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DOES IFRIC 15 MATTER? THE DECISION USEFULNESS OF ACCELERATED REVENUE AND EARNINGS RECOGNITION

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ABSTRACT

The newly issued IFRIC 15 Agreements for the Construction of Real Estate are likely to cause Malaysian property developers to change their revenue recognition policy from a stage-of-completion basis (accelerated) to a completion basis (conservative). In the US, consistent with the approach taken by the Financial Accounting Standards Board (FASB), Altomuro, Beatty and Weber (2005) found that reported earnings based on accelerated revenue recognition are value relevant. The subsequent elimination of this industry practice in the US by the Securities and Exchange Commission (SEC) *has indeed caused a decline in earnings informativeness. In contrast, this study finds that reported earnings based on the existing accelerated revenue recognition policy are weak and are no better than operating cash flow in predicting the stock returns, market pricing and future operating cash flows of Malaysian property developers. At the same time, the planned new, more conservative revenue recognition policy based on a completion basis may not improve the decision usefulness of financial reporting among property developers, at least not in the short run. Rather, this shift in revenue recognition policy is expected to decrease accrual-based earnings management opportunities, and managers may begin to focus on managing real activities instead (Cohen, Dey, & Lys, 2008).*

Keywords: reported earnings, IFRIC 15, accelerated and conservative revenue recognition, decision usefulness

INTRODUCTION

This study is motivated by the issuance of an industry-specific IFRIC whose adoption is expected to significantly affect the financial reporting practices of property developers in Malaysia. First, the revenue recognition principle prescribed in the IFRIC contradicts the principle in the existing revenue recognition policy in practice among property developers. The Malaysian property development industry generally practises a buy-first and build-later

concept, as opposed to the build-first and buy-later concept used in the majority of other countries, particularly those countries with developed economies (see Nik, 2009; Nordin, 2009). Under the Malaysian practice, a property buyer first signs a sale and purchase agreement (SPA) with a developer; the developer begins to build (or continues building), and the buyer makes progressive payments in accordance with the stages of completion. The handover of the property occurs when the construction of the property is completed. In the accounts of the property developer, revenue is recognised on a stage-of-completion basis, as prescribed in the financial reporting standard, FRS 201 *Property Development Activities* (Malaysian Accounting Standards Board [MASB], 2001), which is based on local generally accepted accounting practices (GAAP).

However, the issuance of IFRIC 15 *Agreements for the Construction of Real Estate* (International Accounting Standards Board [IASB], 2008; MASB, 2010a) in 2010 by the Malaysian Accounting Standards Board (MASB) will lead to the early termination of the use of this revenue recognition policy, which will need to be retired when the local GAAP is fully converged with the IFRSs.[1] With the adoption of IFRIC 15, Malaysian property developers will need to change their revenue recognition policy to a completion basis, that is, to only recognise revenue and hence earnings, upon the completion and handover of the developed properties to the buyers. Consequently, property developers will no longer recognise revenue in stages but on a one-off basis; earnings will no longer be allocated throughout a construction period but only at the end of the construction period. At the same time, assuming there are no changes in tax laws, the operations and cash flow of the property developers will remain unchanged.

This change in revenue recognition policy, which affects the timing of earnings recognition, has been cautiously received by the MASB and Malaysian property developers. In the MASB's comment letter to the IASB on the IFRIC Draft Interpretation D21 *Real Estate Sales*, the board clearly stated its reservations about the principle in the draft that would lead to the use of the completion basis for revenue recognition.[2] The MASB proposed an alternative approach, based on the stage-of-completion basis in revenue recognition for property development activities and sales. The stage-of-completion basis is associated with accelerated revenue and earnings recognition, and this contrasts with the completion basis, which is a more conservative revenue and earnings recognition basis. In 2010, the MASB deferred the effective date of IFRIC 15 to 1 January 2013 (MASB, 2010b). Furthermore, when the Malaysian Financial Reporting Standards (MFRS) achieved full convergence with the IFRS on 1 January 2012 (MASB, 2011a), this convergence was with the exception of the entities subject to the application of IFRIC 15. These entities, the property developers, are expected to fully converge with the IFRS effective as of

1 January 2013.

Second, apart from the additional compliance costs, an issue of interest here is whether the implementation of IFRIC 15 actually matters, given the above facts. A number of recent studies on the economic consequences of the introduction of new financial reporting rules have examined the implications of the adoption of IFRS. For instance, Christensen, Lee and Walker (2007) found that the IFRS adoption was not uniformly benefiting all firms in the UK. Daske, Hail, Leuz and Verdi (2008) found that the mandatory IFRS adoption around the world had modest but economically significant capital market benefits. Furthermore, at issue here are the economic consequences of two different recognition principles, i.e., a more aggressive but timely policy, and more conservative but lagging revenue and earnings recognition policies. In fact, researchers have provided evidence that different revenue recognition policies do matter, i.e., they have impacts on market pricing and returns (for instance, see Davis, 2002; Zhang, 2005; Chandra & Ro, 2008). In addition, Altamuro, Beatty and Weber (2005) documented an adverse impact on reporting quality when an industry reporting practice is eliminated and replaced with a new treatment in revenue recognition. Hence, the economic consequences of IFRIC 15 implementation are an empirical question in this study.

Specifically, this study aims to answer two fundamental financial reporting questions. First, does financial reporting based on the existing revenue and earnings recognition policy using the stage-of-completion basis provide decision-useful information to equity capital providers? The objective of financial reporting is to provide decision-useful financial information to capital providers to assist providers in making investment decisions (IASB, 2010; MASB, 2011b). If the existing revenue and earnings recognition policy using the stage-of-completion basis already achieved this objective, any change to accounting treatment could adversely affect its decision usefulness. This study therefore begins by assessing the decision usefulness of reported earnings based on the accelerated revenue recognition policy. The next sensible question to ask is: would reporting based on operating cash flow contain more decision-useful information than earnings? If so, IFRIC 15 would not matter at all, because this approach would change only the revenue recognition policy and not the operating cash flow (assuming there is no change in tax law). Next, this study therefore assesses the decision usefulness of reported earnings compared to operating cash flow, which is not affected by revenue recognition policy.

This study finds that reported quarterly earnings are weak at explaining the stock returns and market pricing and predicting the future operating cash flows of Malaysian property developers. Given that reported quarterly earnings reflect the timing of allocation and the recognition of earnings based on the

accelerated revenue recognition policy, this finding suggests that the decision usefulness of existing revenue recognition policy is low. This finding contradicts the conclusions reached by Altamuro et al. (2005) and Zhang (2005), who found that, consistent with the FASB's approach, accelerated and early revenue recognition as a specific industry practice was value relevant and that the relevant reported revenue and earnings had higher information content. These researchers found that the subsequent elimination of this industry practice in the US by the SEC had indeed caused a decline in the level and quality of information on earnings. In contrast, this study supports the contention that aggressive revenue and earnings recognition impairs the quality of reported earnings.

In comparison, reported annual earnings are slightly better at explaining the stock returns and market pricing and predicting the future operating cash flows of property developers. From the perspective of recognition timing, annual reporting is relatively conservative in revenue and earnings recognition. This view provides a hypothetical insight into the likely level of decision usefulness of reported earnings if IFRIC 15 is implemented. However, in absolute terms, the decision usefulness of reported annual earnings is low, despite being relatively higher than that of reported quarterly earnings. This study also finds that annual operating cash flow is more decision-useful than reported annual earnings in explaining stock returns and market pricing and in predicting future operating cash flows. Overall, this evidence tends to suggest that revenue recognition policy does not actually matter, because theoretically, operating cash flow is independent from revenue recognition policy, a product of accrual assumption, if there is no change in tax rules.

