JUDGMENTS ON FIRM VALUATION IN JAPAN

Mineo Tsuji, Osaka Prefecture University
Kyoko Fukunaga, Osaka Prefecture University

ABSTRACT

The objective of this paper is to show how judgments are made in a more market-oriented environment of Japan. The article 116 of the Companies Act says that in the case listed in the certain items, dissenting stockholders may demand that the Stock Company purchase, at a fair price, the stocks prescribed in such items held by such stockholders. In order to determine the price, Japanese courts have adopted the market approach except a few cases.

In 2012, considering the synergy effect, a district court took to this problem the discounted free cash flow model, one method of the income approach. The adoption of the income approach, the residual income model in particular, would make it possible to judge fairly the value inherent in the firm. As, in Japan as well as in the United States, accounting studies have obtained more effective evidences for the income approach, particularly the residual income model, so the court should more often apply such a method in the decision about a fair price.

Keywords*:* IFRS, Financial Times, Market-Oriented Environment.

INTRODUCTION

Of the two possible managerial monitoring systems, Japan has generally adopted the '*inside*' system, in which boards of directors principally monitor firms from a long-term perspective, whereas in the US and the UK, the 'outside' system prevails, where the control of firms is via the capital market, particularly through Mergers and Acquisitions (M&A) (Yoshimori, 1996). In addition, the structure of Japanese boards of directors and the process of governance are strikingly different from those in Western developed economies. In part, this derives from the belief in Japan that firms did not see the need for intervention from outside the firm (Tricker, 1994).

As successive collapses and scandals have engulfed its financial system, so Japan seems to have taken the lesson offered by the "*Financial Times"* to heart that better accountancy, tougher auditing standards and improved corporate governance were an urgent priority for a more market-oriented environment (November 26, 1997). Japan's existing system of "*wonderland accounting"* the "*Financial Times"* named has now been harmonized under the Act for Reforming the Acts Concerning the Financial System Reform in 1998 (Act No. 107 of June 15, 1998) and has been converged under the Agreement to Accelerate Convergence between Japanese GAAP and International Financial Reporting Standards (IFRS) in 2007 (known as the Tokyo Agreement, ASBJ, 2007At present, although Japanese accounting rules do not require firms to follow IFRS, firms in Japan are unable to transfer profits and losses from one to another in managing a series of portfolios or to carry an unrealized loss at cost by setting up a fund (cf. Kuroda, 2001; Nobes & Parker, 2012).

According to "*MARR"* (2012), both the number and volume (deal value) of M&A relating to Japanese firms (excepting intergroup M&A) increased rapidly in 1999. In fact, the increase in the volume of M&A activity in Japan between 1999 and 2011 is about five times larger than that between 1988 and 1998. Moreover, since the first half of the 2000s, the number of M&A cases where Japanese firms merged with or acquired other Japanese firms, and where Japanese firms merged with or acquired foreign firms, some through investment partnerships and funds, now exceeds that of instances where foreign firms have merged with or acquired Japanese firms. On December 16, 2012, the Nikkei also reported that in 2012, Japan would account for the world's largest number of M&A where domestic firms merged with or acquired foreign firms, and that second only to the US, Japan would represent the largest volume of global M&A activity. As demonstrated by the content of "*MARR"* (2012), Japan's leading M&A journal, Takeover Bids (TOBs), Management Buyouts (MBOs) and firm defenses against hostile TOBs are hardly unexceptional for many Japanese firms now. The number of takeover bids mounted from 2006 to 2011 was more than double that from 2000 to 2005, with a volume more than three times larger. The number and volume of MBOs from 2006 to 2011 was also about double that from 2000 to 2005. Commensurately, the number of Japanese firms preparing defenses against a hostile takeover bid has also steadily increased, from zero in 2004 to 29 in 2005, 175 in 2006, 409 in 2007 and 569 in 2008 (cf. Takei, 2006), although this had fallen to 523 firms by 2011 when 103 firms abandoned their takeover defenses.

