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PREDICTIVE VALUE OF OTHER COMPREHENSIVE INCOME: EVIDENCE FROM ASEAN

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Abstract

This paper examines the predictive value of other comprehensive income and its disclosure in ASEAN. Unlike value relevance, the predictive value of other comprehensive income has not been extensively addressed in the literature. We conduct the first study examining the predictive value of other comprehensive income and its disclosure to prove that not only fair value as relevant information, but also other comprehensive income reflecting the changes of fair value. We use hand-collected data taken from the financial reports. This study employs a panel regression model to test the ability of other comprehensive income and its disclosure to predict firms’ future performance. The results confirm that as relevant information, other comprehensive income and its disclosure have predictive value. In addition, other comprehensive income which interacted with disclosure of other comprehensive income resulted predictive value only for one year ahead. Furthermore, other comprehensive income components which belong to fair value level 1 and 2 have predictive value because it uses market-based input. Meanwhile, other comprehensive components which belong to fair value level 3 only have predictive value for one year ahead because it uses unobservable input that can lead to higher subjectivity.

Keywords: disclosure, fair value, other comprehensive income, predictive value

Abstrak

Penelitian ini bertujuan untuk menguji nilai prediktif laba komprehensif lain dan pengungkapan laba komprehensif lain di ASEAN. Tidak seperti relevansi nilai, nilai prediktif laba komprehensif lain tidak banyak dibahas di dalam literatur. Kami melakukan penelitian pertama untuk menguji nilai prediktif laba komprehensif lain dan pengungkapan laba komprehensif lain untuk membuktikan bahwa tidak hanya nilai wajar yang menjadi informasi relevan, tetapi juga laba komprehensif lain yang menggambarkan perubahan nilai wajar. Kami menggunakan data hand-collected yang diambil dari laporan keuangan. Penelitian ini menggunakan model regresi data panel untuk menguji kemampuan laba komprehensif lain dan pengungkapan laba komprehensif lain untuk memprediksi kinerja perusahaan di masa depan. Hasil penelitian menegaskan bahwa sebagai informasi yang relevan, laba komprehensif lain dan pengungkapan laba komprehensif lain memiliki nilai prediktif. Kemudian, laba komprehensif lain yang diinteraksikan dengan pengungkapan laba komprehensif lain menghasilkan nilai prediktif hanya untuk satu tahun mendatang. Selanjutnya, komponen laba komprehensif lain yang masuk nilai wajar tingkat 1 dan 2 memiliki nilai prediktif karena menggunakan input berbasis pasar. Sementara itu, komponen laba komprehensif lain yang masuk nilai wajar tingkat 3 hanya memiliki nilai prediktif untuk satu tahun ke depan karena menggunakan unobservable input yang menyebabkan subjektivitas yang lebih tinggi.

Kata Kunci: laba komprehensif lain, nilai prediktif, nilai wajar, pengungkapan
INTRODUCTION

This study examines the predictive value of other comprehensive income and its disclosure in ASEAN. Ehalaiye et al. (2017) and Bandyopadhyay et al. (2017) provided evidence that the fair value of banks’ net assets and investment properties have predictive value. This research expands Ehalaiye et al. (2017) and Bandyopadhyay et al. (2017) by investigating the ability of other comprehensive income and disclosure of other comprehensive income to predict the future performance of financial companies in ASEAN.

Reporting of other comprehensive income has been criticized by scholars. Previous studies showed that other comprehensive income has different characteristics from net income (Khan and Bradbury 2014; Lee and Park 2013; Kanagaretanam et al. 2009; Dhaliwal et al. 1999). Where it should be reported is also still debated, in a single statement with profit and loss statement or in a different statement (Gordon et al. 2015; Kanagaretanam et al. 2009; Dhaliwal et al. 1999). Other comprehensive income has value relevance (Veltri and Ferraro 2018; Khan and Bradbury 2014; Lee and Park 2013; Jones and Smith 2011; Kanagaretanam et al. 2009), has risk relevance and greater volatility than net profit (Khan and Bradbury 2014; Hodder et al. 2005). In addition, other comprehensive income differs from special items because it has predictive value and persistent (Jones and Smith 2011).

As of 2018, more than 145 countries worldwide have adopted International Financial Reporting Standards (IFRS) as high-quality international accounting standards issued by International Accounting Standards Board (IASB) which increasing comparability of financial statements (www.ifrs.org; Lin et al. 2017). As principles-based standards, IFRS extensively uses management’s professional judgement. Management judgement would alleviate financial statements qualities because of its subjectivity matter (Khan and Bradbury 2014; Lee and Park 2013; Kanagaretanam et al. 2009; Dye and Sridhar 2008). Nevertheless, professional judgment is evidence that the accountant is professional (Rankin et al. 2012). IFRS increases using fair value measurement (Georgiou and Jack 2011) for instance by issuing IFRS 13: Fair Value Measurement.

Other comprehensive income is used to report changes in fair value measurement (IASB 2013; Lee and Park 2013; Kanagaretanam et al. 2009). Fair value measurement is still debatable. Proponents explain that fair value improves financial reportings quality because it improves comparability (Lin et al. 2017; Barth et al. 2012), has predictability (Ehalaiye et al. 2017; Bandyopadhyay et al. 2017), more relevant than historical cost (Koonce and Shakespeare 2011; Barth 1994); improves reliability (McDonough and Shakespeare 2015); improves transparency (Elbannan and Elbannan 2015), and reduces earning management (Silva and Nardi 2017; Doukakis 2010).

On the other hand, the opponents show that fair value decreases financial reportings quality because it uses more discretionary of management (Lin et al. 2017; Badia et al. 2017; Fargher and Zhang 2014), contributes to the financial crisis (Liao et al. 2013; Laux and Leuz 2010), and causes restatement in the later period (Lin et al. 2017).