The implementation of IFRIC 15 is expected to eliminate the industry practice of accelerated revenue recognition among Malaysian property developers. However, this study concludes that the elimination of the current industry practice (accelerated recognition) and its proposed replacement by conservative recognition may not in fact have significant economic consequences. The decision usefulness of the existing practice of revenue recognition is weak, and hence its elimination should not have much, if any, negative impact. Furthermore, to date there is no evidence as to how decision-useful the new revenue recognition approach will prove to be.

The shift from accelerated to conservative revenue and earnings recognition will reduce the reporting discretion among Malaysian property developers. In turn, this decrease in discretion will reduce the accrual-based earnings management opportunities among property developers. In the absence of discretion to recognise revenue and earnings at the various earlier stages of completion, it is a reasonable assumption that property developers will seek to plan the completion timing of their projects to be able to recognise revenue and

earnings at shorter intervals (ideally for each interim period, whenever feasible).

This study contributes to the relevant body of knowledge in a number of ways. First, the study discusses the economic consequences of introducing new reporting standards, and specifically the new IFRS interpretation, for reporting entities and markets. Second, the paper evaluates the impact of reported earnings and operating cash flow on the stock returns and market pricing of property developers. Reporting entities have more discretion regarding when and how they report earnings, as prescribed in the accounting measurement principles, compared to the more restrictive rules for reporting operating cash flow. Next, this study provides evidence concerning the predictability of future operating cash flows in the context of different revenue recognition bases. Lastly, and importantly, this study contributes to the currently limited literature available on IFRICs – limited because the majority of current literature on financial reporting focuses on IFRS.

The remainder of this paper is organised as follows. The next section discusses the financial reporting principles for property development activities based on local GAAP and IFRS - IFRIC 15. The third section reviews the relevant literature on revenue recognition and decision usefulness studies on earnings and operating cash flow and develops hypotheses from the findings. The fourth section focuses on research design and data collection. The fifth section presents the findings and discussions, which seek to address the questions asked. The final section contains the conclusions.

REVENUE RECOGNITION FOR PROPERTY DEVELOPMENT ACTIVITIES

The main international financial reporting issue pertaining to revenue recognition for property development activities is whether the development activities carried out by a property developer are a sale of goods (IAS 18), a rendering of services (IAS 18) or a rendering of services by way of construction contracts (IAS 11).[3] In Malaysia, this is not an issue, because a local reporting standard, FRS 201, provides reporting guidance on revenue recognition for property development activities. FRS 201 provides two guiding principles for revenue recognition from property development activities as follows: first, at the time when the sale of the development unit is effected, i.e., upon signing the individual SPA (this follows the form instead of the substance of the transaction); and second, when the actual property development activities commence. Because the FRS includes all of the property development activities within its scope, there is no need to decide on whether the activities are within the scope of IAS 18 or IAS 11.

For IFRS, IFRIC 15 was introduced in 2008 to provide consensus on the issue. IFRIC 15 stipulates that if a property development activity falls within the definition of construction contracts, the property developer applies IAS 11, which aims to recognise revenue by reference to the stage of completion.[4] Otherwise, the property development activity falls within the scope of IAS 18, which is either a sale of goods or a rendering of services. If the property developer does not need to provide construction materials, the property development activity is a rendering of services, and revenue is accordingly recognised by a reference to the stage of completion. Conversely, if the property developer must provide construction materials, the property development activity is a sale of goods. For a sale of goods, the timing of revenue recognition depends on two specific guiding principles: first, the transfer of significant risks and rewards; and second, continuing managerial involvement and effective control over the goods sold. If the transfer of risks and rewards and of managerial involvement and control are in stages, then revenue is recognised by a reference to the stage of completion. However, if the transfers occur entirely at one single point in time, i.e., at the point of completion, then revenue recognition is at the completion of the construction and delivery of the developed property to the buyer.

Although IFRIC 15 was introduced to address the issue in the IFRS, the solution to this international financial reporting issue in turn creates a new issue with regard to the accounting for property development activities in Malaysia. In accordance with IFRIC 15, the Malaysian scenario – i.e., the buy-first and build-later concept – falls within paragraph 18 of the IFRIC 15 (IASB, 2008). In other words, the significant risks and rewards and the continuing managerial involvement and effective control are only transferred to property buyers at the point of completion. Hence, revenue is only recognised upon the completion of the development activities rather than at the point of signing the individual SPA. The revenue recognition timing of IFRIC (upon the completion of development activities) contrasts with the revenue recognition timing of FRS 201 (by reference to the stage of completion). Consequently, the implementation of IFRIC 15 in Malaysia will eliminate the industry practice of revenue recognition based on the stage-of-completion basis.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This study uses the value relevance and predictive value of accounting variables to assess the decision usefulness of financial reporting. Value relevance indicates the association of key accounting variables, i.e., earnings, the book value of equity (net assets) and operating cash flow, with stock returns and market pricing (for instance, see Barth, Beaver, & Landsman, 2001a; Kothari, 2001; Barth, Landsman, & Lang, 2008). Predictive value reflects the ability of accounting

variables to explain future variables such as earnings and operating cash flow – accounting variables that drive stock returns and market pricing (for instance, see Barth, Cram, & Nelson, 2001b; Kim & Kross, 2005).

In this value relevance study, the focus is first on assessing the extent to which reported earnings based on an accelerated revenue recognition policy are relevant to the stock returns and market pricing of property developers. Reported earnings have generally been the first accounting variable representing an income statement used in value relevance studies. Researchers have found a significant association between security returns and the level and change of reported earnings, which suggests that earnings play a significant role in stock returns and market pricing (see Easton & Harris, 1991; Ali & Zarowin, 1992; Bartov, Goldberg, & Kim, 2005; Sofie, Ann, & Marleen, 2007).

Because earnings represent changes (increases or decreases) in equity (the book value of net assets), the next focus is whether the book value of equity, collectively with reported earnings, is also relevant to stock returns and market pricing. Collins, Maydew and Weiss (1997) and Francis and Schipper (1999) examined changes in the value relevance of earnings and the book value of equity over a period of four decades. Both studies concluded that the combined value relevance of earnings and book values is rather stable over time and that financial statements, i.e., reported earnings and the book value of equity, are value relevant to equity market valuations in the US. Graham and King (2000) examined the relationship between stock prices and accounting numbers across six Asian countries. These researchers found differences across the six countries in the degree of association between market value and accounting numbers.

The recognition of revenue and earnings by reference to the stage of completion, i.e., the stage-of-completion basis, is also known as the percentage of completion method. Based on a matching concept, this approach matches the revenue with the associated costs incurred in generating that revenue according to the proportion of work completed in a property development project. This matching of revenue and costs results in the recognition of earnings (or losses) attributed to the completed stage or percentage of the property development project. This early recognition of revenue occurs prior to the completion of the earnings process (see Altamuro et al., 2005). Nevertheless, the IASB (2009) and IASC (1993) both suggest that revenue and earnings recognition based on the stage of completion, for construction contracts and for the sales of goods and the rendering of services, provides decision-useful information to the users of financial reporting. Similarly, the FASB suggests that the stage-of-completion basis, which is the industry practice in the US, provides decision-useful information about the future performance of firms in those specific industries (see Altamuro et al., 2005).

Empirically, Altamuro et al. (2005) found that as an industry practice, accelerated revenue recognition is more value relevant and better reflects the future performance of firms in some specific industries (also see Zhang, 2005).[5] The subsequent elimination of this industry practice in the US by the SEC has indeed caused a decline in earnings informativeness. Hence, any attempt to eliminate the use of accelerated revenue recognition could reduce the quality of reported earnings. This study therefore first hypothesises that reported earnings based on an accelerated revenue recognition policy are decision-useful. Accordingly, the adoption of IFRIC 15 and the consequent change in revenue recognition policy do matter if these changes impair the quality of reported earnings. The hypothesis is as follows:

H1: Reported earnings based on an accelerated revenue recognition policy are decision-useful.

