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Executive compensation and comprehensive income: evidence from Polish listed companies

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Abstract

Research background: The literature of economics presents the agency problem, which can be mitigated through executive compensation, especially when it is connected with company profits. This relationship has been repeatedly analysed in the corporate governance literature, which shows both positive and negative correlations between these categories. Thus, another approach is presented with comprehensive income, which (in contrast to net income) is generally beyond the control of managers and hinders active earnings management.

Purpose of the article: This article presents the evaluation of three stages of the relationship between executive compensation and profitability ratios (RoS, RoA, RoE), which are based on comprehensive income and net income. The main research hypothesis states that in economic practice, it can be assumed that there is a stronger positive correlation between executive compensation and comprehensive income than net income.

Methods: The research covered companies listed on the WSE from the industry sector (between 2009 and 2017). The first part of the paper contains the results of correlations between profitability ratios and executive compensation (conducted by means of Pearson's correlation coefficient). The second part presents the results of three regression models in two versions — the influence that RoS, RoA and RoE have on companies' executive compensation, based on comprehensive income and net income.

Findings & Value added: The analysed companies were characterised by a diversity correlation between the executive compensation and profitability ratios calculated with net profit and com-

prehensive income. Nevertheless, it must be stressed that the results of the estimation show, in this case, the slightly greater role of comprehensive income than net profit. One can emphasise a certain advantage of comprehensive income over net profit, as the former can inhibit the effects of managers' intentional influence on the value of the reported earnings.

Introduction

The question of how to manage executive compensation and the extent of pay-for-performance belongs to both the theory and practice of corporate governance in companies, in which issues concerning the relationship between the level of executive compensation and firm performance play a significant role and have considerable importance. This question has been one of the most widely studied problems in the corporate governance literature (Frye, 2004, pp. 31–54; Jensen & Murphy, 1990, pp. 225–264). The theoretical reference adopted by most of the works is agency theory. According to this theory, the executive compensation policy is seen as a governance mechanism acting to resolve conflicts of interest between managers (agents) and shareholders (principals) and to improve business performance. Executive compensation, as well as other financial and non-financial indicators, is a crucial subject for shareholders to assess, as their interests are often at odds with the interests of the managers.

It must be emphasised that in the last few decades, there has been no general consensus in the literature on the relationship between executive compensation and firm performance, particularly regarding accounting measures. Several studies have found a positive relationship between these categories (Benito & Conyon, 1999, pp. 117–136; Hall & Leibman, 1998, pp. 653–691; Jensen & Murphy, 1990, pp. 225–264; Kato & Kubo, 2006, pp. 1–19; Lewellen & Huntsman, 1970, pp. 710–720), others have found no relationship (Bebchuk & Fried, 2003, pp. 71–92; Brick *et al.*, 2006, pp. 403–423; Core *et al.*, 1999, pp. 371–406; Dogan & Smyth 2002, pp. 319–347; Ozkan, 2007, pp. 349–364). However, the financial crisis of 2007–2009 radically exposed the weakness of corporate governance systems, particularly in the scope of the executive compensation policy (Erkens *et al.*, 2012, pp. 389–411).

The primary purpose of this study is to examine the character and strength of the relationship between executive compensation and profitability ratios (RoS, RoA, RoE), which are based on comprehensive income and net income. The sample concerns stock companies from the industry sector listed on the Warsaw Stock Exchange (WSE). In order to accomplish that aim, a general research hypothesis was formulated, which assumes that there is a stronger positive correlation between executive compensation and

comprehensive income than net income. The scope of comprehensive income, which is presented in the statement of comprehensive income, has a much wider capacity than net profit and contains many important elements which affect the companies' future profitability and which are omitted in the traditional income statement (Kanagaretman *et al.*, 2009, p. 352). Moreover, the publication of other comprehensive income components is necessary for shareholders (principals) who, on the basis of this information, can assess some of the managerial activities more accurately and are able to recognize the managers' (agents') engagement in both earnings management (Chambers *et al.*, 2007, p. 561) and the manipulation of executive compensations. The above supposition results from the conjecture that the disclosure of other comprehensive income components with their changes, some of which are omitted when only the net profit (loss) is calculated, enables shareholders to examine the external and internal determinants of the company's profitability more completely and accurately.