In 2013, IASB issued disclosure initiatives which required larger disclosure to encourage decision uselessness of financial statements (Devalle et al. 2016). Disclosure is an inseparable component of financial reporting (IASB 2011) which will be able to decrease opportunistic behaviour of management (Lu and Shi 2018).

This study offers novelty because it differs from previous studies in two ways. First, this study focuses on the predictive value of other comprehensive income and its disclosure. There are limited studies conducting research on this topic. Value relevance is the ability of firms’ information in financial statements to reflect
firms value by investigating firms financial informations and share price or return (Barth et al. 2001). While, predictive value is defined as the ability of an information contained in financial statements to predict firms’ future performance (Ehalaiye et al. 2017).

Disclosure is important to indicate that the companies follow each accounting standard regulating each component of other comprehensive income. We construct our own disclosure index based on accounting standards regulating indicators should be disclosed relating to other comprehensive income. Previous studies focusing their discussion on the value relevance of reporting other comprehensive income and there still limited studies on the predictive value of other comprehensive income and its disclosure following each accounting standard regulates other comprehensive income components.

Second, this is the first study aims to examine the predictive value of other comprehensive income in ASEANs’ firms in aggregate as a whole number of other comprehensive income reported in financial statements and disaggregate following each component of other comprehensive income based on the fair value hierarchy. Predictive value has not been extensively documented in the literature, unlike value relevance researches (Ehalaiye et al. 2017). We expand the study from Ehalaiye et al. (2017) which documented the predictive value of banks’ net asset fair value in the US. Previous researches of other comprehensive income focused on value relevance and risk relevance (Khan and Bradbury 2014; Lee and Park 2013; Kanagaretnam et al. 2009; Dhaliwal et al. 1999). This study focuses on five ASEAN countries, namely Indonesia, Malaysia, Singapore, Philippines, and Thailand. IFRS adoption in ASEAN supports fair value measurement to increase comparability of financial reporting in this region.

This study uses hand-collected data taken from each financial report of firms in ASEAN. We read each financial report one by one manually to collect data needed in the analysis. In the end, we use 440 observations during 4 years study period as our sample. The results show that other comprehensive income and its disclosure are relevant information because they have predictive value. Reporting of other comprehensive income is able to predict one year and two years ahead operating performance of the firms. It means that firms reporting other comprehensive income in this year, it will increase operating profit in the next one year and two years ahead.

In additional analysis, we interact other comprehensive income and its disclosure and found that it only has one year ahead predictive value. Besides, we break down other comprehensive income based on fair value hierarchy following underlying asset and liabilities, we found that other comprehensive income component which belongs to fair value level 1 and 2 have predictive value because input used in fair value level 1 and 2 are market-based input. Therefore, it has a higher objectivity. Meanwhile, for other comprehensive income components which belong to the fair value level, 3 only have predictive value for one year ahead. It can be explained because the input used in fair value level 3 is unobservable input. Thus, it raises subjectivity because of managerial judgement (Khan and Bradbury 2014; Kanagaretnam et al. 2009).

The remainder of this paper is presented as follows: in section 2, this paper discusses the theoretical framework and hypotheses development. In section 3, this paper outlines the research method. In section 4, this paper reports empirical results whilst in section 5 this paper presents conclusion and limitation.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Literature Review

The institutional theory introduced by Zucker (1987); Meyer and Rowan (1978)
explained that in the firms’ operationalization, management institutionalizes external factors outside the firms, such as rules, norms, routine activities, and standards. Management does that to follow the normal practices as guidelines in running the firms (Rankin et al. 2012). Accounting standards, namely IFRS 13 (Fair Value Measurement) and IAS 1 (Presentation of Financial Statements) will be institutionalized by management to comply with those standards. It is in line with the institutional theory. Fair value measurement in IFRS 13 uses the term ‘exit price’, both based on IFRS and US GAAP (IASB 2013; FASB 2007).

Institutional theory is used to convey that management comply with IFRS as accounting standards on reporting and disclosing other comprehensive income. Accounting standard is one of the external factors considered to prepare financial statements. Therefore, other comprehensive income will be relevant information to predict future performance.

Based on IFRS 13 (IASB 2013) fair value is defined as the price at which an orderly transaction to sell an asset or transfer a liability would take place between market participants at the measurement date under current market conditions. The price used at fair value measurement is exit price which reflects seller intention to sell. Thus, the exit price used at fair value measurement is an estimation. Both, the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) use the same term to define fair value (FASB 2007; IASB 2013).

Fair value has three levels of hierarchy based on the input used to determine the value reported based on fair market value (IASB 2013). Fair value level 1 is used when the quoted input price or assets or liabilities is available at the market. Fair value level 2 is used when the quoted price for the asset or liabilities is not available, but there is a price for identical assets or liabilities. While fair value level 3 is used when there is no price for certain or identical assets and liabilities. Thus, fair value level 3 uses unobservable input based on the managerial judgment which raises subjectivity matter (Lee and Park 2013).

Firms which use fair value measurement are required to adjust the fair value of each asset or liability in the end of the fiscal year to determine the increase or decrease on fair value measurement. In addition, other comprehensive income uses to report the changes of fair value measurement in each period and accumulated in the firm’s equity. Thus, the level of changes in the fair value hierarchy followed the underlying assets or liabilities based on IFRS 13 (IASB 2013; IASB 2011).

Other comprehensive income has five components based on IAS 1 (IASB 2011). Each component has its own fair value hierarchy. Other comprehensive income comprises remeasurement of securities categorized as Available for Sale (AFS), foreign currency translation adjustment, the effective portion of cash flow hedge, revaluation surplus of fixed assets, and actuarial gain or loss of post-retirement benefit.