Conversely, the stage-of-completion basis is generally associated with aggressive accounting practices, which aim to accelerate revenue and earnings recognition.[6] This approach is also associated with earnings management and fraud in extreme cases (for instance, see Dechow & Skinner, 2000; Nelson, Elliott, & Tarpley, 2003; Altamuro et al., 2005). In fact, the SEC suggests that when eliminating those industry-specific revenue recognition practices, improper revenue recognition is a significant financial reporting issue and firms use premature revenue recognition to meet market expectation. Relatively speaking, the completion basis is viewed as a more conservative accounting practice in revenue and earnings recognition. Analogously with Zhang (2005) and Zhong, Welker and Gribbin (2010), this study uses the term conservative to describe the conservatism in the timing of revenue recognition, i.e., such as using the completion method compared to the accelerated revenue recognition method (also see the concept of conservatism in revenue recognition proposed by Ohlson, Penman, Biondi, Bloomfield, Glover, Jamal, & Tsujiyam, 2011).[7] Consequently, aggressive earnings management is thought to impair the quality of reported earnings (for instance, see Leuz, Nanda, & Wysocki, 2003; Marquardt & Wiedman, 2004; Dechow, Ge, & Schrand, 2010). Alternatively, this study hypothesises that reported earnings based on an accelerated revenue recognition policy are less decision-useful than a conservative revenue recognition policy. Accordingly, the adoption of IFRIC 15 and the consequent change in the revenue recognition policy do matter if these changes improve the decision usefulness of reported earnings. The hypothesis is as follows:

H2: Reported earnings based on an accelerated revenue recognition policy are less decision-useful than a conservative revenue recognition policy.

The economic consequences of a change in revenue recognition policy also depend on the significance of earnings and operating cash flow for the stock returns and equity market pricing of Malaysian property developers. Revenue recognition is based on the accrual concept; when revenue recognition policy changes (and assuming there is no change in tax laws), the operations and cash flow of property developers should remain unchanged. Therefore, ascertaining the decision usefulness of earnings and operating cash flow for stock returns and market pricing should provide further insights into whether the change in revenue recognition policy matters.

Dechow (1994) hypothesised that earnings are more value relevant than operating cash flow, based on the premise that cash flows are generally more arbitrary and suffer more severely from timing and matching problems than earnings. Dechow showed that the role of the accruals process is to adjust cash flows to reduce timing and matching problems, thereby making earnings a superior measure of firm performance. Biddle, Seow and Siegel (1995) examined the relative value relevance of earnings and operating cash flow. These researchers provided evidence that for the majority of industries, earnings are most value relevant, but for some industries, operating cash flow is most value relevant. Charitou (1997) found that cash flows play a more important role in the market place when the operating cycle, the magnitude of accruals and the measurement interval are taken into consideration. Moreover, results indicate that cash flow has more information content than earnings in explaining security returns. In contrast, Penman and Sougiannis (1998) found that earnings provide a better forecast of current market value than cash flow forecasts. In this finding, accruals appear better able to improve the ability of earnings to reflect value than cash flows.

Apart from value relevance, another perspective in assessing the decision usefulness of reported earnings is exploring their ability to predict future operating cash flows. Easton (1985) argued that the value relevance of accounting earnings in stock pricing is attributable to its ability to predict the future stream of cash receipts from an equity investment. In fact, the FASB indicates that current earnings are a better indicator of a firm's future cash flow than its current cash flow is. Greenberg, Johnson and Ramesh (1986) provided evidence to support the FASB's assertion that current earnings predict future operating cash flows better than the current operating cash flows. Kim and Kross (2005) also found that current earnings predict future operating cash flows better and that predictability increases over time as accounting conservatism increases. This study therefore hypothesises that reported earnings are more decision-useful than operating cash flow, with regard to both their significance for stock returns and market pricing and their value in predicting future operating cash flows.

Accordingly, the adoption of IFRIC 15 and the change in revenue recognition policy do matter if these factors change the information content of reported earnings.

H3: Reported earnings are more decision-useful than operating cash flow.

RESEARCH DESIGN

Under the stage-of-completion basis, revenue and earnings are allocated throughout the period of property development after the signing of SPAs at the various stages of completion. Technically, earnings may be recognised each month or quarter, i.e., at shorter intervals, whenever a stage of completion is claimed. Any study of the effects of accelerated revenue and earnings recognition must therefore be carried out at more frequent intervals than annually, such as on a quarterly basis.[8] Conversely, the completion basis does not allocate revenue and earnings throughout the period of property development after the signing of SPAs. Instead, revenue and earnings are recognised only when the relevant property development activities have ended, or in other words, at longer intervals.[9] Hence, any study using reported earnings on an annual basis may provide sensible insight into, if not serve as a proxy for, more conservative revenue and earnings recognition – even if reported annual earnings are recognised on an accelerated basis. In summary, quarterly reporting (shorter intervals) better reflects the effects of accelerated revenue recognition than annual reporting, whereas annual reporting (longer intervals) provides a useful hypothetical scenario for revenue recognition based on the completion basis even if accelerated revenue recognition is being applied. Hence, this study uses quarterly data as a proxy to test accelerated revenue and earnings recognition effects and annual data as a proxy to test conservative revenue and earnings recognition effects.

Basu (1997) interpreted accounting conservatism as a consequence of earnings that reflect 'bad news' more quickly than 'good news'.[10] If a stock market is efficient, researchers suggest that stock prices reflect information received from other sources apart from reported current earnings. In the context of accrual accounting, managers are required to recognise 'bad news', i.e., impairment losses, bad debt provisions, write downs of inventory value to lower net realisable value, etc., faster than 'good news', i.e., unrealised profits and gains, as illustrated by Basu (1997). Therefore, reported current earnings are predicted to be more strongly associated with concurrent negative unexpected returns as a proxy of 'bad news' than positive unexpected returns as a proxy of 'good news'. Using a reverse earnings-returns model, Basu (1997) examined accounting conservatism as follows:

$$E_{jt}/P_{jt-1} = \alpha_0 + \alpha_1 DR_{jt} + \beta_0 R_{jt} + \beta_1 R_{jt} * DR_{jt} + \varepsilon_{jt} \quad \text{(A)}$$

If reported earnings reflect managers' choice of more conservative accounting policies in revenue and earnings recognition, the 'bad news' in the market pricing would have a stronger association with the reported earnings than if reported earnings reflect managers' choice of less conservative accounting policies in revenue and earnings recognition. E_{jt} is reported earnings per share for firm j, deflated by P_{jt-1}, the stock price per share for firm j at the beginning of period t. DR_{jt} is a dummy variable that = 1 if $R_{jt} < 0$ and = 0 if otherwise. R_{jt} is the returns of firm j for period t (quarterly or annual returns).[11] High and statistically significant adjusted R^2 and the β_1 of the model indicate that market returns that contain 'bad news' are associated with the reported earnings. This indication reflects accounting conservatism in reporting earnings. Hence, in the context of this study, if the annual basis of revenue and earnings recognition reflects relatively more conservative accounting policies compared to the quarterly basis, the annual data are predicted to have relatively higher earnings-returns statistics using the Basu model. If this prediction holds true, the robustness of annual data is enhanced in reflecting the attribute of a more conservative revenue and earnings recognition policy than the quarterly data.

