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THE VALUE RELEVANCE OF ACCOUNTING INFORMATION IN TRANSITION TO IAS/IFRS: THE CASE OF INDONESIA

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ABSTRACT

The objective of this research is to present some preliminary evidence for the information content of earnings and book values during transition era to IAS/IFRS in Indonesia, from 1994 to 2009. Sample of this research consists of firms listed in Indonesian Stock exchange in which stock prices, earnings, and book values are available for the study period 1994 to 2009. Data are divided into two periods, namely 1995 to 2000 period and 2001 to 2009 period because there is no or little adoption of IFRS by IIA during the first period. Data ate analyzed by using multiple regressions. This research finds that value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption. This research also finds that equity book values and earnings have value relevance when both equity book values and earnings are positive. However, both equity book values and earnings do not have value relevance when both equity book values and earnings are negative.

Keywords: value relevance, earnings, equity book value, IFRS

JEL Classification: M41

INTRODUCTION

The objective of financial accounting is to provide relevant accounting information for users of financial statements to make effective and efficient decisions. According to International Accounting Standard Board conceptual framework, the objective of financial statements is to provide information about financial position, performance, and changes in financial position of an entity that is useful to wide area of users in making economic decisions. A good accounting information system will result in accounting information that is useful for users to make sound decision. Investors are the most important group of decision makers who use accounting information. Therefore, it is very important to investigate the extent to which the relevance of accounting information to value companies.

The Indonesian Institute of Accountants (IIA) was aware that implementation a set of high quality standards such as IAS/IFRS will improve comparability of financial statements among companies in the world. In 1994, Indonesian Accountants Association started to converge with IAS/IFRS by adopting IASC's framework for the Preparation and Presentation of Financial Statements as the conceptual framework for Indonesian GAAP. Since that year, an increasing number of IAS/IFRS has been adopted with no or few modi-

fications. Therefore, most of Indonesian GAAP is now based on IAS/IFRS. The Indonesian Institute of Accountants plans that IAS/IFRS can be fully applied since 2012.

Before 1994, Indonesian GAAP was influenced by US GAAP. US GAAP tends to be conservative and apply historical cost principles. Conservative and historical costs principles are to ensure that the value of firm will not be higher than its intrinsic value. Therefore, under Indonesian GAAP before 1994, the firm value that is reflected in financial statements seems to be lower than the intrinsic firm value. However, IAS/IFRS that were adopted by Indonesia since 1994 tends to improve relevance quality of accounting information. Conservatism principle is not mentioned as a qualitative characteristic in IASB conceptual framework and also in conceptual framework of Indonesian GAAP, and most cases the historical cost principle is substituted by fair value principle. These changes can alter the valuations properties of accounting information in financial statements. The application of fair value principle can lead firm value to be closer to intrinsic value, so that financial statements provide more value-relevant accounting information to stockholders. Therefore, the gradual adoption of IAS/IFRS from 1994 until today will gradually improve the value-relevant of accounting information. Based on the description in background above, it is interesting to examine the influence of IAS/IFRS adoption on the value relevance of accounting information in Indonesia. And, contributions of this research are that research will give preliminary findings about the influence of adopting IAS/IFRS on the value relevance of accounting information to IIA, and attempt to give explanations why IAS/IFRS adoption increases or decreases the value relevance of accounting information.

LITERATURE REVIEW AND METHOD

Agency theory suggests that the firm can be viewed as a nexus of contracts between resource holders. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents. The primary agency relationships in business are between stockholders and managers and between creditors and stockholders. Agency theory assumes that people are self-interest, therefore there agency conflict between participants. When agency problems occur, it results in to agency costs, which are expenses incurred in order to sustain an effective agency relationship.

Agency theory raises a fundamental problem in organizations, namely self-interested behavior. A corporation's managers have personal interests that compete with the owner's interests of maximization of stockholder wealth. Since the stockholders give decision making authority to managers for managing the firm's resources. Therefore, a potential conflict of interest exists between them. Agency theory suggests that, in imperfect labor and capital markets, managers will seek to maximize their own utility at the expense of company stockholders. Managers have the ability to act in their own self-interest rather than in the best interests of the stockholders because of asymmetric information and uncertainty. Information asymmetry here is that managers know more or better than stockholders about the company condition and prospect. Uncertainty means that myriad factors contribute to final outcomes, and it may not be evident whether the agent directly caused a given outcome, positive or negative.