Remeasurement of Securities Categorized As Available for Sale (AFS)

The fair value of financial instruments securities categorized as Available for Sale (AFS) is determined based on the quoted price available at the market. This component is regulated at IFRS 9 and IFRS 7. Because of the availability of quoted price at the market, based on IFRS 13 (IASB 2013), those securities are included at fair value level 1. Moreover, for the changes in the fair value of those securities are also included at fair value level 1.

Foreign Currency Translation Adjustment

Foreign currency adjustment stipulates at IAS 21 (IASB 2008). Based on this standard, management must determine measurement and operational currency of their firms. Foreign currency translation is used in the consolidation process. When they translate their foreign currency cause
emerging of gain or loss, those accounts will be put at other comprehensive income. Based on IFRS 13 (IASB 2013) foreign currency translation is included at fair value level 2 because there is foreign currency data at the market and they can use it to adjust their foreign currency based on currency they used. Thus, unrealized gain or loss raised from this translation will be also included at fair value level 2.

The Effective Portion of Cash Flow Hedge

Based on IFRS 9 (IASB 2014) assessment of cash flow hedge instruments is based on underlying assets. The fair value of this cash flow hedge is based on the interest rate at the market. The existence of the information of interest rate at the market is useful for firms to determine the fair value estimate of their cash flow hedge. Based on IFRS 13 (IASB 2013) they will be included at fair value level 2 and so for the effective portion of cash flow hedge which reported at other comprehensive income.

Revaluation Surplus of Fixed Assets

Based on IA 16: Fixed Asset (IASB 2013), firms might choose to use a cost model or revaluation model to value their fixed assets. For firms which the revaluation model, if there is a revaluation surplus which is raised from the difference between book value and market value of the assets, it will be reported at other comprehensive income. This component belongs to fair value level 3 because there is no market price exist for their fixed asset so that the management should use their professional judgment to value their fixed assets (IASB 2013).

Actuarial Gain or Loss of Post-Retirement Benefit

IAS 19 (IASB 2011) requires input used by firms to determine the present value of asset or liabilities of post-retirement benefit program is based on the discount interest rate, inflation and expected return of the program, and improvement of compensation (Lee and Park 2013). Based on IFRS 13 (IASB 2013) it implies that determination of actuarial gain or loss of post-retirement benefit belongs to fair value level 3 because there are many assumptions which required discretion of actuaries and there is no market value for this value.

Hypothesis Development

Predictive Value of Other Comprehensive Income

Predictive value is the ability of accounting information to be an input for an investor to form their own expectations about the future (Kieso et al. 2017, 72). Predictive value is a component of relevant information in line with the conceptual framework (IASB 2018; Kieso et al. 2017, 72). Previous literature confirms that uses of fair value higher predictive value (Ehalaiye et al. 2017; Bandyopadhyay et al. 2017; Marton and Runesson 2017; Persakis and Iatridis 2017; Houqe et al. 2016; Ismail et al. 2013; Doukakis 2010; Herrmann et al. 2006).

This study uses five components of other comprehensive income based on IAS 1 (IASB 2011). It comprises of remeasurement of Available for Sale (AFS) securities which belong to fair value level 1, foreign currency translation adjustment that belongs to fair value level 2, effective portion of cash flow hedge that belongs to fair value level 2, revaluation surplus of fixed asset which belongs to fair value level 3, and remeasurement of post-retirement benefit which belongs to fair value level 3 (Khan and Bradbury 2014; IASB 2013; IASB 2011; Kanagaretnam et al. 2009). Other comprehensive income is used to report unrealized gain and loss that will be realized in the following year (Khan and Bradbury 2014; IASB 2011; Jones and Smith 2011; Dhaliwal et al. 1999).

Ehalaiye et al. (2017) documented that the fair value of the net asset of the banks in the United States has predictable value. Bandyopadhyay et al. (2017) also documented that the fair value of investment property of publicly listed firms in
Canada has predictive value. Evans et al. (2010) proved that the fair value measurement of investment securities has predictive value. Aboody et al. (1999) found that a revaluation surplus of the fixed asset has predictive value.

In addition, many previous pieces of literature documented other comprehensive income as relevant information (Veltri and Ferraro 2018; Khan and Bradbury 2014; Lee and Park 2013; Jones and Smith 2011; Kanagaretnam et al. 2009; Dhaliwal et al. 1999). Khan and Bradbury (2014) and Kanagaretnam et al. (2009) documented that other comprehensive income has risk relevance because it is used to report transitory and dominated by unrealized components. However, no previous study examined the predictive value of other comprehensive income. Relevant accounting information should be able to predict the future operating performance of the firms. Adoption of IFRS as high quality of financial accounting standards has increased predictive value of accounting information (Ehalaiye et al. 2017; Bandyopadhyay et al. 2017; Marton and Runesson 2017; Persakis and Iatridis 2017; Silva and Nardi 2017; Houqe et al. 2016; Ismail et al. 2013; Doukakis 2010; Herrmann et al. 2006).

Other comprehensive income which used to report unrealized gain or loss reflects fair value changes of assets or liabilities owned by the firms. As relevant information, other comprehensive income should be able to predict firms’ future performance. Based on the theory and previous studies presented above, this study proposes the first hypothesis as follows:

\[ H_1: \text{Other comprehensive income has predictive value of future operating performance} \]

**Predictive Value of Disclosure of Other Comprehensive Income**

Disclosure is an inseparable component of financial statements (IASB 2011). Eccher et al. (1996) is the first paper examining fair value disclosure. In 2013, IASB issued disclosure initiatives to encourage wider disclosure (Devalle et al. 2016). Higher disclosure is able to reduce opportunistic managerial behaviour (Lu and Shi 2018).