A number of market models have been developed by researchers in value relevance studies. The common explanatory variables used include earnings, equity book value and operating cash flow. Both the level and changes in these variables have been used. The common market dependent variables include returns on stock prices (called the returns model) and equity market values (called the price model). This study employs the following returns models:

$$R_{jt} = \alpha_0 + \alpha_1 \Delta E_{jt}/P_{jt-1} + \alpha_2 E_{jt}/P_{jt-1} + \varepsilon_{jt} \quad \text{(1A)}$$

$$R_{jt} = \alpha_0 + \alpha_1 \Delta E_{jt}/P_{jt-1} + \alpha_2 E_{jt}/P_{jt-1} + \alpha_3 \Delta CF_{jt}/P_{jt-1} + \alpha_4 CF_{jt}/P_{jt-1} + \varepsilon_{jt} \quad \text{(1B)}$$

Returns model 1A, proposed by Easton and Harris (1991), is based on reported earnings, both changes and level. R_{jt} is the returns of firm j for period t (quarterly or annual returns). ΔE_{jt-1} and E_{jt} are the respective change and level of earnings per share for firm j and period t. P_{jt-1} is the stock price per share for firm j at the beginning of period t. Returns model 1B, used by Charitou (1997) and Cheng, Liu and Schaefer (1997), is based on reported earnings and operating cash flow, again both changes and level. ΔCF_{jt-1} and CF_{jt} are the respective change and level of operating cash flow per share for firm j and period t.

The price models that are commonly used in value relevance studies are based on the theoretical work of Feltham and Ohlson (1995) and Ohlson (1995). These price models are as follows:

$$MV_{jt} = \beta_0 + \beta_1 BV_{jt} + \beta_2 E_{jt} + \varepsilon_{jt} \quad (2A)$$
$$MV_{jt} = \beta_0 + \beta_1 BV_{jt} + \beta_2 E_{jt} + \beta_3 CFO_{jt} + \varepsilon_{jt} \quad (2B)$$

Price model 2A examines the association between equity market value and two financial statement variables, namely the equity book value and earnings. Black (2003) adds operating cash flow as an explanatory variable to the price model, as per equation 2B, in studying the value relevance of cash flow in firm valuation. MV_{jt} is the market value of firm j at time t, BV_{jt} is the book value of equity of firm j at time t, E_{jt} is the reported earnings of firm j for the period ending at time t, and CFO_{jt} is the operating cash flow of firm j for the period ending at time t.[12]

To assess the value of reported current earnings and operating cash flow in predicting future operating cash flows, this study uses the following models:

$$CFO_{jt+1} = \gamma_0 + \gamma_1 E_{jt} + \varepsilon_{jt} \quad (3A)$$
$$CFO_{jt+1} = \gamma_0 + \gamma_1 E_{jt} + \gamma_2 CFO_{jt} + \varepsilon_{jt} \quad (3B)$$
$$CFO_{jt+1} = \gamma_0 + \gamma_1 CFO_{jt} + \gamma_2 Accruals_{jt} + \varepsilon_{jt} \quad (3C)$$

CFO_{jt+1} is the operating cash flow of firm j for period $t + 1$ (future period); E_{jt} is the reported earnings of firm j for period t (current period); CFO_{jt} is the operating cash flow of firm j for period t (current period); and $Accruals_{jt}$ is measured as the earnings of firm j for period t less its corresponding period operating cash flow. A number of researchers (such as Dechow, Kothari, & Watts, 1998; Barth et al., 2001b; Kim & Kross, 2005) have examined the ability of current reported earnings and operating cash flow to predict future operating cash flows using equations 3A (current earnings only) and 3B (current earnings and operating cash flow). Barth et al. (2001b), however, concluded that the informativeness of current reported earnings as a predictor of future operating cash flows is masked by its aggregate form. If current earnings are broken down into their cash flow component and accrual component, as per equation 3C, the accrual component enhances the predictive power of current reported earnings in predicting future operating cash flows.

This study examines a total of 88 public firms in the property development sector listed on the Kuala Lumpur Stock Exchange as of 30 June 2012. These firms comprise approximately 11% of the total firms listed on the stock exchange as of that date and serve as a significant sector of the stock market. The accounting and market variables of all of the equations for the sample firms were collected for the years 2002 to 2011 from Datastream. The 10-year period includes the issuance and effective use of FRS 201 amongst Malaysian property developers. Altogether, there are 2,831 firm-quarters (in the firm-quarter panel) and 797 firm-years (in the firm-year panel) from the 88 firms

across the 40 quarters of 10 years.

FINDINGS AND DISCUSSIONS

Table 1 shows the descriptive statistics of the key variables, both firm-quarter and firm-year panels, used in the models. The first thing to note is that the firms in the property development sector registered a mean market-to-book value of lower than 1.00 (0.659 in the firm-quarter panel and 0.653 in the firm-year panel). This statistic means that on average, the market price of the firms' equities was approximately 34% lower than their book values (for both panels). Eccles, Holt and Fell-Smith (2005) linked this discount of market capitalisation from net asset value to the accuracy of the reported revenue and earnings among property developers. However, this observation is rather unusual because in normal circumstances, markets usually price equities at more than their book values. For instance, Lau (2010) recorded a mean market-to-book ratio of 1.607 for a sample of 5,517 Malaysian firm-year observations from 1993 to 2007. The market value of the sample firms was statistically higher than the book value of equity at the 1% level. Researchers suggest that this market premium over the book value of equity represents some unrecognised assets such as intangible assets (for instance, see Kohlbeck & Warfield, 2007; Basu & Waymire, 2008; Skinner, 2008) and possible unverifiable increases in the value of recognised net assets and economic rents arising from conservative accounting recognition and measurement rules (see Roychowdhury & Watts, 2007, for a detailed discussion on market-to-book ratios). Moreover, the book value of equity registered a larger coefficient of variation than that of the market value of equity in the firm-year panel. This result suggests that in the long run, based on measuring at yearly intervals, the accounting measure of equity tends to be more volatile than the market measure of equity. Nevertheless, in the short run, e.g., on a quarterly interval basis, the market measure of equity is more volatile than the accounting measure of equity.

Second, the coefficient of variation for the earnings level is larger than that for operating cash flow level, which indicates that the level of earnings is more volatile than the level of operating cash flow, as shown in both panels. At the same time, the change in operating cash flow has a much larger coefficient of variation than the change in earnings. The level of earnings is also larger than the level of operating cash flow. This gap represents the mean value for total accruals created by firms in the property development sector. In earnings management, total accruals is measured as the difference between reported earnings and operating cash flow (see Healy & Wahlen, 1999; Barth et al., 2001b). Similarly, accruals have a much larger coefficient of variation than earnings and operating cash flow in both firm-quarter and firm-year panels. A reasonable explanation for

this result is that firms in the property development sector smooth their earnings over the observation time period (32 quarters or 8 years).[13] Because earnings consist of operating cash flow and accruals, accruals are the component that represents the earnings management effect. Managers can reduce volatility in earnings by smoothing these earnings; however, this has the consequence of increasing the volatility in accruals (see Barth et al., 2001b, for a detailed discussion on accruals, and Dechow et al., 2010, for a comprehensive review on accruals and earnings management).

Table 1
Descriptive statistics of key variables

	Firm-quarter panel			Firm-year panel		
	Mean	S. D.	Co Var	Mean	S. D.	Co Var
Market Price	0.887	0.769	0.867	0.917	0.788	0.860
Book Value of Equity	1.434	0.996	0.694	1.379	1.257	0.911
Market-to-book	0.659	3.274	4.968	0.653	1.364	2.087
Stock Returns	0.027	0.247	9.210	0.115	0.621	5.386
Earnings	0.018	0.127	6.918	0.061	0.285	4.675
Operating Cash Flow	0.015	0.098	6.368	0.060	0.197	3.282
Accruals	0.003	0.153	53.720	–0.007	0.312	–44.100
Change in Earnings	0.001	0.175	161.861	0.011	0.345	30.567
Change in CFO	–0.001	0.128	–233.472	0.002	0.252	105.343

Notes:
(1) All variables are expressed in Malaysia Ringgit (MYR) per share basis, except stock returns and market-to-book, which are expressed in ratios.
(2) Std Dev denotes standard deviation and Co Var denotes coefficient of variation.