In Japan, the Companies Act No. 86 from July 26, 2005 provides the appraisal remedy for dissenting stockholders and the dissenting holders of stock options. Under this act, cases concerning the determination of the price related to the appraisal remedy of the dissenting stockholders and dissenting holders of stock options have steadily increased in number (cf. Yanaga, 2012a). Considering the advancement of accounting research, we wonder whether such court decisions substantially reflect economic decisions in business practice. The following section surveys prior studies on firm value in the field of accounting.

LITERATURE REVIEW

At least since the American Accounting Association (AAA) published "*A Statement of Basic Accounting Theory"* in 1966 (AAA, 1966), the objective of financial accounting has been user oriented and has expected financial reporting information to be useful for economic decisions. It has done this through the ongoing adoption of the conceptual accounting frameworks provided by the International Accounting Standards Board (IASB) as well as by accounting bodies in the US. As a result, a number of researchers have attempted to establish empirically the usefulness of accounting information in conjunction with the traditionally normative approach to alternative accounting treatments.

In the 1970s, Fama (1970) and others first identified the weak and semistrong forms of efficient capital markets. By the 1980s, the efficient market hypothesis together with portfolio theory and the Capital Asset Pricing Model (CAPM) had been applied to practical securities investment, and it was in relation to securities markets that Ball and Brown (1968) and Beaver (1968) initially tested the usefulness of financial accounting information. Ou & Penman (1989a), for instance, provided evidence supporting a "*small revolution"* in accounting thought on this matter, and they suggested the need to re-examine the significance of financial reporting. This rested on Ou & Penman's (1989a:1989b) contention that accounting information partly leads stock prices. That is, stock prices do not indicate the value of firms; rather, stock prices approach the value of firms but with some delay. Financial reporting is then useful to assess the value of firms in this process.

Later, Ohlson (1995) extensively discussed the Residual Income Model (RIM), and Feltham & Ohlson (1995) provided a framework consistent with the measurement approach by showing how we can express the market value of the firm in terms of its fundamental balance sheet and income statement components. Of course, this theory relies upon ideal conditions in capital markets, including dividend irrelevancy. More recently, Penman (1998) established the theoretical equivalence of the Dividend Discount Model (DDM), the discounted cash flow model (DCFM) and the RIM.

Empirically, Penman & Sougiannis (1998) contrasted DDM, DCFM and RIM based on accrual earnings when each was applied with finite-horizon forecasts using data on 3,544 firms in 1973 to 5,642 firms in 1987 with an average of 4,192 per year listed on the New York Stock Exchange (NYSE), the American Stock Exchange (ASX) and the National Association of Securities Dealers Automated Quotations (NASDAQ). Francis et al. (2000) likewise compared the reliability of value estimates from the DDM, DCFM and RIM but using a sample of five-year forecasts for nearly 3,000 firm-year observations over the period 1989 to 1993. Both studies concluded that the RIM offered a number of practical advantages over both the DDM and the DCFM.

Finally, Courteau et al. (2001) used a sample of 422 firms over the five-year period from 1992 to 1996 (representing 2,110 firm-years) and showed that these findings did not necessarily hold when using the theoretically ideal terminal value for each model. Where ideal terminal values were not available, Courteau et al. (2001) suggested that the RIM would outperform the DCFM.

ACCOUNTING STUDIES ON FIRM VALUE MODELS IN JAPAN

Drawing on prior work in this area, particularly from the US, accounting researchers in Japan have undertaken studies into firm value in relation to Japanese securities markets. Using a sample of 317 firms listed on the First Section of the Tokyo Stock Exchange (TSE) during the period 1983-98, Fujii & Yamamoto (1999) empirically compared Ohlson's (1995) model and the DCFM. They found that the predictor variable for the fundamental value of the stock from the Ohlson model had a higher coefficient of determination than that from the DCFM. On this basis, Fujii & Yamamoto (1999) concluded that the Ohlson model more effectively explained stock prices than the DCFM, at least in Japan.