Disclosure is presented at financial statements or notes of financial statements. This study focus on all of the information presented by firms related to other comprehensive income. This study uses each accounting standard to determine the disclosure level of each component of other comprehensive income. We do so because there are no specific accounting standards required disclosure of other comprehensive income. IAS 1 (IASB 2011) merely stipulates about the components of other comprehensive income.

In addition, higher disclosure level leads to an increase in the relevance of accounting information (Shi et al. 2017). After the adoption of IFRS, it improves the disclosure requirement (Malaquias and Zambra 2018). Firms have better disclosure of other comprehensive income will increase the relevance of this information. Thus, it leads to a higher predictive value of other comprehensive income.

Based on institutional theory, accounting standards that regulate the disclosure of other comprehensive income will be institutionalized by management. Thus, firms will produce high quality of disclosure in line with disclosure requirement in IFRS 7 and IFRS 9 for AFS securities and cash flow hedge, IAS 19 for foreign currency translation, IAS 16 for a fixed asset, and IAS 24 for post-retirement benefit. Disclosure of other comprehensive income leads to a higher of objectivity of this information for investors because it will be able to lower opportunistic behaviour of management and lower information asymmetry.

Disclosure of other comprehensive income which is self-constructed by this study is used to disclose any information related to every component of other comprehensive income. As relevant information, disclosure of other comprehensive
income should be able to predict firms’ future performance. Based on the theory and previous studies presented above, we propose our second hypothesis:

\[ H_2: \text{Disclosure of other comprehensive income has predictive value of future operating performance} \]

**Institutional Settings**

Indonesian Accounting Standards Board (Dewan Standar Akuntansi Keuangan – DSACKAI) is a part of The Indonesian Institute of Accountants (Ikatan AkuntanIndonesia – IAI) which tasked to establish accounting standards in Indonesia called Standar Akuntansi Keuangan (SAK). Until 2020, Indonesia has not fully adopted IFRS as the single set of accounting standards. Otherwise, this country has committed to set IFRS as high quality accounting standards since 2008 and used the term of converge its local accounting standards to IFRS. In 2012, SAK has been in line with IFRS issued in 2009. Since 2012, this country has committed to shorten the time delay of IFRS and SAK convergence by maintaining its gap from 3 years to only 1 year. Listed companies in Indonesia follow SAK as the reporting standards instead of IFRS.

Based on IASB (2020), due process done by DSACKAI to converge SAK and IFRS is explained as follows. First, DSACKAI identifies the SAK which will converge to IFRS. Then, the body conducts research and analysis of concepts and issues relating to the IFRS. After that, the body conducts limited consultation with relevant stakeholders of the standard followed by public consultation by issuing exposure draft and public hearing and deliberate of public comments. The last process taken by the body is the issuance of SAK converged with IFRS.

Malaysia Accounting Standards Board (MASB) is independent board to issue and regulate accounting and financial reporting in Malaysia. All listed companies in Malaysia must follow IFRS which has been adopted as Malaysia Financial Accounting Standards (MFRS) since 2011. While, private entities also required to follow MFRS which is IFRS identical since 2015.

Formal process to adopt IFRS in Malaysia is done by public announcement of the issuance of a new or amended MFRS to make the legal status of the standard. It is done to follow MASB Approved Accounting Standards under the Financial Reporting Act 1997 (IASB 2020).

Singapore through Singapore Accounting Standards Council (ASC) has adopted all IFRS issued by IASB effectively starting by 2002. Those standards are applied for all Singapore listed companies and voluntarily followed by non-listed companies. IFRS is adopted as Singapore Financial Reporting Standards (SFRS). Singapore does not translate IFRS to its local language because English is this country’s business language.

Formal process taken by The ASC to endorse IFRS in this country is done by issuing a consultation document for comment to invite public comments for the standard and the comment submitted by the constituents to IASB. IFRS adoption in Singapore is done by considering information needs of stakeholders, whether the standard facilitates comparability, disclosure, and transparency, compatibility with international standards, and Singapore’s reputation as a trusted international business. ASC considers feedback from constituents when developing comments to the IASB (IASB 2020).

Philippines has adopted IFRS as Philippines Financial Reporting Standards (PFRS). Its commitment is to regulate all listed companies in Philippines to follow PFRS as their reporting standards (IASB 2020).

The process of IFRS adoption as PFRS in Philippines involves 4 bodies in this country based on IASB (2020). First of all, IASB issues a proposal such as an exposure draft or discussion paper. Then, Philippines Financial Reporting Standards...
FRSC (FRSC) considers potential implications of the proposal for local financial reporting. FRSC issues an invitation to comment the proposal then submit it to IASB. Then, IASB issues a new or amended IFRS and FRSC adopts it as PFRS. After that, FRSC submit the PFRS to Professional Regulation Commission (PRC) and Board of Accountancy (BOA) for approval. After the bodies approved the standard, they oversee the publication in the Official Gazette. Then, the last step is Securities and Exchange Commission (SEC) adopts the new PFRS as part of financial reporting regulation.

Federation of Accounting Profession of Thailand (FAP) is the accounting organization in Thailand. It has been fully adopted all IFRS issued by IASB with a one-year delay because this country needs much more time to translated IFRS to its own local language. IFRS in Thailand also known as Thailand Financial Reporting Standards (TFRS).

Based on IASB (2020) the convergence process of the IFRS in Thailand is as follows. First, Thailand needs to translate IFRS to Thai and issues it as exposure draft for public hearings. Then, FAP conduct public meeting to obtain comments. After that, Supervisory Accounting board of FAP approves the final standard and FAP approves the standard. Finally, The Oversight Board of FAP endorses the standard and the standard is published in the Government Gazette.