Table 2
Regression outputs - Basu model

	Adjusted R^2	DR_{jt}	R_{jt}	$R_{jt}*DR_{jt}$
Firm-Quarter (N = 2,930)	0.006***	–0.013	–0.073	0.122***
Firm-Year (N = 803)	0.011***	–0.050	–0.009	0.259*

Notes:
(1) $E_{jt}/P_{jt-1} = \alpha_0 + \alpha_1 DR_{jt} + \beta_0 R_{jt} + \beta_1 R_{jt}*DR_{jt} + \varepsilon_{jt}$
E_{jt} is reported earnings per share for firm j, deflated by P_{jt-1}, the stock price per share for firm j at the beginning of period t. DR_{jt} is a dummy variable which = 1 if $R_{jt} < 0$, and = 0 if otherwise. R_{jt} is the returns of firm j for period t (quarterly or annual returns).
(2) ***, ** and * denote significant at 1%, 5% and 10%, respectively.

Table 2 presents the regression estimates based on the Basu model from the quarter and annual panels. Despite the low value of the determination and slope coefficients, for both firm-quarter and firm-year panels, the coefficients are statistically significant. More importantly, the adjusted R^2 of the firm-year panel

is higher than the same coefficient of the firm-quarter panel. Furthermore, the β_1 of the firm-year panel is relatively higher than the same coefficient of the firm-quarter panel. These estimates indicate that the accounting conservatism in the firm-year panel is stronger than the same in the firm-quarter panel. This finding demonstrates the robustness of using annual data as a proxy to test conservative revenue and earnings recognition effects.

Table 3
Regression outputs - returns models

	Adjusted R^2	$\Delta E_{jt}/P_{jt-1}$	E_{jt}/P_{jt-1}	$\Delta CF_{jt}/P_{jt-1}$	CF_{jt}/P_{jt-1}
Model 1A:					
Firm-Quarter (N = 2,888)	0.001	0.008	–0.061*		
Firm-Year (N = 796)	0.007**	0.020	0.075*		
Model 1B:					
Firm-Quarter (N = 2,830)	0.000	0.010*	–0.069	0.003	0.020
Firm-Year (N = 796)	0.014***	0.074*	0.017	–0.146**	0.095***

Notes:
(1) Model 1A: $R_{jt} = \alpha_0 + \alpha_1 \Delta E_{jt}/P_{jt-1} + \alpha_2 E_{jt}/P_{jt-1} + \varepsilon_{jt}$
(2) Model 1B: $R_{jt} = \alpha_0 + \alpha_1 \Delta E_{jt}/P_{jt-1} + \alpha_2 E_{jt}/P_{jt-1} + \alpha_3 \Delta CF_{jt}/P_{jt-1} + \alpha_4 CF_{jt}/P_{jt-1} + \varepsilon_{jt}$
R_{jt} is the returns of firm j for period t (quarterly or annual returns). ΔE_{jt-1} and E_{jt} are respectively the change and level of earnings per share for firm j and period t. ΔCF_{jt-1} and CF_{jt} are respectively the change and level of operating cash flow per share for firm j and period t. P_{jt-1} is the stock price per share for firm j at the beginning of period t.
(3) ***, ** and * denote significant at 1%, 5% and 10%, respectively.

Table 3 illustrates the regression outputs of the returns models, as per equations 1A (earnings only) and 1B (earnings and operating cash flow). The adjusted R^2s for the returns models with earnings variables (1A) only, in both the firm-quarter and firm-year panels, are at the extreme low end of the scale, i.e., 0.001 and 0.007, respectively. In fact, the adjusted R^2 of the model for the firm-quarter panel is statistically insignificant. For both panels, the level of earnings is only statistically significant at the 5% level, whereas the change in earnings is statistically insignificant in explaining the stock returns. When the operating cash flow variables, both level and change, are included in the model (1B), all of the statistics (adjusted R^2 and slope coefficients) in the firm-quarter panel are statistically insignificant. Indeed, the adjusted R^2 of 0.000 indicates that, collectively, the earnings and operating cash flow, both level and change, have no explanatory power in predicting the stock returns of the sample firms. In contrast, all of the statistics except the earnings level are statistically significant in the firm-year panel. However, the adjusted R^2 remains low at 0.014, which indicates that the model has only limited ability to explain stock returns. At the same time, although the values recorded for the adjusted R^2 and slope coefficients are low, these statistics are considerably higher than those in the firm-quarter panels. The operating cash flow variables are statistically insignificant in the firm-quarter

panels. Furthermore, the inclusion of the statistically significant operating cash flow variables in the firm-year panel of the returns model does improve the explanatory power of the model.

Table 4
Regression outputs - price models

	Adjusted R^2	BV_{jt}	E_{jt}	CFO_{jt}
Model 2A:				
Firm-Quarter (N = 2,964)	0.379***	0.459***	0.536***	
Firm-Year (N = 819)	0.281***	0.296***	0.338***	
Model 2B:				
Firm-Quarter (N = 2,921)	0.380***	0.455***	0.518***	0.326***
Firm-Year (N = 819)	0.301***	0.277***	0.310***	0.593***
Individual variables:		R^2	R^2	R^2
Firm-Quarter		0.372***	0.037***	0.018***
Firm-Year		0.270***	0.094***	0.071***

Notes:
(1) Model 2A: $MV_{jt} = \beta_0 + \beta_1 BV_{jt} + \beta_2 E_{jt} + \varepsilon_{jt}$
(2) Model 2B: $MV_{jt} = \beta_0 + \beta_1 BV_{jt} + \beta_2 E_{jt} + \beta_3 CFO_{jt} + \varepsilon_{jt}$
(3) Regression of individual variables: $MV_{jt} = \beta_0 + \beta_1 X_{jt} + \varepsilon_{jt}$
MV_{jt} is the market value of firm j at time t, BV_{jt} is the book value of equity of firm j at time t, E_{jt} is the reported earnings of firm j for the period ending time t, and CFO_{jt} is the operating cash flow of firm j for the period ending time t. X_{jt} is the individual explanatory variable of firm j at time t.
(4) ***, ** and * denote significant at 1%, 5% and 10%, respectively.

Table 4 illustrates the regression outputs of the price models, as per equations 2A (equity and earnings) and 2B (equity, earnings and operating cash flow). The models in the firm-quarter panel show higher adjusted R^2s than the models in the firm-year panel. This result suggests that the quarterly accounting variables, i.e., the book value of equity, earnings and operating cash flow, collectively explain price movements better than the corresponding annual accounting variables. Examining these variables individually, however, the book value of equity dominates their joint explanatory power in predicting the market price movement of equity. As is clear from Table 4, earnings and operating cash flow contribute minimally to the joint explanatory power. In the firm-quarter panel, earnings and operating cash flows explain only 3.7% and 1.8%, respectively, of the movements in market price. Conversely, in the firm-year panel, earnings and operating cash flow explain 9.4% and 7.1%, respectively, of the movements in market price. In other words, reported annual earnings and operating cash flow have greater explanatory power than reported quarterly earnings and operating cash flow. In terms of the relative explanatory power of

earnings and operating cash flow, the inclusion of operating cash flows in the price model does not significantly improve the adjusted R^2 in the firm-quarter panel (increasing the figure by only 0.001). However, the adjusted R^2 does increase by 0.02 when operating cash flow is added into the price model in the firm-year panel. This result is consistent with the effect in the returns models when operating cash flow variables are included in these models.