After estimating the fundamental value of stock using the DCFM and the discounted RIM (that is, the Ohlson model), Takehara & Suda (2004) followed Bernard (1995), Penman & Sougiannis (1998), and Francis et al. (2000) and compared their relative forecasting performance by dividing these values by the actual market price, obtaining the so-called Value-to-Price Ratio (VPR). Takehara & Suda (2004) then observed the time-series behavior of VPR using 12,943 firms listed on the First Section of the TSE from 1980 to 2000. Observing that the tail of the RIM-VPR distribution was thinner than that of the comparable DCFM-VPR distribution and that the time-series behavior of the RIM-VPR was more stable, Takehara & Suda (2004) concluded that firm values as estimated by the RIM were more relevant to stock prices than those estimated by the DCFM.

Later et al. (2006) undertook a comparative analysis of the accuracy or valuation error, explanatory power, and investment performance of the RIM, the DCFM, and the Economic Value-Added Model (EVAM) using a sample of 13,110 firms for the RIM and 12,526 firms for the DCFM and the EVAM listed on the TSE between 1995 and 2004. They found that the stock price estimated using the RIM had the smallest valuation error of the three alternative models, although this made little difference in relation to the explanatory power of the stock price. On this basis, Nishio & Nakano (2006) concluded that a useful strategy for investing in Japanese firms using firm value models could result from using accounting information.

The Special Committee of the Japan Accounting Association (2008) investigated various issues in evaluating firm value based on accounting information. After extensively reviewing the extant literature, the committee empirically investigated a number of research questions about accounting-based firm valuation and obtained the following results. First, accounting-based firm valuations were useful because stock markets were not always completely efficient. Second, the RIM posed a number of advantages over other models, such as the DCFM, and net income was generally preferable to comprehensive income as an input in the RIM. Finally, in estimating firm value based on the RIM, investors needed to predict future performance, accounting earnings and dividends, and the cost of capital.

Apart from these empirical studies, the Japanese Institute of Certified Public Accountants (JICPA, 2007:2010) has published guidelines for calculating firm value and has conducted an analysis of existing cases. The guidelines classify the existing approaches to firm valuation into three groups: the market approach, the net asset approach, and the income approach. As shown in Table 1, each approach is further characterized across the following four items: i) whether the approach was objective, ii) its reflection of the stock trading condition in the market, iii) its reflection of the ability to produce revenues in the future, and iv) its reflection of the proper nature of the firm.

According to the guidelines (JICPA, 2007:IV2), the income approach is a valuation method where the value of the object firm is estimated based on its earnings and/or the cash flows it is expected to generate. The income approach reflects the ability to produce revenues in the future or revenues expected in the future based on the value of the firm, and thus we can easily assess the proper value of the object firm through measurement of firm value based on individual profitability, etc. However, regardless of the characteristics of the approach and after considering the purpose of the valuation, the condition of the object firm, and any other condition, we would normally choose from these approaches or methods.

Following the analysis of cases concerning firm valuation, it is common to find that the managerial process of negotiations with stockholders creates profound distrust of management between stockholders because of the presence of conflicts of interest, asymmetric information, and inadequate consideration for general stockholders (JICPA, 2010:VI1).

Table 1
COMMON CHARACTERISTICS OF VALUATION APPROACHES

Approach name	Market	Net asset	Income
Method name	DCF Adjusted present value RIM Others	Market stock price Comparable listed company Comparable trading Sales comparison	Book value Fair value
i) Objectiveness	Utmost good	Utmost good	Little good in case
ii) Stock trading	Utmost good	Little good in case	Moderate good
iii) Revenues	Moderate good	Little good in case	Utmost good
iv) Nature	Little good in case	Moderate good	Utmost good

Source: JICPA, 2007:IV2.

APPRAISAL REMEDY FOR DISSENTING STOCKHOLDERS

The Companies Act in Japan provides the appraisal remedy for dissenting stockholders and dissenting holders of stock options, representing the right to redeem capital invested, which was originally incorporated into Japanese law with reference to some US state law in 1950 (Egashira, 2006). According to the Companies Act, dissenting stockholders and the dissenting holders of stock options may demand that the stock company purchase their stock at a fair price. Table 2 provides the cases for dissenting stockholder purchase demands as given under the Companies Act.

