zentiva	348	323	360	4.48%	4.87%	4.24%	333	308	345

Source: Authors own calculation

Another difference between the two industries is that pharmaceutical companies focus especially on R & D projects and sales operations. Instead, the energy & extraction companies have a larger cash-cycle time which would lead to a more probable incertitude regarding the accounts receivable vs accounts payable, reflected automatically on the working capital needs of the period. This assertion is based on the significant differences between NOPAT and EBIT, raised by the variance in bad-debt reserves, really high in case of energy & extraction companies compared to the pharmaceutical ones.

But, the difference between NOPAT and EBIT is explained, mainly, by cash operating taxes, as expected, because Romanian accounting regulation is still polluted by multiple fiscal consideration, in order the companies to gain fiscal economies based on deductibility of several expenses.

Table no. 11. EVA and cost of capital values

Company	WAC			EVA					
				With adjustments			Without adjustements		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Antibiotice	0.12	0.11	0.10	-20.1	2.4	-0.1	-16.5	-58.3	-45.1
BioFarm	0.13	0.12	0.11	-9.2	-9.6	-2.7	-11.5	-24.4	-23.3
OMV Petrom	0.15	0.14	0.13	362.4	157.8	284.1	-464.9	-4523.1	-4930.9
RomPetrol Rafinare	0.12	0.12	0.11	-631.5	-721.4	-942.7	-1100.9	-866.8	-787.3
RomPetrol Service	0.14	0.14	0.12	-4.9	-6.4	7.8	-5.7	-21.7	-21.9

RoPharma	0.12	0.11	0.10	-27.9	-25.2	-20.8	-36.3	-41.2	-28.3
TransElectrica	0.13	0.13	0.12	-446.8	-325.2	-243.2	-516.3	-622.3	-544.4
TransGaz	0.14	0.14	0.12	-96.0	-6.3	55.7	-181.9	-525.7	-447.5
Zentiva	0.13	0.12	0.11	-3.9	1.6	15.3	-5.6	-38.6	-37.9

Source: Authors own calculation

For almost all companies analyzed, the EVA seems to be negative, whereas the EBIT value is negative just in case of RomPetrol Rafinare. This is clear evidence that recommend managers, and especially shareholders, to reformulate the financial performance scorecard, as the traditional performance indicators can't reflect a true and fair economic reality of a company.

Table no. 12. Descriptive statistics

Year		ROIC		ROA		Price	
		Statistic	Std. Error	Statistic	Std. Error	Statistic	Std. Error
2011	Mean	-4.59%	1.23%	7.08%	1.99%	28.82	26.09
	Std. Deviation	3.70%		5.98%		78.26	
	Minimum	-9.80%		-5.00%		0.05	

	Maximum	1.53%		15.27%		236.81	
2012	Mean	-3.52%	1.34%	7.21%	1.89%	25.26	23.29
	Std. Deviation	4.02%		5.66%		69.88	
	Minimum	-9.93%		-4.40%		0.03	
	Maximum	0.61%		14.24%		211.22	
2013	Mean	-1.56%	1.86%	9.27%	2.11%	23.63	21.64
	Std. Deviation	5.58%		6.34%		64.91	
	Minimum	-12.83%		-2.93%		0.04	
	Maximum	4.42%		16.41%		196.34	

Source: Calculation with SPSS 20.0

Compared to traditional financial performance indicators, the value-based metrics have to be analyzed on a long-term timeframe and the focus must be oriented on the evolution trend, not especially on the absolute values.

Table no. 13. Correlation matrix

Overall correlation

		ROIC	ROA	Price
Price	Pearson Correlation	.188	.237	1
	Sig. (2-tailed)	.347	.234	

Correlation with price, per year

	2011	*2012*	*2013*
ROIC	0.150	0.292	0.200
ROA	0.238	0.260	0.243

Source: Calculation with SPSS 20.0

Unexpected, the result show a stronger correlation between ROA and the market-share price, compared with the ROIC value vs market-share price. This situation can be explained, mainly, by the transitory accruals generated by transition to IFRS adoption, reflected on the 2012 and 2013 financial year figures (Burca & Cotlet, 2014). Thus, financial statements like provisions for uncertain receivables, an increase use of fair value convention for assets measurement and especially assets reclassifications, have generated visible accounts differences. The influence of assets reclassification can be observed by the Pearson Correlation coefficient evolution, as the variance in case of ROIC is larger, compared to the ROA correlation coefficient.

Conclusion

Financial performance analysis raises numerous limitations of financial statements because of more complex business models. Additionally, in case of the Romanian economic environment, the financial reporting process transforms into a real trade-off between market incentives versus fiscal incentives. As our capital market is still at a lower level of information efficiency, it is obvious that currently the fiscal rule prevalence persist on drawing the accounting policies. Consequently, earnings management, limited by a stronger enforcement framework, hunts any potential fiscal economies, deterring significantly the accounts.

As a partial solution, especially in case of management remuneration, investors have begun to use new metrics for financial performance measurement, focused more on shareholder value creation, rather than patrimony conservation. Thus, metrics like EVA, economic profit or cash value added have revealed a different financial reality of companies' financial figures.

Our study provides evidence with significant difference between the traditional financial performance metrics and the new value-based ones. Main impact was generated by transitory accruals determined on transition of financial reporting to IFRS. A second factor, but not less important, is the fiscal pollution of the accounting treatments. Also, the accounting system incapability to manage uncertainty in order the accounting figures to reflect a true and fair view of financial situation is considered on the top of the factors explaining the differences between the two types of financial performance metrics.

There are limitations of our study, as our sample consists of only 9 companies from just two economic areas. Also, the timeframe for value-based metrics is still short, as these key indicators are recommended to be analyzed on a long-term perspective, using financial forecast. Further research can be realized in order to establish an econometric relation between value-based metrics vs share-market price, in contrast to relation between traditional accounting measures vs share-market price. Moreover, the methodology research can be improved by extending the accounting adjustment operated on EVA calculation. Additionally, analysis is opportune to be done towards application of the new value-based metrics in case of unlisted companies.

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