Table 5 illustrates the regression outputs of the value of current reported earnings and operating cash flow in predicting future operating cash flows. Overall, current reported earnings and operating cash flow are statistically significant in predicting future operating cash flows. However, these predictive (explanatory power) values are generally at the low end of the scale, with adjusted R^2s lower than 0.01 for the firm-quarter panels and 0.05 for the firm-year panels, respectively. It is also noticeable that current reported earnings (and accruals) and operating cash flow in the firm-quarter panels have lower explanatory power in predicting future operating cash flows than those in the firm-year panels.

Table 5
Regression outputs - Future operating cash flow predictive models

	Adjusted R^2	E_{jt}	CFO_{jt}	$Accruals_{jt}$
Model 3A:				
Firm-Quarter (N = 2,881)	0.002**	0.034**		
Firm-Year (N = 804)	0.011***	0.071***		
Model 3B:				
Firm-Quarter (N = 2,832)	0.006***	0.030**	0.065***	
Firm-Year (N = 804)	0.037***	0.056**	0.169***	
Model 3C:				
Firm-Quarter (N = 2,832)	0.006***		0.095***	0.030**
Firm-Year (N = 804)	0.039***		0.232***	0.067***

Notes:
(1) Model 3A: $CFO_{jt+1} = \gamma_0 + \gamma_1 E_{jt} + \varepsilon_{jt}$
(2) Model 3B: $CFO_{jt+1} = \gamma_0 + \gamma_1 E_{jt} + \gamma_2 CFO_{jt} + \varepsilon_{jt}$
(3) Model 3C: $CFO_{jt+1} = \gamma_0 + \gamma_1 CFO_{jt} + \gamma_2 Accruals_{jt} + \varepsilon_{jt}$
CFO_{jt+1} is the operating cash flow of firm j for period t+1 (future period); E_{jt} are the reported earnings of firm j for period t (current period); CFO_{jt} are the operating cash flows of firm j for period t (current period) and $Accruals_{jt}$ are measured as the earnings of firm j for period t less its corresponding period operating cash flow.
(4) ***, ** and * denote significant at 1%, 5% and 10%, respectively.

The comparison between current reported earnings and operating cash flow provides evidence to support the relationship between the two variables and their joint product, accruals, in predicting future operating cash flows. Both in the

firm-quarter and firm-year panel, the inclusion of current operating cash flow improves the predictive value by a factor of three, i.e., from 0.002 to 0.006 in the firm-quarter panel and 0.011 to 0.037 in the firm-year panel. However, it is possible that the aggregation of earnings might have masked the predictive ability of the accounting variable (see Barth et al., 2001b). A further problem is that putting current earnings and operating cash flow together duplicates the effect of operating cash flow, because the latter is a portion of the earnings when earnings are disaggregated. When current earnings are broken down into their cash and accrual components, this study registers the same value in their ability to predict future operating cash flow (as represented by current operating cash flow and accruals) for the firm-quarter panel, i.e., 0.006, and a slightly higher predictive value, i.e., 0.039, in the firm-year panel.

The above findings suggest that reported quarterly earnings, both the changes and level, are rather weak in explaining the stock returns of the corresponding periods. Although reported quarterly earnings also contribute to stock market pricing, together with the book value of equity, the contribution is minimal. Similarly, the predictive value of current reported quarterly earnings in estimating future operating cash flows is also weak although still statistically significant. In sum, because reported quarterly earnings better reflect the effect of the allocation and recognition of earnings based on an accelerated revenue recognition policy that is in turn based on the local GAAP, overall the findings provide evidence that the decision usefulness of existing revenue recognition policy is low; therefore, H1 is rejected. This finding contradicts the conclusions of Altamuro et al. (2005) and Zhang (2005). Consistent with the FASB's approach, these researchers found that accelerated and early revenue recognition, as a specific industry practice, is value relevant and that the relevant reported revenue and earnings have higher information content. The researchers also found that the subsequent elimination of this industry practice in the US by the SEC had indeed caused a decline in earnings informativeness.

At the same time, the above findings suggest that reported annual earnings, both the changes and level, explain the stock returns of the corresponding period better than reported quarterly earnings – albeit in absolute terms, the explanatory power of annual earnings remains on the low side. Reported annual earnings, together with the book value of equity, also contribute better than reported quarterly earnings to the overall explanatory power in predicting stock market pricing. Similarly, the predictive value of current reported annual earnings in estimating future operating cash flows is also weak although still statistically significant. Again, however, these earnings' predictive value is better than that of reported quarterly earnings. These observations suggest that reported earnings, based on an accelerated revenue recognition policy (quarterly data as a proxy), are less decision-useful compared with a

conservative revenue recognition policy (annual data as a proxy); therefore, H2 is accepted. These findings support the contention that aggressive revenue and earnings recognition provides a lower quality of reported earnings (see Leuz et al., 2003; Marguart & Wiedman, 2004; Dechow et al., 2010).

In summary, neither the findings from the quarterly panels nor the findings from the annual panels suggest that the existing revenue and earnings recognition policy is decision-useful. At the same time, from the perspective of recognition timing, reported annual earnings do reflect the accumulation of earnings over four quarters. Thus, even if a stage-of-completion basis is used, the consequent accumulation effect makes annual earnings relatively more conservative in revenue and earnings recognition than the quarterly recognition basis. This finding provides a hypothetical insight into the likely decision usefulness of reported earnings if IFRIC 15 is implemented. Because the decision usefulness of reported annual earnings, although still low, is better than that of reported quarterly earnings, the implementation of IFRIC 15 might not improve the decision usefulness of reported earnings in any significant manner.

Looking first at the quarterly panel, the findings suggest that current reported quarterly earnings are not more decision-useful than quarterly operating cash flow; therefore, H3 is rejected. However, the findings from the firm-year panel show current operating cash flow to be more decision-useful than reported current earnings in predicting stock returns and market pricing and future operating cash flows, hence accepting H3. In general, this evidence tends to support the conclusion that revenue recognition policy does not really matter, because operating cash flow is theoretically independent of revenue recognition policy (which is a product of accrual assumption), assuming there is no change in tax rules.

Taken together, the findings show that the decision usefulness of financial reporting for Malaysian property developers is low and that any change in revenue and earnings recognition might not improve the decision usefulness significantly. This finding suggests that the implementation of IFRIC 15, an IFRS interpretation, may not really matter, at least in the short run. Similar to numerous other countries adopting the IFRS, the expectation in Malaysia is that the overall decision usefulness of financial reporting will improve when the IFRS are fully implemented. Thus far, however, the evidence concerning the decision usefulness of IFRS adoption has been mixed. Aharony, Barniv and Falk (2010) found that financial reporting based on IFRS among selected European Union (EU) countries was value relevant, whereas Devalle, Onali and Magarini (2010) found that the increase in value relevance was mixed. Outside of the EU, Chua, Cheong and Gould (2012) found that accounting quality since the IFRS adoption had improved in Australia, and Liu, Yao and Liu (2011) made the same observation in

China. Conversely, Lin and Paananen (2009) and Lau (2010) found evidence that the decision usefulness of financial reporting based on the IFRS had not improved since the latter's implementation. At the same time, Devalle et al. (2010) and Lau (2010) found that the influence of reported earnings compared to the book value of equity had improved since the adoption of the IFRS.