Evidence of self-interested behavior by managers involves the utilization of some company resources in the form of perquisites. Outside investors recognize that the firm will make decisions contrary to their best interests. Therefore, outside investors will discount the prices they are willing to pay for the company's stock. Agency costs are defined as those costs borne by shareholders to encourage managers to maximize shareholder wealth rather than behave in their own self-interests. There are three major types of agency costs, namely monitoring costs, bonding costs, and residual loss.

IFRS are accounting standards that are issued by the International Accounting Standards Board (IASB), an independent organization based in London, UK. They purport to be a set of rules that ideally would apply equally to financial reporting by public companies worldwide. Between 1973 and 2000, international standards were issued by the IASB's predecessor organization, the International Accounting Standards Committee (IASC), a body established in 1973 by the

professional accountancy bodies in Australia, Canada, France, Germany, Japan, Mexico, Netherlands, United Kingdom and Ireland, and the United States. During that period, the IASC's rules were described as "International Accounting Standards" (IAS). Since April 2001, this rule-making function has been taken over by a newly-reconstituted IASB The IASB describes its rules under the new label "International Financial Reporting Standards" (IFRS), though it continues to recognize the prior rules (IAS) issued by the old standard-setter (IASC). The IASB is better-funded, better-staffed and more independent than its predecessor, the IASC. Nevertheless, there has been substantial continuity across time in its viewpoint and in its accounting standards (Ball, 2006). In recognition of the quality of the core set of IAS, in 2000 the International Organization of Securities Commissions recommended that the world's securities regulators permit foreign issuers to use IAS for cross-border offerings. In 2005, almost all publicly listed companies in Europe and many other countries are required to prepare financial statements in accordance with International Financial Reporting Standards (IFRS).

The objective of the IASC and IASB is to develop an internationally acceptable set of high quality financial reporting standards. To attain this objective, the IASC and IASB have issued principles-based standards, and taken steps to remove allowable accounting alternatives and to require accounting measurements that better reflect a firm's economic position and performance. Limiting alternatives can increase accounting quality because doing so limits management's opportunistic discretion in determining accounting amounts (Ashbaugh and Pincus, 2001). Accounting figures that better reflect a firm's underlying economics, either resulting from principles-based standards or required accounting measurements, can increase accounting quality because doing so provides investors with information to aid them in making investment decisions. These two sources of higher accounting quality are related in that, all else equal, limiting opportunistic discretion by managers increases the extent to which the accounting amounts reflect a firm's underlying economics. Accounting standards that limit opportunistic discretion result in accounting earnings that are more reflective of a firm's underlying economics and higher quality. Accounting quality can also increase because of changes in the financial reporting system contemporaneous with firms' adoption of IAS, e.g., more rigorous enforcement. Thus, accounting figures resulting from application of IAS/IFRS are of higher quality than those resulting from application of domestic standards.

IAS/IFRS tend to use fair values than historical costs for accounting measurement. Using fair value for accounting measurement is to achieve relevance quality. Another accounting standard, US GAAP, tends to use conservative and historical cost principles. These principles are to ensure that the firm value will not be higher than its intrinsic value. However, conservatism principle is not mentioned as a qualitative characteristic in IASB conceptual framework, and most cases the historical cost principle is replaced by fair value principle. These changes can change the valuations properties of accounting information in financial statements. Using fair value principle can lead firm value to be closer to intrinsic value, so that financial statements provide more value-relevant accounting information for outside shareholders.

Financial statements are prepared by the managers of companies to investors and other users. The managers are the agents of the stockholders to use the resources entrusted to them and earn return. The managers have access to more information than the stockholders. The financial statements are presented to reduce the information asymmetry between stockholders and managers. Leuz and Verrechhia (2000) studies the reduction in information asymmetry by examining the impact of adoption of IFRS on the volatility of returns, trading volumes, and change in the cost of capital. Daske (2006) find that the cost of capital has actually increased for the IFRS adopters. This research finds that the information asymmetry has increased with the adoption of IFRS.