As high-quality accounting standards, IFRS and IAS issued by IASB are adopted by more than 145 countries around the world, including ASEAN countries. Agreeing to implement ASEAN Economics Community in 2015, the demand for the high quality of financial reporting also increases in the ASEAN region (Lin et al. 2017; Fitriany et al. 2017).

Other comprehensive income is regulated in IAS 1 which issued by IASB. IAS 1 is effective after 2008 and the latest revised version of this standard is issued in 2011. In this standard, other comprehensive income is mentioned in the last part and just regulate the components and transactions which should be included in other comprehensive income. It consists of five components, which also being used in this paper, comprises of remeasurement of Available for Sale (AFS) securities, foreign currency translation adjustment, the effective portion of cash flow hedge, revaluation surplus of fixed asset, and remeasurement of post-retirement benefit. Otherwise, the standard does not mention specifically about disclosure indicators which should be followed by the firms to comply to the rule. Because of that, we adopt disclosure indicators from IFRS and IAS which regulate each component of other comprehensive incomes to construct our disclosure index.


IFRS and IAS used to regulate the reporting and disclosing other comprehensive income are adopted by ASEAN countries. In Indonesia, IAS 1 is converged as PSAK 1 (Financial Accounting Standard 1) and Fair Value Measurement is adopted as PSAK 68. In Malaysia, other comprehensive income is regulated in MFRS 101 about the Presentation of Financial Reporting. In Singapore, other comprehensive income is regulated by SFRS 1. In The Philippines, other comprehensive income is regulated by PAS 1. In Thailand, other comprehensive income is regulated by TAS 1. ASEAN countries also only regulate for reported components which should be included in other comprehensive income.
Table 1
Research Sample

<table>
<thead>
<tr>
<th>Panel A: Sample Selection</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Singapore</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning number or sample</td>
<td>43</td>
<td>36</td>
<td>29</td>
<td>26</td>
<td>41</td>
</tr>
<tr>
<td>Firms that financial reports did not find</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Firms have no complete financial reports</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Firms have no other comprehensive income</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Firms published their financial reports not in English</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Firms have no December year end</td>
<td>0</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total sample</td>
<td><strong>38</strong></td>
<td><strong>13</strong></td>
<td><strong>16</strong></td>
<td><strong>21</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Final Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>Bank</td>
</tr>
<tr>
<td>Insurance</td>
</tr>
<tr>
<td>Other financial services</td>
</tr>
<tr>
<td>Per country sample</td>
</tr>
<tr>
<td>Final Sample</td>
</tr>
<tr>
<td>Firms year observations</td>
</tr>
</tbody>
</table>

income following IAS 1. Disclosure of other comprehensive income also follows each accounting standard in each country adopted from IFRS and IAS issued by IASB.

RESEARCH METHOD

Study Period and Sample Selection

Our empirical analysis covers 4-year observations, starting from 2014 until 2017. We use this study period because IFRS 13: Fair Value Measurement as the basis of the changes of fair value that reported in other comprehensive income is revised in July 2013. It suggested that our sample should start from the 2014 fiscal year to cover this revision. During our study, the newest financial reports issued are for the 2017 fiscal year.

Sample of this study consists of financial industries in five ASEAN countries, namely Indonesia, Malaysia, Singapore, Philippines, and Thailand. We use hand-collected data from firms’ financial reports. We check each financial report issued by the firms one by one manually to collect the data, such as the number of other comprehensive income reported by the firms, operating profit, total assets, and total liabilities reported by the firms and check each item to construct our disclosure index of other comprehensive income based on the requirement of IFRS.

We use secondary data through documentation method to obtain our data needed. We retrieved our data from the stock market at the ASEAN five countries, comprises of Indonesian Stock Exchange, Bursa Malaysia, Singapore Stock Exchange, Philippines Stock Exchange, and Thailand Stock Exchange. We use purposive sampling with some specific criteria. First, they are financial firms listed in stock exchange. We use financial firms in ASEAN because this industry fits the characteristics of OCI to provide the best result of the study. Then, they have financial reports for 2014 to 2017. They have at least one component of other comprehensive income, they have year-end on December 31. If firms have OCI from
Table 2
Disclosure Index Criteria

<table>
<thead>
<tr>
<th>No.</th>
<th>Accounting Standards</th>
<th>Other Comprehensive Income Components</th>
<th>Number of Disclosure Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>IFRS 9 and IFRS 7</td>
<td>Remeasurement of securities categorized as Available for Sale (AFS)</td>
<td>16</td>
</tr>
<tr>
<td>2.</td>
<td>IAS 21</td>
<td>Foreign currency translation adjustment</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>IFRS 9 and IFRS 7</td>
<td>The effective portion of cash flow hedge</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>IAS 16</td>
<td>Revaluation surplus of fixed assets</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>IAS 19</td>
<td>Actuarial gain or loss of post-retirement benefit</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Disclosure Indicators</strong></td>
<td></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

Because there is no single set of accounting standard which regulate disclosure indicators for other comprehensive income, so we use four accounting standards to construct disclosure index criteria. We present it in Table 2 below.

We construct our own disclosure index using some procedures which have been widely used by previous studies. First, we measured disclosure for each indicator using a dummy variable; 1 for indicators disclosed by the firms and 0 for indicators which not disclosed by the firms. Then, we calculate the disclosure index by adding all indicators disclosed by the firms. If we find a company does not disclose OCI components because they do not have the components, we treat by giving n/a at this component. We only measure the component that the company has and disclose it at financial statements and notes to financial statements. Thus, we calculate the index depend on each components owned by each firms in the sample. This index is still valid because it reflects the actual condition of each company.