CONCLUSIONS AND RECOMMENDATIONS

The implementation of IFRIC 15 is expected to eliminate the industry practice of accelerated revenue recognition among Malaysian property developers. This study concludes, however, that the planned elimination of current industry practice (accelerated recognition) and its proposed replacement by a more conservative recognition practice may not have significant economic consequences, at least in the short run. As this study has shown, the decision usefulness of financial reporting based on existing revenue recognition is weak, and hence its elimination will take away few if any benefits. Furthermore, the decision usefulness of the new revenue recognition is yet to be ascertained. As noted in this study, the decision usefulness of reported earnings is as good (or as poor) as operating cash flow only when accruals are considered. Hence, the critical question is whether the introduction of a more conservative revenue and earnings recognition practice is likely to enhance the decision usefulness of reported earnings among Malaysian property developers. This empirical question warrants future research.

The shift from accelerated to conservative revenue and earnings recognition will reduce reporting discretion among Malaysian property developers. In turn, this decrease in discretion will reduce the accrual-based earnings management opportunities among property developers. It is reasonable to expect that firms may shift to other earnings management alternatives, which will help them to recover the effect of losing the current net benefits from earnings management when the existing earnings management opportunities diminish (see Zhong et al., 2010). In the absence of discretion to recognise revenue and earnings at the various earlier stages of completion, it is sensible to predict that property developers will plan the completion timing of their projects in a way that allows these developers to achieve revenue and earnings recognition at shorter intervals (ideally for each interim period, whenever feasible). In other words, we are likely to see a shift from accrual-based earnings management to real earnings management (see Cohen et al., 2008).[14]

A sensible question at this juncture is the following: what are the significant value drivers if reported earnings and operating cash flow are not significant in driving stock returns and the market pricing of Malaysian property

developers? In other words, what will happen if and when the stock valuation of property developers is no longer grounded on these fundamental performance indicators of the firms? This empirical question also warrants future research. From a different perspective, what makes equity capital providers continue to hold on to their investments despite the investments' prolonged undervaluation for years, as indicated by their lower-than-net-asset-value market capitalisation? This area could provide fruitful inquiry for researchers, market participants and regulators.

NOTES

1. The Malaysian Accounting Standards Board (MASB) has adopted the International Financial Reporting Standards (IFRS), including the IFRS Interpretations (IFRICs), since its formation in 1996, with the aim of harmonising its Financial Reporting Standards (FRS), including the IC Interpretations, to the IFRSs. The IFRICs are interpretations issued by the IFRS Interpretations Committee. IC Interpretations are IFRICs adopted and issued by the MASB.
2. The IFRIC interpretation draft is the exposure draft of IFRIC 15 (IASB, 2007).
3. IFRIC 15 addresses two issues. First, whether a property development and sale agreement is within the scope of IAS 11 or IAS 18; and second, the timing of revenue recognition for the property and sale agreement (IASB, 2008). IAS 18 *Revenue* prescribes the recognition criteria for reporting entities to recognise revenue arising from the sale of goods and the rendering of services (IASB, 2009). IAS 11 *Construction Contracts* also prescribes the recognition criteria for reporting entities to recognise revenue arising from the rendering of services by way of construction contracts. IAS 11 defines a construction contract as a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use (IASC, 1993).
4. Based on the terms of the agreement and all of the surrounding facts and circumstances; judgment would be required with respect to each agreement (IASB, 2008).
5. Nevertheless, the property development industry has not been identified as a specific industry in the study of Altamuro *et al*. (2005), which is affected by the elimination of industry practice.
6. See Dechow and Skinner (2000) for a detailed discussion on 'aggressive' accounting and 'conservative' accounting in the context of earnings management.

7. Conversely, it is noted that Basu (1997) defined accounting conservatism as the timeliness of earnings in reflecting 'bad news', i.e., the recognition of losses, compared to 'good news'. In addition to timeliness in reflecting bad news (asymmetric timeliness), Brown, Dobbie and Jackson (2011; also see Beekes and Brown, 2006) included timeliness in reporting (reporting lag), and the timeliness with which stock prices and returns reflect reported information (price discovery) as the notions of timeliness.
8. Quarterly data are the data available for the shortest possible interval because Malaysian property developers do not disclose monthly interim data.
9. In Malaysia, the statutory construction and delivery period, as required in a standard SPA, is two years for a standard landed property and three years for a property sharing a common piece of land, such as a condominium or apartment.
10. Basu's (1997) interpretation of accounting conservatism is based on the timeliness of reporting firms in reporting and of market prices in reflecting 'bad news' and 'good news'. In the relevant literature, numerous other studies attempted to measure the timeliness of reported earnings as an attribute of the decision usefulness of accounting information (for instance, see Beekes and Brown, 2006; and Brown et al., 2011). Nevertheless, these studies have not focused on accounting conservatism. Also see note 7.
11. Period *t* refers to quarter *t* in the firm-quarter panel and year *t* in the firm-year panel, respectively. In Malaysia, a listed reporting entity is required to disclose interim data on a quarterly basis. Quarterly disclosures must be made within two months of the end of the fiscal quarter. Hence, quarterly returns are calculated on a three-month period ending two months after the fiscal quarter ends. Annual disclosure must be made within four months of the end of the fiscal year. Therefore, annual returns are calculated on a 12-month period ending four months after the fiscal year ends.
12. Based on the disclosure deadlines discussed in note 11, time *t* is as of two months after the fiscal quarter-end in the firm-quarter panel, and time *t* is as of four months after the fiscal year-end in the firm-year panel.
13. This observation, however, does not reflect the extent of earnings management among the sample firms.
14. Real earnings management refers to the manipulation of real activities (for instance, operating activities) to achieve the targeted earnings. Real earnings management affects cash flows, whereas accrual-based earnings management does not affect cash flows (see Cohen et al., 2008; and Cohen and Zarowin, 2010 for detailed discussions on real earnings management).

REFERENCES

Aharony, J., Barniv, R., & Falk, H. (2010). The impact of mandatory IFRS adoption on equity valuation of accounting numbers for security investors in the EU. *European Accounting Review, 19*(3), 535–578.

Ali, A., & Zarowin, P. (1992). The role of earnings levels in annual earnings - returns studies. *Journal of Accounting Research, 30*(2), 286–296.

Altamuro, J., Beatty, A. L., & Weber, J. (2005). The effects of accelerated revenue recognition on earnings management and earnings informativeness: Evidence from SEC Staff Accounting Bulletin No. 101. *Accounting Review, 80*(2), 373–401.

Bartov, E., Goldberg, S. R., & Kim, M. (2005). Comparative value relevance among German, U.S. and International Accounting Standards: A German stock market perspective. *Journal of Accounting, Auditing & Finance, 20*, 95–119.

Barth, M. E., Beaver, W. H., & Landsman, W. R. (2001a). The value-relevance literature for financial accounting standard setting: Another view. *Journal of Accounting and Economics, 39*, 77–104.

Barth, M., Cram, D., & Nelson, K. (2001b). Accruals and the prediction of future cash flow. *The Accounting Review, 76*, 27–58.

Barth, M., Landsman, W., & Lang, M. (2008). International accounting standards and accounting quality. *Journal of Accounting Research, 46*, 467–498.

Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics, 24*(1), 3–37.

Basu, S., & Waymire, G. (2008). Has the importance of intangibles really grown? And if so, why? *Accounting and Business Research - International Accounting Policy Forum*, 171–190.

Beekes, W., & Brown, P. (2006). Do better-governed Australian firms make more informative disclosures? *Journal of Business Finance & Accounting, 33*(3–4), 422–450.

Biddle, G. C., Seow, G. S., & Siegel, A. (1995). Relative versus incremental information content. *Contemporary Accounting Research, 12*, 1–23.

Black, E. L. (2003). Usefulness of financial statement components in valuation: An examination of start-up and growth firms. *Venture Capital, 5*(1), 47–69.