Before the Companies Act, the Commercial Code (Act No. 48, 1890) stated that dissenting stockholders could demand that the stock company purchase those stocks prescribed in such items held by stockholders at a fair price, had it not been for the passage of the vote for an act in the general meeting of stockholders (Article 355 (1), etc.). As for the amendment, Professor Egashira, one of the draftsmen of the Companies Act, explained that 'a fair price' under the Companies Act was the same as 'a fair price which should have been determined if it had not been for the passage of the vote for an act' under the Commercial Code (Egashira, 2006).

In considering the judgment, if a stock has a price in a securities market, "*a fair price"* was, in principle, calculated at an average of its closing market prices during the last few months. Strictly speaking, to determine "*a fair price*", market prices before the announcement of the action should be corrected with the application of statistical methods considering the price changes of all stocks in the market, not just the stock, because after the announcement, it is probable that market participants presume the act to take place (Egashira, 2006).

Where such an action would produce synergistic effects, "*a fair price*" may differ from that under the Commercial Code. This will particularly result where application of the calculation process will result in exclusive enjoyment of the effects by the majority interests and will legally compel the minority interests to demand that the company purchase the stocks (Egashira, 2006). In other words, in relation to the amendment of "*a fair price*", Professor Kanda, also one of the draftsmen of the Companies Act, argued that the amendment enabled the concept of "*a fair price"* to include synergy effects produced by a variety of acts, such as M&A (Kanda, 2006).

According to Kanda (2012), the appraisal remedy for dissenting stockholders does not always grant the right to redeem the capital invested but does carry out the following two objectives. First, in admitting a corporate reorganization act because of a capital majority decision, dissenting stockholders should be given the opportunity to exit from the securities market, where their interests will be reflected in the ratio of the exit price to the fair price. Second, when the dissenting stockholders suffered from a corporate reorganization act in breach of the duty of care because of a capital majority decision, they should, to some extent, receive indemnity for their losses.

Therefore, the case of synergy effects is significant in distinguishing between the fair price under the Companies Act and that under the Commercial Code (Kanda, 2012). First, the concept of the dissenting stockholders' losses differs between the two cases. In the synergy case, the unfair distribution of synergy effects among stockholders, i.e., the merger ratio, causes losses in the wasted value of stocks held by the dissenting stockholders. Second, in addition to this and to some extent, the court often has to depend on advocate proof, at least in the case of synergy effects, so it is much more difficult in practice to determine the dissenting stockholders' losses in value. Moreover, to decide upon the fair distribution of synergy effects among stockholders, a court must recreate the corporate reorganization act under ideal conditions.

Table 2
APPRAISAL REMEDY OF DISSENTING STOCKHOLDERS UNDRE COMPANIES ACT

Article No.	Cases of dissenting stockholders' stock purchase demand	Object of purchase	Price of purchase
116 (1) (i)	Where it is intended to effect a amendment to the articles of incorporation to create a provision on matters listed in Article 107 (1) (i) 'the acquisition of such stocks by assignment' as a feature of all stocks issued by a Stock Company.	All stocks	Fair price
116 (1) (ii)	Where it is intended to effect a amendment to the articles of incorporation to create a provision on matters listed in Article 108 (1) (iv) 'the acquisition of such class stocks by assignment' or (vii) 'the acquisition of all of such class stocks by resolution of the stockholders meeting' as the feature of a certain class of stocks.	The stocks prescribed in each item of Article 111(2) 'Class Stocks'	Fair price
116 (1) (iii)	Where any act listed below is to be performed, if any detriment is likely to be suffered by Class Stockholders who hold a certain class of stocks.	The stocks of such class	Fair price
469 (1)	Where Assignment of Business is to be effected.	The stocks held by such stockholders	Fair price
785 (1)	Of effecting an Absorption-type Merger, etc., dissenting stockholders may demand that the Absorbed Stock Company, etc. purchase.	The stocks held by such stockholders	Fair price
797 (1)	In cases of effecting an Absorption-type Merger, etc., dissenting stockholders may demand that the Surviving Stock Company, etc. purchase.	The stocks held by such stockholders.	Fair price
806 (1)	In cases of effecting a Consolidation-type Merger, etc. (excluding the following cases), dissenting stockholders may demand that the Consolidated Stock Company, etc. purchase.	The stocks held by such stockholders	Fair price