This article is structured in four parts. In the first section, there is a brief review of existing studies that have examined the relationship between executive compensation and firm performance. The views expressed in the second part contain theoretical deliberations over the advantages and disadvantages of comprehensive income as a measure of a company's profitability in comparison to net income. The third part outlines the methodology deployed, which includes Pearson's correlation coefficient and three regression models in two versions — the influence of RoS, RoA and RoE on companies' executive compensation (based on comprehensive income and net income). The analysis of the empirical results based on industry-sector companies listed on the WSE (between 2009 and 2017) is shown in the last part.

Literature review

Executive compensation and firm performance

The level of remuneration for chief executive officers (CEOs) is an extremely significant problem, both in the theory and practice of corporate governance, which is understood as a system in which companies are managed and regulated in order to increase the shareholder value and realise the expectations of other stakeholders (Iwu-Egwuonwu, 2010, pp. 190–198). In this context, the principal-agent problem (i.e. agency theory), which is a conflict between the firm's shareholders and its executives, plays a significant role in the corporate governance system. Agency theory describes the

relationship between the principals and agents and explains the best way to organize relationships in which one party (the principal) determines the work, and which another party (the agent) performs or makes decisions on behalf of the principal (compare Schroeder *et al.*, 2011). According to agency theory, executive compensation should be designed to align the interests of the managers (agents) with those of the shareholders (principals) (Jensen & Murphy, 1990, pp. 225–264). In other words, it is assumed that the CEO's pay is strongly correlated with the results of their work, which makes it possible to reduce conflicts between the agents and principals and can bring together the interests of both groups.

One of the areas of corporate governance that allows shareholders to better assess management quality is the transparency of executive compensation, especially in the context of firm performance. This assumption raises many doubts, and manager compensation systems, especially regarding the amount, constitute one of the most criticised elements of corporate governance (compare Erkens *et al.*, 2012, pp. 389–411). It is widely accepted that both the level and the dynamics of executive compensation do not show any connection with a company's economic results. Inappropriate CEO pay policies have also been identified as one of the key factors leading to the financial crisis. In the light of the controversy related to executive compensation and evidence of the ineffectiveness of the existing corporate governance mechanisms, the role of shareholders in monitoring CEOs' pay has increased significantly. Thus, the principles of management remuneration policies, among others, have been an essential element of the reform of the corporate governance system. The CEO's pay system which is connected with the firm's performance has become the basis for the EU and national recommendations, particularly in listed companies.

The relationship between executive compensation and firm performance has been examined in many previous empirical papers, with mixed findings. In the literature, there is no general consensus on the relationship between executive pay and firm performance. Indeed, existing empirical studies reported both a positive and negative relationship between the level of executive compensation and the key financial performance of companies.

For example, Lewellen and Huntsman (1970, pp. 710–720), on the basis of 50 US firms at three-year intervals between 1942 and 1963, found strong evidence that executives' compensation is heavily dependent on the firm's profits. They reported that firm profits and stock market values are substantially more important in determining executive compensation than firm sales. On the basis of other empirical research carried out in the 1980s among US companies (between 1974 and 1986), Jensen and Murphy (1990, pp. 225–264) reported that firm performance positively influences execu-

tive pay. Hall and Leibman (1998, pp. 653–691) confirmed Jensen and Murphy's statement. Similarly, Benito and Conyon (1999, pp. 117–136) showed these low pay performance sensitivities too.