Brown, P., Dobbie, G.W., & Jackson, A.B. (2011). Measures of the timeliness of earnings. *Australian Accounting Review, 21*(3), 222–234.

Chandra, U., & Ro, B. T. (2008). The role of revenue in firm valuation. *Accounting Horizons, 22*(2), 199–222.

Charitou, A. (1997). The role of cash flows and accruals in explaining security returns: Evidence for the UK. *European Accounting Review, 6*(4), 629–652.

Cheng, C. S. A., Liu, C. S., & Schaefer, T. F. (1997). The value-relevance of SFAS no. 95 Cash flows from operations as assessed by security market effects. *Accounting Horizons, 11*(3), 1–15.

Christensen, H. B., Lee, E., & Walker, M. (2007). Cross-sectional variation in the economic consequences of international accounting harmonisation: The case of mandatory IFRS adoption in the UK. *International Journal of Accounting, 42*,

341–379.

Chua, Y. L., Cheong, C.S., & Gould, G. (2012). The impact of mandatory IFRS adoption on accounting quality: Evidence from Australia. *Journal of International Accounting Research, 11*(1), 119–146.

Cohen, D., Dey, A., & Lys, T. (2008). Real and accrual based earnings management in the pre and post Sarbanes Oxley periods. *Accounting Review, 83*, 757–787.

Cohen, D., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics, 50*, 2–19.

Collins, D. W., Maydew, E. L., & Weiss, I. S. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics, 24*, 39–67.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research, 46*(5), 1085–1142.

Davis, A. K. (2002). The value relevance of revenue for internet firms: does reporting grossed-up or barter revenue make a difference? *Journal of Accounting Research, 40*(2), 445–477.

Dechow, P. (1994). Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Accounting and Economics (July)*, 3–42.

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics, 50*, 344–401.

Dechow, P., Kothari, S., & Watts, R. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics, 25*, 133–168.

Dechow, P., & Skinner, D. (2000). Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons, 14*, 232–250.

Devalle, A., Onali, E., & Magarini, R. (2010). Assessing the value relevance of accounting data after introduction of IFRS in Europe. *Journal of International Financial Management and Accounting, 21*(2), 85–119.

Easton, P. D. (1985). Accounting earnings and security valuation: empirical evidence of the fundamental links. *Journal of Accounting Research, 23*(Suppl.), 54–77.

Easton, P., & T. Harris. (1991). Earnings as an explanatory variable for returns. *Journal of Accounting Research, 29*, 19–36.

Eccles, T., Holt, A., & Fell-Smith, W. (2005). Revenue recognition and real estate companies: A preliminary analysis. *Briefings in Real Estate Finance, 4*(3), 245–270.

Feltham, G. A., & Ohlson, J. A. (1995). Valuation and clean surplus accounting for operating and financial activities. *Contemporary Accounting Research, 11*, 689-732.

Francis, J., & Schipper, K. (1999). Have financial statements lost their relevance? *Journal of Accounting Research, 37*, 319–352.

Graham, R., & King, R. (2000). Accounting practices and the market valuation of

accounting numbers: Evidence from Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. *International Journal of Accounting, 35*(4), 445–470.

Greenberg, R., Johnson, G., & Ramesh, K. (1986). Earnings versus cash flow as a predictor of future cash flow measures. *Journal of Accounting, Auditing and Finance, 1*(4), 266–277.

Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons, 13*(4), 365–383.

Hung, M., & Subramanyam, K. R. (2007). Financial statement effects of adopting International Accounting Standards: The case of Germany. *Review of Accounting Studies, 12*, 623–657.

International Accounting Standards Board (IASB) (2007). *IFRIC draft interpretation D21 real estate sales*. London: Author.

IASB. (2008). IFRIC 15 *agreements for the construction of real estate*. London: Author.

IASB. (2009). IAS 18 *Revenue*. London: Author.

IASB. (2010). *Conceptual Framework for Financial Reporting*. London: Author.

International Accounting Standards Committee (IASC) (1993). IAS 11 *Construction Contracts*. London: Author.

Kim, M., & Kross, W. (2005). The ability of earnings to predict future operating cash flows has been increasing - not decreasing. *Journal of Accounting Research, 43,* 753–780.

Kohlbeck. M., & Warfield, T. D. (2007). Unrecorded intangible assets: Abnormal earnings and valuation. *Accounting Horizons, 21*(1), 23–41.

Kothari, S. P. (2001). Capital markets research in accounting. *Journal of Accounting and Economics, 31*(September), 105–150.

Lau, C. K. (2010). Value relevance of financial reporting in Malaysia: Evidence from three different financial reporting periods. *International Journal of Business and Accountancy, 1*(1), 1–19.

Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics, 69*, 505–527.

Lin, H. & Paananen, M. (2009). The development of accounting quality of IAS and IFRS over time: The case of Germany. *Journal of International Accounting Research, 8*(1), 31–55.

Liu, C., Yao, L. J., & Liu, L.(2011). The impact of IFRS on accounting quality in a regulated market: An empirical study of China. *Journal of Accounting Auditing and Finance, 26*(4), 659–676.

Malaysian Accounting Standards Board (MASB) (2001). FRS 201 *Property development activities.* Kuala Lumpur: Author.

MASB. (2010a). IFRIC 15 *Agreements for the construction of real estate.* Kuala Lumpur: Author.

MASB. (2010b). *Notice amendment to IC interpretation*. Retrieved from http://www.masb.org.my/images/stories/Notice_30Aug2010.pdf

MASB. (2011a). *Malaysia's convergence with IFRS in 2012*. Retrieved from http://www.masb.org.my/index.php?option=com_content&view=article&id=1659:masb-issues-internationally-compliant-accounting-framework-and-new-frss-19-november-2011&catid=66&Itemid=37

MASB. (2011b). *Conceptual framework of financial reporting*. Kuala Lumpur: Author.

Marquardt, C., & Wiedman, C. (2004). The effect of earnings management on the value relevance of accounting information. *Journal of Business Finance and Accounting, 31*, 297–332.

Nelson, M. W., Elliott, J. A., & Tarpley, R. L. (2003). How are earnings managed? Examples from auditors. *Accounting Horizons, 17*(Supplement), 17–35.

Nik, M. H. Y. (2009). *Would IFRIC 15 make property development in Malaysia more challenging?* The Edge, 17 March.

Nordin, Z. (2009). *New era of financial reporting for developers*. The Edge, 24 August.

Ohlson, J. A. (1995). Earnings, book value and dividends in equity valuation. *Contemporary Accounting Research, 11*(2), 661–687.

Ohlson, J. A., Penman, S. H., Biondi, Y., Bloomfield, R. J., Glover, J. C., Jamal, K., & Tsujiyama, E. (2011). Accounting for revenues: A framework for standard setting. *Accounting Horizons, 25*(3), 577–592.

Penman, S., & Sougiannis, T. (1998). A comparison of dividend, cash flow, and earnings approaches to equity valuation. *Contemporary Accounting Research, 15*, 343–383.

Skinner, D. J. (2008) Accounting for intangibles - A critical review of policy recommendations. *Accounting and Business Research, 38*(3), 191–204.

Sofie, V. D. M, Ann, G., & Marleen, W. (2007). Attribute differences between U.S. GAAP and IFRS earnings: an exploratory study. *International Journal of Accounting, 42*(2), 123–142.

Zhang, Y. (2005). Revenue recognition timing and attributes of reported revenue: The case of software industry's adoption of SOP 91-1. *Journal of Accounting and Economics, 39*(3), 535–561.

Zhong, K., Welker, R., & Gribbin, D. (2010). Method-shifting in aggressive earnings reporting: The case of the US software industry's response to new US regulation. *Journal of Business Finance and Accounting, 37*(7&8), 792–814.