The ability of IAS/IFRS to achieve a high accounting is questioned by some researchers. Barth *et al.* (2008) stated that there may not be true that application of IAS/IFRS is associated with higher accounting quality, at least for two reasons. IAS may be of lower quality than domestic standards. For example, limiting managerial discretion relating to accounting alternatives could eliminate the firm's ability to report accounting measurements that are more reflective of its economic position and performance. In addition,

the inherent flexibility in principles-based standards could provide greater opportunity for firms to manage earnings, thereby decreasing accounting quality. This flexibility has long been a concern of securities markets regulators, especially in international contexts. Although IAS are higher quality standards, the effects of features of the financial reporting system other than the standards themselves could eliminate any improvement in accounting quality arising from adopting IAS. Tax enforcement can result in limited compliance with the standards, thereby limiting their effectiveness. Ball, Robin, and Wu (2003) investigate timely loss recognition for firms in Hong Kong, Malaysia, Singapore, and Thailand. In these countries, accounting standards are largely derived from common law and, therefore, likely are similar to IAS. They find that timely loss recognition for firms in these countries is no better than it is for firms in code law countries. They attribute this finding to differing incentives of managers and auditors. Burgstahler, Hail, and Leuz (2006) discover that strong legal systems are associated with less earnings management. The study attributes this finding to different incentives created by market pressures and institutional factors to report earnings that reflect economic performance.

Ball (2006) argues that there are direct and indirect advantages of IFRS for investors. Widespread international adoption of IFRS offers equity investors a variety of potential advantages. There are five advantages as follow 1) IFRS promise more accurate, comprehensive and timely financial statement information, relative to the national standards they replace for public financial reporting in most of the countries adopting them, Continental Europe included. To the extent that financial statement information is not known from other sources, this should lead to more-informed valuation in the equity markets, and hence lower risk to investors; 2) Small investors are less likely than investment professionals to be able to anticipate financial statement information from other sources. Improving financial reporting quality allows them to compete better with professionals, and hence reduces the risk they are trading with a better-informed professional; 3) By eliminating many international differences in accounting standards, and standardizing reporting formats, IFRS eliminates many of the adjustments analysts historically have made in order to make companies' financials more comparable internationally. IFRS adoption therefore could reduce the cost to investors of processing financial information. The gain would be greatest for institutions that create large, standardized-format financial databases; 4) Reducing the cost of processing financial information most likely increases the efficiency with which the stock market incorporates it in prices. Most investors can be expected to gain from increased market efficiency; and 5) Reducing international differences in accounting standards assists to some degree in removing barriers to cross-border acquisitions and divestitures, which in theory will reward investors with increased takeover premiums.

In general, IFRS offer increased comparability and hence reduced information costs and also information risk to investors. IFRS offer several additional, indirect advantages to investors. Because higher information quality should reduce both the risk to all investors from owning shares and the risk to less-informed investors due to adverse selection, in theory it should lead to a reduction in firms' costs of equity capital. This would increase share prices, and would make new investments by firms more attractive, other things equal. Indirect advantages to investors arise from improving the usefulness of financial statement information in contracting between firms and a variety of parties, notably lenders and managers.

Increased transparency causes managers to act more in the interests of shareholders. In particular, timelier loss recognition in the financial statements increases the incentives of managers to attend to existing loss-making investments and strategies more quickly, and to undertake fewer new investments with negative NPVs. The increased transparency promised by IFRS also could cause a similar increase in the efficiency of contracting between firms and lenders. In particular, timelier loss recognition in the financial statements triggers debt covenants violations more quickly after firms experience economic losses that decrease the value of outstanding debt. Timelier loss recognition involves timelier revision of the book values of assets and liabilities, as well as earnings and stockholders' equity, causing timelier triggering of covenants based on financial statement variables. In other words, the increased transparency and loss recognition timeliness promised by IFRS can increase the efficiency of

contracting in debt markets, with potential gains to equity investors in terms of reduced cost of debt capital.