**Empirical Model**

We use an empirical model to examine our hypothesis. Based on Chow Test, Lagrange Multiplier Test, and Hausman Test we have been conducted, all of them show p-value less than 5%. Therefore, we use fixed effect panel data model to test our hypothesis. We present the results test of panel data model selection in Table 4 below. We construct this model based on Ehalaiye et al. (2017); Bandyopadhyay et al. (2017). Our hypothesis is proven if $\beta_1$ and $\beta_2$ in this model are significant.

$$\text{OP}_{it+1,2} = \beta_0 + \beta_1 \text{OCI}_{it} + \beta_2 \text{DISC}_{it} + \beta_3 \text{TA}_{it} + \beta_4 \text{LEV}_{it} + \epsilon_{it}$$

Variable definitions:

- $\text{OP}_{it+1,2}$: Future operating profit. that is for one year and two year ahead.
- $\beta_1 \text{OCI}_{it}$: Comprehensive income reported in the financial report of the firms.
- $\beta_2 \text{DISC}_{it}$: Disclosure level of other comprehensive income in absolute value.
- $\beta_3 \text{TA}_{it}$: Control variable which measured by logarithm natural of total assets.
- $\beta_4 \text{LEV}_{it}$: Leverage, measured by total liabilities divided by total assets.
- $\epsilon_{it}$: Residual of the regression model.

* We use the number in million US dollar and scaled by total assets

Control variables used in this study is based on other study conducted before. Total assets reflect the company’s size. The higher total assets owned by the company, the bigger company’s size. Studies used total assets as control variable are Dhaliwal et al. (1999); Kanagaretnam et al. (2009);
Table 3  
Panel Data Model Selection  

<table>
<thead>
<tr>
<th>Test</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow Test</td>
<td>0,000</td>
</tr>
<tr>
<td>Lagrange Multiplier Test</td>
<td>0,000</td>
</tr>
<tr>
<td>Hausman Test</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Table 4  
Descriptive Statistics  

<table>
<thead>
<tr>
<th>Variables</th>
<th>Panel A: Descriptive Statistics of One Year Ahead Predictive Value</th>
<th>Panel B: Descriptive Statistics of Two Years Ahead Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>St. Dev</td>
</tr>
<tr>
<td>OP</td>
<td>0,17</td>
<td>0,84</td>
</tr>
<tr>
<td>OCI</td>
<td>0,05</td>
<td>0,47</td>
</tr>
<tr>
<td>DISC</td>
<td>9,15</td>
<td>4,42</td>
</tr>
<tr>
<td>TA</td>
<td>21,41</td>
<td>2,46</td>
</tr>
<tr>
<td>LEV</td>
<td>0,73</td>
<td>0,30</td>
</tr>
</tbody>
</table>

Lee and Park (2013). While leverage reflects the risk faced by the company. Studies used leverage as control variable are Badia et al. 2017); Khan dan Bradbury (2014); Lee dan Park (2013); Kanagaratnam et al. (2009); Dhaliwal et al. (1999).

RESULT AND ANALYSIS  

Descriptive Statistics  
Descriptive statistics of all variables used in this study are presented in Table 4. This study employs 330 and 220 observations to examine the predictive value of one year and two years respectively. Panel A Table 4 presents all variables used to predict one year ahead. Panel B Table 4 presents all variables used to predict two years ahead. Mean of OCI increases for one year ahead to two years ahead. It can be a positive or negative value, a positive value means that other comprehensive income is unrealized gain, while a negative value means that other comprehensive income is an unrealized loss. DISC for one year ahead and two years ahead has a minimum value of 2 and a maximum value of 27 indicators. TA and LEV for one-year prediction and two years prediction are not much different.

Main Results  
Predictive Value of Other Comprehensive Income  
Table 5 shows the relationship between current reporting of other comprehensive income, one year, and two years ahead.
Table 5
Main Results

<table>
<thead>
<tr>
<th>Dependent Variable: Future Operating Profit (OP)</th>
<th>Panel A One Year Ahead</th>
<th>Panel B Two Years Ahead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Coefficient</td>
<td>t-value</td>
</tr>
<tr>
<td>OCI</td>
<td>-0.01</td>
<td>-4.34***</td>
</tr>
<tr>
<td>DISC</td>
<td>-0.003</td>
<td>-18.35***</td>
</tr>
<tr>
<td>Ln TA</td>
<td>0.004</td>
<td>3.33***</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.000</td>
<td>-2.15**</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.02</td>
<td>-0.69</td>
</tr>
<tr>
<td>Number of observations</td>
<td>330</td>
<td>220</td>
</tr>
<tr>
<td>R²</td>
<td>0.0494</td>
<td>0.0614</td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

OP = Absolute value of future operating profit of one year and two years ahead in million US dollar and scaled by total assets; OCI = Other comprehensive income in million US dollar and scaled by total assets; DISC = Absolute value of disclosure index; TA = firm size in the natural logarithm of total assets; LEV = leverage, that is total liabilities divided by total assets.

* significant in α 10%; ** significant in α 5%; *** significant in α 1%

This result run in fixed effect panel regression and used generalized least square to fix classic assumption violation.

of future performance from 2014 until 2017. Based on the coefficient of OCI, we found that other comprehensive income has predictive value. Thus, our first hypothesis is supported. It indicates that other comprehensive income is relevant information for investors (IASB 2018; Kieso et al. 2018, 71). This result is consistent with the institutional theory that highlight accounting standards as one of the external factors are institutionalized by management (Zucker 1987; Meyer and Rowan 1978; Rankin et al. 2012). Management comply with IAS 1 (IASB 2011) and IFRS 13 (IASB 2013) in reporting other comprehensive income.