Kato and Kubo (2005, pp. 1–19) documented the positive relationship between the CEO's pay and company performance in public listed companies in Japan. They used data from the period 1986–1995 and found that remuneration in cash (salary and bonus) was sensitive to firm performance, particularly based on the accounting measures, whereas Makinen (2005), who used data from the period 1996–2002, argued that the relationship between total executive pay and market performance is very important, although there is no correlation with the accounting performance (e.g. RoA). On the other hand, the performances based on market ratios were less important. Boschen and Smith (1995, pp. 577–608) examined the relationship between the CEO's pay and a firm's past as well as contemporaneous stock market returns on the basis of 16 US companies between 1948 and 1990. They concluded that past market performance had a significant influence on the current executive compensation, but the effect was not permanent.

In contrast to this research, other studies have found no relationship between executive pay and a firm's performance (Dogan & Smyth 2002 pp. 319–347; Brick *et al.*, 2006, pp. 403–423). Similarly, Core *et al.* (1999, pp. 371–406) concluded that the CEO's pay has a negative association with operating performances as well as stock returns. Although Ozkan (2007, pp. 349–364) pointed out that firm performances have a positive influence on director compensations, it is insignificant. Bebchuk and Fried (2003, pp. 71–92) reported that executive compensation was not closely tied to a firm's performance.

A few empirical studies of the relationship between CEO pay and firm profits have also been conducted in Polish listed companies (e.g. Rudolf *et al.*, 2002; Urbanek, 2006), but the results are equally ambiguous as the results of the foreign research.

Comprehensive income and net income as a measure of a company's profitability

By creating a performance-based remuneration system, one can use objective measures (such as sales, incomes, profits) or subjective measures (such as the estimated "value" of an employee for an enterprise) (Baker *et al.*, 1998, pp. 593–616). Bearing in mind the objective measures, we should ask ourselves what kind of company performance should be taken into account. It might seem that measures based on net profit (net income) are the

most relevant, because the net profit is connected with the concept of operating profit, namely the measure of the efficiency of the company and its management (Hendriksen & Van Breda, 2002, pp. 294–295). Net income (NI) has many advantages (e.g., it is easy to use, understandable, based on financial statements, easy to find the information for their calculation, etc.). What is more, the income statement shows only the effects of transactions that are directly related to the earnings. Other changes in the value of assets or liabilities are transferred to the statement of changes in equity, or directly to the balance sheet. Such actions are called "dirty surplus accounting", and are often difficult to identify for users of financial statements. It may significantly facilitate a managers' actions which are aimed at manipulating profits and the active management of earnings. This is understood as a deliberate intervention in the process of preparing financial statements with the intention of achieving individual or private goals (Bagnoli & Watts, 2011, pp. 477–509).

The presentation of comprehensive income in financial reporting is related to the use of the valuation model, in which "clean surplus accounting" is applied. According to the concept of comprehensive income, this profit is understood as an increase in the wealth of the owners. The profit arises when the value of net assets (equity) at the end of the accounting period is higher than their value at the beginning of the period. Not only does the scope of comprehensive income have a broader problem area in comparison to net profit, but it also contains a number of significant effects of the value creation process and factors that drive the firm's future performance (compare Sajnóg, 2017, pp. 490–491).

It is worth emphasising that comprehensive income (CI) is comprised of net income (NI) and other comprehensive income (OCI), which consists of profits or losses not included in the net earnings but in the equity. The insightful characterisation of all OCI components makes it possible to state that all of them are characterised by a lack of durability over time, and almost all are beyond the control of managers, which hinders manipulation and active earnings management (Rees & Shane, 2012, pp. 796–797).

The scope of the OCI, which is presented in the statement of comprehensive income, has a much wider capacity than net profit and contains many important elements that affect a company's future profitability that are omitted in the traditional income statement (Sajnóg, 2017, p. 490). It can, therefore, be emphasised that its potentially wider information range and scope create satisfactory information conditions for shareholders, which may significantly impede the managers' actions aimed at the manipulation and active shaping of remuneration.

However, the practical application of comprehensive income in studying the profitability of enterprises and the performance-based compensation system creates a range of difficulties and proves to be highly controversial (compare Sajnóg, 2017, pp. 491–492). In the literature, one can find a number of arguments to justify both the greater and the negligible role of comprehensive income in comparison to net income (see Table 1).