Ball (2006) states that there is an ambiguous area for investors about the effect of IFRS on their ability to forecast earnings. There are two schools of thought about this, as follow 1) One school of thought is that better accounting standards make reported earnings less noisy and more accurate, hence more "value relevant." Other things equal (for example, ignoring enforcement and implementation issues for the moment) this would make earnings easier to forecast and would improve average analyst forecast accuracy; 2) The other school of thought reaches precisely the opposite conclusion. This reasoning is along the lines that managers in low-quality reporting regimes are able to "smooth" reported earnings to meet a variety of objectives, such as reducing the volatility of their own compensation, reducing the volatility of payouts to other stakeholders (notably, employee bonuses and dividends), reducing corporate taxes, and avoiding recognition of losses. In contrast, earnings in high-quality regimes are more informative, more volatile, and more difficult to predict. This argument is bolstered in the case of IFRS by their emphasis on fair value accounting, as outlined in the following section. Fair value accounting rules aim to incorporate more-timely information about economic gains and losses on securities, derivatives and other transactions into the financial statements, and to incorporate more-timely information about contemporary economic losses ("impairments") on long term tangible and intangible assets. IFRS promise to make earnings more informative and therefore, paradoxically, more volatile and more difficult to forecast.

IAS/IFRS adoption seems to reduce information asymmetry between stockholders and managers. Prior literature finds a reduction of information asymmetry as evidenced by lower earnings management, lower costs of capital, and lower forecast errors. Barth et al. (2008) argue that accounting quality can be improved by elimination of alternative accounting methods that are less reflective of firms' performance and are used by managers to manage earnings. They compare earnings management for firms that voluntarily switch to IAS with firms that use domestic accounting standards. They discover that after IAS adoption, companies have higher variance of changes in net income, a higher ratio of variance of changes in net income to variance of changes in cash flows, higher association between accruals and cash flows, lower frequency of small positive net income, and higher frequency of large losses. They also investigate the value relevance of earnings by comparing the R^2 from two regressions 1) Price regressed on book value and earnings and 2) Earnings regressed on positive and negative returns.

They discover that R^2 increases after IAS adoption, providing evidence of greater value relevance for IAS earnings. Van Tendeloo and Vanstraelen (2005) study discretionary accruals of German companies adopting IAS. They find that IAS companies have more discretionary accruals and a lower correlation between accruals and cash flows. However, their usage of the Jones (1991) model in this setting may lead to measurement errors for discretionary accruals. The Jones model needs fixed assets for measurement of non-discretionary accruals. If fixed assets are revalued under IAS, non-discretionary accruals as a predicted value from revenue and fixed assets may contain errors. Intuitively, if out-of-sample revalued fixed assts are plugged in to get non-discretionary accruals, this will reduce the amount of discretionary accruals, but the effect on the absolute amount of discretionary accruals is unknown. If future depreciation expense is based on the revalued amount, asset revaluation will also change future total accruals through a higher depreciation expense. However, the change in accruals attributable to asset revaluation may be value relevant.

Leuz (2003) studies bid-ask spreads and stock turnover ratios for U.S. GAAP and IAS firms in Germany's New Market, where U.S. GAAP and IAS are the only allowed financial reporting standards. He cannot find any statistical differences in bid-ask spreads and turnover ratios across the two standards. Ashbaugh and Pincus (2001) investigate whether analyst forecast errors decrease after a firm adopts IAS. They argue that IAS adoption reduces analysts' cost of information acquisition and improves forecast accuracy, even though earnings smoothing under other accounting standards makes forecasts easier. They discover that forecast errors are positively related to the difference between a country's domestic accounting standards and IAS. After IAS adoption, forecast errors decrease and the number of news reports about

firms sample increase.

Since Ball and Brown (1968), many accounting researchers have been studying the relationships between accounting numbers and stock prices. In this section, this study briefly review recent research conducted by using Asian, European, and U.S. data. Collins *et al.* (1997) investigate systematic changes in the value-relevance of earnings and book value during the period of 1953 to 1993 by using US firms. They find the combined value-relevance of earnings and equity book values has not declined over forty years, and it appeared to have increased slightly. They investigate the incremental explanatory power of earnings and equity book values of stock prices and discover that there are a decline earnings explanatory power and an increase of equity book values over the period of study.

Shamy and Kayed (2005) investigate the value relevance of earnings and book values derived under Kuwaiti accounting system that assures a complete compliance with international Accounting Standards. They use data from listed firms in Kuwaiti Stock Exchange over the period 1992 to 2001. By using a valuation model provided by Ohlson (1995) they find that 1) Earnings and equity book values jointly and individually are positively and significantly connected to stock prices; 2) Incremental information content of earnings is higher than equity book values; 3) Earnings for profit companies add more to the overall explanatory of the model than book values; 4) Earnings for loss companies do not add any value to the overall of explanatory power of the model, but book values add more to the overall explanatory power; 5) The best fit for the model was obtained for the industrial and food sectors followed by service and financial institutions; and 6) Earnings add more to the overall explanatory power of the model than equity book value for financial institutions, services, investments and real estate sectors, while book value add more the overall explanatory power only for industrial sectors.