This result is also consistent with Ehalaite et al. (2017); Bandyopadhyay et al. (2017); Jones and Smith (2011); Evans et al. (2010); Aboody et al. (1999). This result also proves that predictive value is not only for the fair value of assets and liabilities but also for other comprehensive income which use to report changes of fair value. This result also strengthens other comprehensive income as relevant information (Veltri and Ferraro 2018; Khan and Bradbury 2014; Lee and Park 2013; Jones and Smith 2011; Kanagaretnam et al. 2009).

Predictive Value of Disclosure of Other Comprehensive Income

Based on the coefficient of DISC, we found that disclosure of other comprehensive income has predictive value. Thus, our second hypothesis is supported. It is indicating that disclosure of other comprehensive income is relevant information (IASB 2018; Kieso et al. 2018).

This result is consistent with the institutional theory that highlight accounting standards as one of the external factors are institutionalized by management (Zucker 1987; Meyer and Rowan 1978; Rankin et al. 2012). Management comply with accounting standards to disclose each other comprehensive income component, namely IAS 1 (IASB 2011); IFRS 13 (IASB 2013); IFRS 9 (IASB 2013); IFRS 7 (IASB 2012); IAS 19 (IASB 2011); IAS 16 (IASB 2013); IAS 24 (IASB 2013) in reporting other comprehensive income.

Additional Analysis

Interaction between OCI and DISC

We conducted additional analysis by providing evidence of how interaction between OCI and DISC affect the predictive value of future performance. The result showed that interaction between these two
Table 6
Additional Analysis – Interaction between OCI and DISC

<table>
<thead>
<tr>
<th>Variables</th>
<th>Panel A</th>
<th></th>
<th>Panel B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One Year Ahead</td>
<td>Two Years Ahead</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td>t-value</td>
<td>Coefficient</td>
<td>t-value</td>
</tr>
<tr>
<td>OCI</td>
<td>-0,01</td>
<td>-4,13***</td>
<td>-0,016</td>
<td>-37,18***</td>
</tr>
<tr>
<td>DISC</td>
<td>-0,003</td>
<td>-15,9***</td>
<td>-0,004</td>
<td>-5,59***</td>
</tr>
<tr>
<td>OCI*DISC</td>
<td>0,000</td>
<td>-2,85***</td>
<td>-0,000</td>
<td>-0,23</td>
</tr>
<tr>
<td>Ln TA</td>
<td>0,005</td>
<td>3,33***</td>
<td>0,006</td>
<td>9,72***</td>
</tr>
<tr>
<td>LEV</td>
<td>-0,000</td>
<td>-2,11***</td>
<td>-0,000</td>
<td>-1,03</td>
</tr>
<tr>
<td>Constant</td>
<td>-0,039</td>
<td>-0,97</td>
<td>-0,04</td>
<td>-4,98***</td>
</tr>
</tbody>
</table>

Number of observations: 330, 220
R²: 0,0518, 0,0614
Prob>F: 0,000***, 0,000***

OP = Absolute value of future operating profit of one year and two years ahead in million US dollar and scaled by total assets; OCI = Other comprehensive income in million US dollar and scaled by total assets; DISC = absolute value of disclosure index; OCI*DISC= Interaction of OCI and DISC; TA = firm size in the natural logarithm of total assets; LEV = leverage, that is total liabilities divided by total assets.
* significant in α 10%; **significant in α 5%; *** significant in α 1%
This result run in fixed effect panel regression and used generalized least square to fix classic assumption violation.

variables has only one year predictive value. It suggested that firms which disclose information about other comprehensive income in their annual reports might be able to increase the predictability of future performance. Otherwise, the predictive value is not affected by the presence of disclosure of other comprehensive income for the second period of prediction. We reported the result in Table 6.

**Fair Value Hierarchy**

Additional analysis is done by breaking down other comprehensive income based on its fair value hierarchy. Remeasurement of Available for Sale (AFS) belongs to fair value level 1, foreign currency translation adjustment and the effective portion of cash flow hedge belong to fair value level 2, and revaluation surplus of fixed asset and remeasurement of post-retirement benefit belong to fair value level 3.

Based on additional analysis of fair value hierarchy presented in Table 7, other comprehensive income components belong to fair value level 1 and 2 have predictive value for one year and two years ahead. This is due to input used in fair value level 1 and 2 are available in market. Therefore, this information has high objectivity. It support the relevance of other comprehensive income components (IASB 2013).

Otherwise, other comprehensive income components belong to fair value level 3 only have predictive value for one year ahead. The reasonable explanation is unobservable input usage to determine fair value level 3 which increases subjectivity of accounting information because of management judgement. In addition, other comprehensive income which belong to fair value level 3 are components not be reclassified to profit and loss in the next year. Therefore, unrealized gain and loss will not be transferred to profit and loss statement. This result supports Lin et al. (2017) which found that fair value level 3 caused firms to restate their financial report in the next year. It indicates that fair value level 3 is low quality input (Lin et al. 2017). Because we include each components into fair value hierarchy, we tested every components based on their fair value hierarchy to reflect their ability in predicting future performance.
### Table 7
Additional Analysis – Fair Value Hierarchy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Observations</th>
<th>FV1</th>
<th>FV2</th>
<th>FV3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>One Year Ahead</td>
<td>Two Years Ahead</td>
<td>One Year Ahead</td>
</tr>
<tr>
<td>FV1</td>
<td>295</td>
<td>4.61</td>
<td>3.14</td>
<td>0.99</td>
</tr>
<tr>
<td>FV2</td>
<td>188</td>
<td>0.99</td>
<td>19.59***</td>
<td>6.36</td>
</tr>
<tr>
<td>FV3</td>
<td>212</td>
<td>-2.07</td>
<td>-6.64</td>
<td>-7.46</td>
</tr>
<tr>
<td>DISC</td>
<td>104</td>
<td>2.74</td>
<td>2.60***</td>
<td>210.91</td>
</tr>
<tr>
<td>LEV</td>
<td>270</td>
<td>142.99</td>
<td>1.81**</td>
<td>1150.09</td>
</tr>
<tr>
<td>Constant</td>
<td>159</td>
<td>-21.86</td>
<td>-0.26</td>
<td>225.63</td>
</tr>
</tbody>
</table>