Leaving aside the above-mentioned discussions, it can be assumed that reporting comprehensive income, together with the presentation of its components, results from the necessity to present fully information, which properly reflects the various implemented strategies of equity management. The publication of the comprehensive income components is indisputably necessary for shareholders who, on the basis of this information, can assess some of the managerial activities more accurately and recognise the managers' engagement in upward earnings management.

Research methodology

The empirical studies were carried out on a group of companies listed on the Warsaw Stock Exchange (WSE) from the industry sector¹ (4XX in the sectoral classification of the WSE) and which present their financial statements in accordance with IFRS (for 10th November 2018). The study period is from 2009 to 2017 because, since 2009, Polish public companies have been required to present a statement of comprehensive income. The thorough analysis covered annual financial statements of companies, or, if necessary, management reports and reports on corporate governance. The empirical data was taken from the EMIS database and the companies' websites. From the total sample of 113 industrial companies, those which did not present information about comprehensive income were excluded, leaving a final sample consisting of 86 firms with 719 observations².

The research was conducted based on an evaluation of the profitability of the analysed companies by means of the traditional three-ratio analysis — RoS, RoA and RoE, based on two different accounting measures — CI and NI. The total amount of the executive compensation (EC) is understood

¹ Industrial companies are represented more than any other sector on the WSE. What is more, this type of limitation enables us to avoid the issue of sample heterogeneity when assessing the relationship between executive compensation and firm profitability.

² Due to the quantitative approach to the lack of data, these deficiencies in the analysis were removed in pairs. In addition, due to the small scale of extreme values, they were not excluded from the research sample.

to include all short-term factors and long-term compensation that were disclosed in the annual reports.

The empirical research is structured in three parts. The first part includes key descriptive statistics of characterisation. The second part contains the results of the correlations between net profit and comprehensive income and the profitability ratios (conducted by means of Pearson's correlation coefficient). The third part presents the results of three regression models (with RoS, RoA and RoE) in two versions (the influence of CI and NI on EC)³ (see Table 2).

The main variables that the author is interested in are the three ratios of profitability (RoS, RoA, RoE), calculated as a value of comprehensive income and net profit, standardised accordingly by the value of sales, the average value of total assets, and equity. Considering that the financial effectiveness of a company is determined by its profitability, both incomes were adjusted for the companies' accounting measures to separate them from the influence of business volume. In line with this approach, and based on prior research (Bratten *et al.*, 2016, pp. 289–291), the exponential version of the models was used. As a result, the natural logarithm of executive compensation (as well as the other variables in absolute values) was also calculated.

In accordance with the hypothesis, coefficient α_1 on the ratios of profitability was analysed, and a more positive and statistically significant value was expected, based on comprehensive income rather than net income. In line with the suggestions of prior research (Zhou, 2000; Joe Ueng *et al.*, 2000), another very important factor exerting an influence on executive compensation was also controlled for. Specifically, the natural logarithm of total assets as a proxy of the firm size (SIZE) was used. A positive and statistically significant value of coefficient α_2 was also expected. Additionally, the dummy variable and the multiplicative interaction term (Braumoeller, 2004) controls for a more timely recognition of losses in comparison to gains were used, which is often referred to as conditional conservatism.

Results

The key descriptive statistics of the variables used in the analyses (executive compensation, profitability ratios, firm size) are presented in Table 3.

³ Panel Least Square (unbalanced) model using year fixed-effects regression was employed.

The sample firms represent the full spectrum in terms of executive compensation because the level of EC varies significantly, ranging from 3.18 to 8.05, with a mean of 5.93, median of 5.99 and standard deviation of 0.70. This variability is also demonstrated by the spread between the first and third quartile (interquartile range).

It is worth emphasising that for all variables (excluding SIZE), the median is greater than the mean, which indicates that the values of the analysed observations are usually higher than the average (data are skewed to the left).