Kousenidis *et al.* (2010) explore the value relevance of accounting information, Equity book values and earnings, in the pre and post-periods of International Financial Reporting Standards implementation. Their study uses a sample of Greek companies for the period 2003 to 2006. He uses Easton and Harris's (1991) and Feltham and Ohlson's (1995) valuation models. They find that the value relevance of equity book values decreased in the post-IFRS period. This finding may be attributed to the higher volatility of the equity book value in that period. However, earnings have an increasing explanatory power on stock prices in the post-IFRS period. This might be as a reaction to the decrease in the information content of equity book values, because earnings and equity book values behave as substitutes in the valuation model.

Alfaraih and Alanezi (2011) study the value relevance of accounting earnings and equity book values information produced by listed companies in Kuwait Stock exchange (KSE) over the period 1995 to 2006. They use price level and returns models. They discover that earnings and equity book values were, jointly and individually, positively and significantly related to stock prices and returns. They find that the value relevance of earnings and equity book values of KSE-listed firms is higher, in terms of adjusted R^2 and earnings coefficient, than the findings observed in some developed and emerging countries. This implies that KSE investors rely on earnings and equity book vales information than other markets. The greater value relevance can be partially attributed to the fairly limited sources of credible and useful competing information available to market participants and the lack of alternative sources of information about the prospects.

Empirical research on the improvement of financial statement quality due to the adoption of IFRS can be categorized into two different groups: those that examined the effects of voluntary adoption of IFRS and those that examined the effects of mandatory adoption of IFRS. Tarca (2001) explores the extent to which firms make policy choices that align with US GAAP or International Accounting Standards (IASs), and the attributes of firms that align with either regime. Using companies from the UK, France, Germany, Japan and Australia, five policy areas (tangible assets, available-for-sale marketable securities, identifiable intangible assets, research and development expenditure and software development expenditure) are investigated. They discover that there are considerable between-country differences in the extent to which companies align with US GAAP or IASs options that are not acceptable under US GAAP.

Hung and Subramanyam (2007) investigate the influence of the voluntary adoption of IFRS by using German listed firms in the period 1998 – 2002. They

discover that the adoption of IFRS does not increase the value relevance of net income and equity book values. However, they find that book value has a significantly larger valuation coefficient and net income has a significantly smaller valuation coefficient under IFRS than under German General Accepted Accounting Principles (GAAP). These results are consistent with IFRS reducing income persistence.

Bartov *et al.* (2005) investigate the comparative value relevance among IAS, US and German accounting standards. In their sample they included, firstly, German firms that were listed on the Frankfurt Stock Exchange and followed the German GAAP and, secondly, German firms that listed on either the Frankfurt Stock Exchange or the Neuer Markt and had switched voluntarily to US GAAP or IAS during the period 1998-2000. Using returns models they found that the value relevance of IAS and US based earnings is higher than that of German GAAP-based earnings suggesting higher accounting quality under an IAS or US accounting regime.

Barth *et al* (2008) test whether the application of IFRS is associated to higher accounting quality. They combine data from 21 countries that adopted the IFRS and reported that firms applying IFRS evidence less earnings management, more timely loss recognition and more value relevance of accounting figures. Daske *et al.* (2008) explores the economic consequences of the introduction of mandatory IFRS reporting in 26 countries across the world and more specifically the effects on market liquidity, cost of equity capital and Tobin's Q. They find that market liquidity and equity valuations increase around the time of the mandatory introduction of IFRS although the results for the cost of capital are mixed. They also discover that the capital market benefits exist only in countries with strict enforcement regimes and institutional environments that provide strong reporting incentives. Moreover, the effects are weaker when local GAAP are closer to IFRS, in countries with an IFRS convergence strategy, and in industries with higher voluntary adoption rates.