**FV1** = Other comprehensive income component which belongs to fair value level 1, which is remeasurement of Available for Sale securities in US million dollar; **FV2** = Other comprehensive income components which belong to fair value level 2, which is foreign currency translation adjustment and the effective portion of cash flow hedge in US million dollar; **FV3** = Other comprehensive income components which belong to fair value level 3, which is revaluation surplus of fixed asset and remeasurement of post-retirement benefit in US million dollar; **LEV** = Firm’s leverage which measured by total liabilities divided by total assets; **NOTE:** * significant at α = 10%; ** significant at α = 5%; *** significant at α = 1%
Discussion and Implications

Based on the result, we documented that reporting of other comprehensive income is able to predict future performance. We can describe that for firms which have comprehensive income and decided to report and disclose it, it will be negative news for investors because it could be used to predict the future operating performance of the firms. Firms which report their other comprehensive income at this period, they will have negative prediction through lower performance in the future. Investors pay attention to this information because of other comprehensive income in non-managerial performance which shows us about how market condition affect firm's performance as a whole. It is important to describe the firm's ability to produce future performance (Rahayu 2019). Two possible explanations are firms only disclose information for formality (Michelon and Bozzolan 2015; Cheung et al. 2010) and other comprehensive income contains risk relevance as its main nature as transitory components (Khan and Bradbury 2014).

Furthermore, additional analysis provides information that those which belong to fair value level 1 and 2 have predictive value. This is due to the input used in fair value level 1 and 2 are available in the market. So, this information has high objectivity. It reveals that those other comprehensive income components are relevant information (IASB 2013). While, fair value level 3 only has one year predictive value because it is measured using unobservable input. It increases the subjectivity of accounting information because of management judgement. In addition, other comprehensive income which belongs to fair value level 3 are components which not be reclassified to profit and loss in the next year. Therefore, unrealized gain and loss will not be integrated to profit and loss statement. This result supports Lin et al. (2017) who found that fair value level 3 caused firms restate their financial report in next year. It indicates that fair value level 3 is low quality input.

Other comprehensive income comprises unrealized gain and loss of remeasurement of assets and liabilities owned by firms which could affect future performance when its realized. The unrealized gain will produce higher operational performance when it is realized at profit or loss statement eventually in the future. The unrealized loss will be realized as a loss when asset or liabilities is sold or settled. The unrealized loss will alleviate future performance by reporting as a loss at profit or loss statement in the future. Therefore, other comprehensive income is important for investors to predict future performance and be an input for an investor to decide their accounting decision-making process to invest their fund into the firms.

Moreover, disclosure of other comprehensive income provides two years prediction of future performance. It means that firms disclosing their information related to other comprehensive income, will be able to predict one year and two years ahead firms’ performance.

Other comprehensive income which comprises unrealized gain or loss tend to make higher risk at the future because they are transitory components. The nature of other comprehensive income produce higher risk relevance that can be worsen firms’s future performance by reveal uncertain risk by disclosing it at financial statements or notes to financial statements. Investors would pay greater attention to the components of other comprehensive income when it contains much more unrealized loss than unrealized gain. Data from the sample also showed that there more firms having unrealized loss than unrealized gain. They have to be ready for suffering of any losses if they are realized at the future. It would worsen firms’ future performance.

Overall, findings of this study have implications for standard setter and investors. It will be one of post implementation review studies on other
comprehensive income and fair value accounting. For investors, this study reveals other comprehensive income and its disclosure as relevant information.

Fair value hierarchy produces different level of objectivity which leads to a different level of predictive value. Fair value input which available at the market can predict longer than input which based on input unavailable at the market. It affects the level of quality produced by each accounting information.

**CONCLUSION**

Based on our analysis above, we conclude that other comprehensive income and its disclosure have predictive value. It indicates that other comprehensive income and its disclosure are relevant information.

Additional analysis showed that other comprehensive income interacted with its disclosure have only one year period. In addition, other comprehensive components belong to fair value level 1 and 2 have predictive value because it uses market based input. Other comprehensive income components which belong to fair value level 3 only have predictive value for one year ahead because it uses unobservable input which raise subjectivity because of management judgement.

This results confirm that not only fair value which has predictive value, but also the changes of fair value which reported in other comprehensive income. Results also proved capital maintenance concept does exist in reporting and disclosing other comprehensive income which have predictive value.

This paper has several limitations. First, this study only use four years sample period due to data availability. Then, it also has essential limitation which rise from fair value measurement which uses exit price measure. Both IASB and FASB use the term of exit price in describing fair value which use estimation. It only measure the price which the seller or buyer agree to sell their assets or liabilities.

Thus, fair value measurement used as if firms have sold their assets or liabilities which would affect future performance prediction, instead of measure their assets or liabilities on hand. It will decrease the degree of relevance and representation faithfulness of this measurement. As we know, IASB is promoting larger using of fair value based on many IFRS have been issued to date. We expect standard setter to apply more attention on it to make sure that the standards are followed well by the firms to produce high quality accounting information.

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