As can be seen from the table 3, the industrial companies have both a positive and negative value of RoS, which is calculated using comprehensive income and net income. The level of this variable ranges from -9.84 to 9.72 (for RoS_CI) and from -9.84 to 8.76 (for RoS_NI), with a median of 0.04. The descriptive statistics show the means of RoA_CI, RoA_NI and RoE_CI, RoE_NI to be 0.01 and 0.03, respectively. It is worth emphasising that the averages of return on assets and return on equity are positive, in contrast to return on sales. However, the distribution of RoS is much greater than RoA or RoE. Generally, one cannot observe slight differences between the ratios calculated with comprehensive income and net income. The average SIZE is about 12.24, and it varies from 7.35 to 15.56, with a median of 12.20.

Table 4 presents the correlation matrix reporting the pairwise correlation coefficients between the variables. Pearson's coefficient generally shows positive dependencies between executive compensation and other variables.

However, there is little evidence of a strong connection between EC and profitability ratios because the correlations between them are very weak, but statistically significant, except for RoS. What is important is that there are slightly stronger correlations between EC and RoA calculated with comprehensive income than net income, in contrast to RoE. It can report a moderate uphill relationship between EC and SIZE, and additionally, this is statistically significant.

To confirm or refute the hypothesis of the relationship between executive compensation and profitability ratios, a regression analysis was carried out, the results of which are shown in Table 5. The three models fit the report adjusted R-squared of 0.27 (M1A and M1B), 0.29 (M2A), 0.28 (M2B, M3A and M3B). The F-statistic is statistically significant in all versions.

The regression analysis results show that there is a strong positive relationship between executive compensation and firm performance when the measurement is done by taking EC as a dependent variable and RoA as an independent variable. What is important is that there is a slightly stronger

relationship between EC and RoA calculated with comprehensive income (with a coefficient on RoA_CI of 0.587) than net income (0.490). The t-statistics were significant at the 0.05 critical alpha level in both cases. However, for both RoE_CI and RoE_NI, the t-statistics were not significant at the 0.05 critical alpha level. One can observe a negative relationship between EC and RoS, but the t-statistics were not significant either. It was observed that SIZE positively influences executive compensation, irrespective of all model specifications and estimators (it is worth pointing out they were statistically significant). With respect to control variable DNeg, all coefficients, except for DNeg_CI in the M2A model, are negative and statistically insignificant.

Discussion

The system of remuneration and motivation of managers, in particular, may be recognised as the key factor in the success or failure of a company. However, in practice, one can notice many cases where CEOs receive low remuneration for high performances or excessively high pay for somewhat indifferent achievements, especially when they have brought enterprises to a crisis situation (e.g., in Enron in 2001). Therefore, for more than a decade, CEO pay has attracted unfavourable attention from practitioners, academics and the media, who have focused on the large amount of pay received by CEOs (Yatim, 2012).

Based on the sample of 86 industrial listed companies on the WSE from 2009 until 2017, one can notice a significant positive relationship between executive compensation and return on assets. The significant amount that was presented in the correlation and regression analyses shows the same results, which is consistent with the findings from previous studies (Core *et al.*, 1999; Merhebi *et al.*, 2006; Kato and Kubo, 2006). One can observe a slightly stronger relationship between these variables if the comprehensive income was used in this ratio. Therefore, in this case, the hypothesis can be partially confirmed. On the other hand, the regression analysis shows that the relationship between EC and RoE was positive, which was also observed by Sigler (2011), with a sample of 280 firms listed on New York Stock Exchange (NYSE) between 2006 and 2009; however, the regression coefficients were statistically insignificant. The relationship between EC and RoS was the most surprising because it was both negative and statistically insignificant. This result is totally different compared to similar studies by Nulla (2012), who showed a slightly positive relationship between these two variables. It is noteworthy that the significant positive

relationship between the size of the firm and profitability ratios was shown in the correlation and regression analysis. The same was reported by Zhou (2000), and Ryan and Wiggins (2001) (from the US market).