Christensen *et al.* (2008) explores the impact of incentives on accounting quality changes around IFRS adoption. They test earnings management and timely loss recognition, constructs often used to assess accounting standards quality. While existing literature documents accounting quality improvements following IFRS adoption, they find that improvements are confined to firms with incentives to adopt. We discover that firms that resist IFRS have closer connections with banks and inside shareholders, which can explain these firms' lack of incentives to adopt IFRS. The overall results show that incentives dominate accounting standards in determining accounting quality. Schadewitz and Vieru (2007) studies the value relevance of the reconciliations imposed by IFRS in the Finnish Stock Market. Finland is usually perceived as a code law country with strong law enforcement. Using a sample of 86 firms and two price models they discover that only the earnings reconciliations are positively value relevant. Equity reconciliations have either a negative coefficient or are statistically insignificant based on the model used.

Paananen (2008) investigates whether the quality of financial reporting has increased in Sweden (a code law country) after the mandatory adoption of IFRS. The analysis of accounting quality includes measures of earnings smoothing, timeliness and association to share prices. Unexpectedly, the results of all these measures suggest a decrease to the accounting quality of the IFRS adoption.

Paananen and Lin (2009) investigates the characteristics of accounting amounts by using a sample of German companies reporting under IAS during 2000-2002 (IAS period), and IFRS during 2003-2004 (IFRS voluntary period), and 2005-2006 (IFRS mandatory period). They discover a decrease in accounting quality after the mandatory EU adoption in 2005. Their findings on earnings smoothing and timely loss recognition corroborated largely their findings related value relevance of accounting information. Their results show that accounting quality has not improved but worsened over time. Further analysis showed that this development is less likely to be driven by new adopters of IFRS but it was driven by the changes of standards. Contrary to the intention of the European adoption of IFRS, this made it harder for investors to base their decisions on the IFRS financial reporting.

Armstrong *et al.* (2010) studies European stock market reactions to 16 events associated with the adoption of International Financial Reporting Standards (IFRS) in Europe. European IFRS adoption represents a major milestone towards financial reporting convergence yet spurred controversy reaching the highest

levels of government. They discover an incrementally positive reaction for firms with lower quality pre-adoption information, which was more pronounced in banks, and with higher pre-adoption information asymmetry, consistent with investors expecting net information quality benefits from IFRS adoption. They find an incrementally negative reaction for firms domiciled in code law countries, consistent with investors' concerns over enforcement of IFRS in those countries. They also discover that a positive reaction to IFRS adoption events for firms with high quality pre-adoption information, consistent with investors expecting net convergence benefits from IFRS adoption.

Khanaga (2011) investigates the value relevance of accounting information in two selected countries which can describe the influence of adapting to IFRS on value relevancy of accounting information in these countries. The results obtained from a combination of regression and portfolio approaches, show that accounting information is value relevant in Bahrain and the United Arab Emirates (UAE) stock market. A comparison of the results for the periods before and after adoption, based on both regression and portfolio approaches, shows an improvement in value relevance of accounting information after the reform in accounting standards in Bahrain stock market, while the results for UAE stock market, indicate a decline in value relevance of accounting information after the reform in accounting standards. It can be interpreted to mean that following to IFRS in UAE does not improve value relevancy of accounting information.

The objective of IFRS that adopted by IIA is to provide relevant accounting information to investor, so that it is expected that the value relevance of both earnings and equity book values increase. IIA adopted IASB conceptual framework as Indonesian GAAP conceptual framework in 1994. However, there is no or little adoption of IAS/IFRS during the period of 1995 to 2000. IIA began to do a significant adoption of IFRS in 2001 by revising at least seven standards. Then, in the end of year 2003, IIA enforced Indonesia Financial Accounting Standard No. 1 to No. 59 and Interpretations No. 1 to No. 4. Most of them have adopted IFRS/IAS. Based on this premise, the following hypothesis is formulated.

H1: The value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption.

Shamy and Kayed (2005) find earnings for profit companies increase the overall explanatory of the model than equity book values. For loss firms, earnings do not increase the overall explanatory power, but book values add more to the overall explanatory power. Based on these findings, the following hypotheses are formulated.

H2a: Equity book values and earnings have value relevance when both equity book values and earnings are positive.

H2b: Both equity book values and earnings do not have value relevance when both equity book values and earnings are negative.

This study follows previous empirical research in accounting that examines the value relevance of accounting information by testing the relationship between stock prices, earnings, and book values. This study uses Ohlson valuation model (1995) that has been used extensively in prior research. This model expresses the firm value as a function of its earnings and equity book values as follows:

$$P_{it} = \alpha_0 + \alpha_1.E_{it} + \alpha_2.EBV_{it} + \varepsilon_{it} \quad (1)$$

Where:

P_{it} = Firm i's stock price at the end of year t

E_{it} = Earnings per share for firm i during period t

EBV_{it} = Equity book value per share for firm i at the end of period t

ε_{it} = Other value-relevant information of firm i for period t besides earnings and equity book value

Based of the equation above, the dependent variable is stock price and independent variables are earnings and equity book values.

This research uses Collins *et al*. (1997) methodology to compare the explanatory power of earnings and equity book values. They decomposed the combined explanatory power of earnings and book value as measured by adjusted R^2 of equation 1 into three components 1) The incremental explanatory power of earnings; 2) The incremental explanatory of equity book values; and 3) The explanatory common to both earnings and book values.

This research uses adjusted R^2 to measure the combined explanatory power of earnings and equity

book values and does not decompose it. This research uses adjusted R^2 because it gives a conservative measurement of explanatory power. Magnitude of adjusted R^2 is lower than R^2 because adjusted R^2 considers number of independent variables and size of sample in measuring explanatory power.

The sample that is chosen for this study includes firms listed in Indonesian Stock exchange in which stock prices, earnings, and book values are available for the study period 1994 to 2009. Data are divided into two periods, namely 1995 to 2000 period and 2001 to 2009 period because there is no or little adoption of IFRS by IIA during the first period. Data that are used to test the hypotheses are secondary data of companies' financial statements that listed in Indonesia Stock Exchange in year 1994 to 2009. The sources of data are Indonesian Capital Market Directory (ICMD) and www.idx.co to get a part sample that consists of companies financial statements.

RESULTS AND DISCUSSION

Table 1 shows results of multiple regressions analysis to test hypothesis 1. The results indicate that adjusted R^2 (0.237) of sub sample of period 1994 to 2000 is higher than adjusted R^2 (0.217) of sub sample of period 2001 to 2009. These results support hypothesis 1 that value relevance of earnings and equity book value is higher in period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption. However, the results must be interpreted carefully because EPS coefficient of period 2001 to 2009 is not significant. Coefficients of EPS change. EPS coefficient of period 1994 is significant (0.315, t-value= 4.965), but it becomes insignificant for period 2000 to 2009 (-0.331, t-value= -0.331). It means that value relevance of earnings decreases. However, value relevance of equity book value increases. Coefficient of EBVS is 0.198 (t-value= 10.967) for period 1994 to 2000, and it becomes 0.698 (t-value= 10.468) for period 2001 to 2009.

Table 2 indicates results of multiple regression analysis to test hypothesis 2a. The results show that regression coefficient of EPS is positive (1.173) and significant (t-value= 6.256), it means that earnings have value relevance. Coefficient of regression of EBVS is also positive (0.229) and significant (t-value= 5.666), this indicates that equity book values have also value relevance. These results support hypothesis 2a that equity book values and earnings have value relevance when both equity book values and earnings are positive.

Table 1
Results of Regressions of Price on Earnings and Equity Book Values for Period 1994 to 2000 and Period 2001 to 2009

Independent Variables	Sub Samples	
	Period 1994 to 2000	Period 2001 to 2009
Constant	2103.039*	1850.163*
	(13.139)	(5.772)
Earnings per share	0.315*	-0.331
	(4.965)	(-0.113)
Equity book values per share	0.198*	0.698*
	(10.967)	(10.468)
Adjusted R^2	0.217	0.237
P-Value of Regression Model	0.000	0.000
Number of year-firm observations	1091	1195

*denotes significant at 1%

Table 2
Results of Regressions of Price on Earnings and Equity Book Values for Period 1994 to 2009-Sub Sample of Positive Earnings and Positive Equity Book Values

Independent Variables	Sub Sample of Positive EPS and Positive EBVS
Constant	2351.231*(8.547)
EPS	1.137*(6.256)
EBVS	0.229*(5.666)
Adjusted R^2	0.189
P-Value of Regression	0.000
Number of year-firm observations	1583