Conclusions

Based on the empirical results and findings, one cannot clearly confirm the hypothesis that there is a stronger positive correlation between executive compensation and comprehensive income than net income. Although the literature gives many advantages of comprehensive income in financial statement reporting compared to net income, the usefulness of this category for financial management in practice, especially in the area of corporate governance, seems questionable.

The empirical results for WSE-listed industrial companies demonstrate the existence of both positive and negative relationships between executive compensation and financial performances, and importantly, it is statistically insignificant. Perhaps it results from the fact that the spread between comprehensive income and net income is not significant in the industry sector. However, the analysis of a limited group of companies representing only one sector is not enough to make general sweeping statements. Analysis with different sectors, especially finance or banking, could reveal different results.

In future studies, many other variables could be more relevant and might affect pay-performance relationships. For example, one could include the corporate governance policy, the structure and age of managers, risk, stock return, and many other factors. Thus, in summary, this paper should be treated as an initial contribution to further studies on the usefulness of financial reporting in financial management which is focused on comprehensive income and its components.

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Annex

Table 1. The advantages and weaknesses of the comprehensive

Advantages of CI in comparison to NI	Weaknesses of CI in comparison to NI
CI is more consistent with the price of shares and return on investment (Kanagaretnam <i>et al.</i> , 2009), return on stocks (Dhaliwal <i>et al.</i> , 1999) and return on shares (Biddle & Choi, 2006).	NI is more strongly associated with return on shares (Barton <i>et al.</i> , 2010), and its amount is a better reflection of the company's final performance (Liu & Thomas, 2000).
CI has more power in predicting future net earnings (Choi & Zang, 2006).	Investors still use NI for information, valuation and prediction purposes (Goncharov & Hodgson, 2011).
The reporting of OCI in a separate statement helps analysts to detect the practice of earnings management (Hirst & Hopkins, 2007).	Components of OCI are useful in different ways in the creation of enterprise value (Louis, 2003).
CI is characterised by higher resistance to managers' manipulation (Chambers <i>et al.</i> , 2007).	NI is a more important measure in terms of management contracts (Biddle & Choi, 2006).

Table 2. Analytical forms of applied single equation models

Model version	Analytical form
M1A	$EC_t = \alpha_0 + \alpha_1 RoS_CI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_CI_t + \mu_t$
M1B	$EC_t = \alpha_0 + \alpha_1 RoS_NI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_NI_t + \mu_t$
M2A	$EC_t = \alpha_0 + \alpha_1 RoA_CI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_CI_t + \mu_t$
M2B	$EC_t = \alpha_0 + \alpha_1 RoA_NI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_NI_t + \mu_t$
M3A	$EC_t = \alpha_0 + \alpha_1 RoE_CI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_CI_t + \mu_t$
M3B	$EC_t = \alpha_0 + \alpha_1 RoE_NI_t + \alpha_2 SIZE_t + \alpha_3 DNeg_NI_t + \mu_t$

Marks:

EC_t – natural logarithm of executive compensation,

RoS_CI_t, RoS_NI_t – return on sales (accordingly based on *CI* or *NI*),

RoA_CI_t, RoA_NI_t – return on assets (accordingly based on *CI* or *NI*),

RoE_CI_t, RoE_NI_t – return on equity (accordingly based on *CI* or *NI*),

$SIZE_t$ – firm size (natural logarithm of total assets),

$DNeg_CI_t, DNeg_NI_t$, – dummy variables taking the value of 1 when *CI* is negative or *NI* is negative, respectively, and 0 otherwise.

Table 3. Descriptive statistics

Specification	Mean	Median	Std. Dev.	Min	Max	Q1	Q3
<i>EC</i>	5.927	5.986	0.703	3.178	8.051	5.529	6.390
<i>RoS_CI</i>	-0.004	0.040	0.944	-9.844	9.715	0.007	0.079
<i>RoS_NI</i>	-0.006	0.038	0.896	-9.844	8.758	0.006	0.078
<i>RoA_CI</i>	0.014	0.033	0.169	-1.480	1.231	0.006	0.066
<i>RoA_NI</i>	0.012	0.031	0.182	-2.369	1.231	0.005	0.066
<i>RoE_CI</i>	0.034	0.061	0.445	-3.195	7.056	0.011	0.124
<i>RoE_NI</i>	0.029	0.058	0.476	-5.990	7.053	0.010	0.122
<i>SIZE</i>	12.243	12.196	1.126	7.355	15.562	11.573	12.819

Marks:

EC – natural logarithm of executive compensation,

RoS_CI, *RoS_NI* – return on sales (accordingly based on *CI* or *NI*),

RoA_CI, *RoA_NI* – return on assets (accordingly based on *CI* or *NI*),

RoE_CI, *RoE_NI* – return on equity (accordingly based on *CI* or *NI*),

SIZE – natural logarithm of total assets.

Table 4. Correlation matrix

Specification	<i>EC</i>	<i>RoS_CI</i>	<i>RoS_NI</i>	<i>RoA_CI</i>	<i>RoA_NI</i>	<i>RoE_CI</i>	<i>RoE_NI</i>	<i>SIZE</i>
<i>EC</i>	1.000							
<i>RoS_CI</i>	0.034	1.000						
<i>RoS_NI</i>	0.024	0.974***	1.000					
<i>RoA_CI</i>	0.193***	0.469***	0.459***	1.000				
<i>RoA_NI</i>	0.186***	0.412***	0.431***	0.963***	1.000			
<i>RoE_CI</i>	0.091**	0.109***	0.097***	0.151***	0.181***	1.000		
<i>RoE_NI</i>	0.095**	0.094**	0.098***	0.184***	0.273***	0.970***	1.000	
<i>SIZE</i>	0.513***	0.024	0.021	0.112***	0.116***	0.058	0.066*	1.000

*, ** and *** represent statistical significance at the 0.1, 0.05, and 0.01 levels.

Table 5. Results of panel least squares regression

Specification	Coefficient	t-Statistic	Prob. (t-Statistic)	Adjusted R-squared	F-Statistic	Prob (F-Statistic)
M1A						
Intercept	1.902	7.293	0.000			
<i>RoS_CI</i>	-0.003	-0.134	0.894	0.269	87.634	0.000
<i>SIZE</i>	0.330	15.687	0.000			
<i>DNeg_CI</i>	-0.130	-2.148	0.032			
M1B						
Intercept	1.896	7.278	0.000			
<i>RoS_NI</i>	-0.010	-0.387	0.699	0.269	87.515	0.000
<i>SIZE</i>	0.330	15.724	0.000			
<i>DNeg_NI</i>	-0.130	-2.155	0.032			

Table 5. Continued

Specification	Coefficient	t-Statistic	Prob. (t-Statistic)	Adjusted R-squared	F-Statistic	Prob (F-Statistic)
M2A						
Intercept	1.829	7.001	0.000			
<i>RoA_CI</i>	0.587	3.691	0.000	0.287	96.391	0.000
<i>SIZE</i>	0.333	15.757	0.000			
<i>DNeg_CI</i>	0.003	0.039	0.969			
M2B						
Intercept	1.834	7.013	0.000			
<i>RoA_NI</i>	0.490	3.412	0.001	0.284	95.300	0.000
<i>SIZE</i>	0.333	15.739	0.000			
<i>DNeg_NI</i>	-0.014	-0.214	0.830			
M3A						
Intercept	1.808	6.866	0.000			
<i>RoE_CI</i>	0.073	1.367	0.172	0.275	91.001	0.000
<i>SIZE</i>	0.337	15.844	0.000			
<i>DNeg_CI</i>	-0.110	-1.854	0.064			
M3B						
Intercept	1.805	6.860	0.000			
<i>RoE_NI</i>	0.069	1.394	0.164	0.275	90.855	0.000
<i>SIZE</i>	0.337	15.862	0.000			
<i>DNeg_NI</i>	-0.106	-1.797	0.073			