*denotes significant at 5%

Table 3
Results of Regressions of Price on Earnings and Equity Book Values for Period 1994 to 2009-Sub Sample of Negative Earnings and Negative Equity Book Values

Independent Variables	Sub Sample of Negative EPS and Negative EBVS
Constant	463.371*(5.260)
EPS	0.0455(0.624)
EBVS	-0.0924*(-2.672)
Adjusted R^2	0.042
P-Value of Regression	0.000
Number of year-firm observations	207

*denotes significant at 5%

Table 3 shows results of multiple regression analysis of hypothesis 2b testing. The results indicate that EPS regression coefficient is positive (0.0455) and insignificant (t-value= 0.624), this means that earnings do not have value relevance. Regression coefficient of EBVS is negative (-0.0924) and significant (t-value= -2.672), this shows that equity book values have value relevance but the coefficient is negative. This sign is odd and unpredicted. This negative sign means that when equity book values decrease, the prices will increase. It is not common sense. These results support hypothesis 2b that equity book values and earnings do not have value relevance when both equity book values and earnings are negative.

Empirical data analysis results support hypothesis 1 that value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS that the period of little IAS/IFRS adoption. This finding proves that the adoption of IAS/IFRS by IIA increases the value relevance of accounting information. IIA made a significant adoption of IAS/IFRS since 2001 to provide relevant accounting information to investors. This research proves that the value relevance of earnings and equity book values increases after 2001. This finding is consistent with Khanaga (2011) that investigates the value relevance of accounting information in Bahrain after reforming its accounting standard by adopting IFRS. It shows an improvement in value relevance of accounting information after the reforming accounting standards in Bahrain stock market. This finding also support a premise that fair value will increase the value relevance of accounting information because IAS/IFRS that are adopted by IIA tend to use more fair values than historical costs for accounting measurement. Accounting measurement by using fair value can lead value of firm to be closer to intrinsic value, so that accounting information is more value-relevant to investors.

Although the results support hypothesis 1, they must be interpreted carefully because regression coefficient of EPS for f period 2001 to 2009 is not significant. EPS coefficient of period 1994 to 2000 is significant (0.315, t-value= 4.965), but it becomes insignificant for period 2001 to 2009 (-0.331, t-value= -0.331). These mean that value relevance of earnings decreases. However, value relevance of equity book value increases. EBVS coefficient is 0.198 (t-value= 10.967) for period 1994 to 2000, and it becomes 0.698 (t-value= 10.468) for period 2001 to 2009. This finding shows that during IAS/IFRS adoption equity book values have higher value relevance than earnings.

Results of data analysis support hypothesis 2a that equity book values and earnings have value relevance when both equity book values and earnings are positive. This finding shows that when equity book values and earnings are positive, both are used by investor to make investment decisions. This finding is consistent with Shamy and Kayed (2005). They find

that earnings and book values have explanatory power when they are positive.

Empirical results also support hypothesis 2b that equity book values and earnings do not have value relevance when both equity book values and earnings are negative. The results of data analysis show that EPS regression coefficient is positive and insignificant, this indicate that earnings do not have value relevance. However, coefficient of EBVS is negative (-0.0924) and significant (t-value= -2.672), this finding indicates that equity book values have value relevance but the coefficient is negative. The sign is strange. The negative sign means that share price will increase when equity book values decrease. It is difficult to explain.

CONCLUSION

The goal of this research is to give preliminary evidence for information content of equity book values and earnings during transition era to IAS/IFRS in Indonesia. This research compares the value relevance of equity book values and earnings in the period of significant adoption of IAS/IFRS (1994 to 2000) and the period of little IAS/IFRS adoption (2001 to 2009). This research finds that value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption. This research also finds that equity book values and earnings have value relevance when both equity book values and earnings are positive. However, both equity book values and earnings do not have value relevance when both equity book values and earnings are negative.

The limitation of this research is that the regression models cannot fulfill all of classical assumptions. Heteroscedasticty problem occurs in all equations. However, this problem cannot be overcome, although the variables have been deflated by using number of outstanding shares, this research uses earnings per share, equity book values per share, and share price. Because this research must use negative earnings and negative equity book values, heteroscedasticity cannot be reduced by using log or natural log. Log or natural log cannot be applied on negative values.

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