JUDGMENTAL APPROACHES TO FRIA PRICE

This section surveys the following five cases: REX Holdings, Inc., Sunstar Inc., CYBIRD Holdings Co., Ltd., Kanebo Ltd., and Culture Convenience Club Co., Ltd. With the exception of "*Kanebo Ltd.,*" these four cases were in relation to MBOs and under Article 172 (1) of the Companies Act concerning a petition to court for the determination of price. According to Article 172 (1), "*in cases where the matters listed in each item of paragraph (1) of the preceding article are prescribed, the following stockholders may file a petition to the court, within twenty days from the day of the stockholders meeting under that paragraph, for a determination of the price of the Class Stocks subject to Wholly Call for the acquisition by the Stock Company*."

In contrast, the Kanebo Ltd. case was in relation to a business transfer to reorganize under Article 12-3 (3) of the Law on Special Measures for Industrial Revitalization (Act No. 131 of August 13, 1999) and Article 245-5 (3) (4) of the Commercial Code. Article 245-5 (3) of the Commercial Code stated that dissenting stockholders may demand that the stock company purchase stocks prescribed in such items held by such stockholders at a fair price that should have been determined if it had not been for the contract for such business transfer. We group the other cases into two categories in accordance with the approach adopted by the court (Yanaga, 2012b). As shown in Table 3, to decide upon "*a fair price*", the court applied the market approach in the first three cases and the income approach in the last two cases. The court did not apply the net asset approach in any case. In what follows, we study the cases of REX Holdings, Inc. and Culture Convenience Club Co., Ltd. in detail. The case of REX Holdings, Inc. was the first in a Japanese court to decide upon ‘a fair price’ as a consideration of a bid (Kato, 2009). The takeover bid included an offer of 230,000 yen per share. According to the managerial explanation, the price reflected the average market closing price in the month before the release of the information to the takeover bid and a risk premium of 13.9%. However, management reduced the original forecast financial results once before the bid and twice after the bid. Even so, the actual financial results were much less than the forecasts. With the correction of the forecasts, the market price decreased.

Table 3
FRIA PRICE APPROACHES ADOPTED BY THE COURT

Approach Case	Market	Net asset	Income
REX Holdings, Inc.			
Tokyo District Court, Dec/19/2007	Market price method (and expectation)	-	-
Tokyo High Court, Sep/12/2008	Market price method and expectation	-	-
Supreme Court, May/29/2009	(Dismisal)	-	-
Sunstar Inc.			
Osaka District Court, Sep/11/2008	Market price method	-	-
Osaka High Court, Sep/01/2009	Market price method and risk premium	-	-
Supreme Court, Feb/02/2010	(Dismisal)	-	-
CYBIRD Holdings Co., Ltd.			
Tokyo District Court, Sep/18/2009	Market price method and premium	-	-
Tokyo High Court, Oct/27/2010	Market price method and premium	-	-
Kanebo Ltd.			
Tokyo District Court, Mar/14/2008	-	-	DCF method
Tokyo High Court, May/24/2010	-	-	DCF method
Culture Convenience Club Co., Ltd.			
Osaka District Court, April/13/2012	-	-	DCF method

The Tokyo District Court (December 19, 2007) considered the fair price as consisting of objective prices at the date of purchase and the amount of value of the expectation right to higher price that such stockholders could no longer enjoy because of compulsory purchasing (cf. Kitagawa, 2010). The court concluded that because the market definitely rationally recognized the takeover bid price and the premium, the stock price of 230,000 yen was therefore fair. However, considering the relative probability of the MBO and certain accounting manipulation, the Tokyo High Court (September 12, 2008) argued that the forecast corrections entailed a large probability of exerting a greater negative impact on the market than they would in reality. As a result, in including the prices before the bid release, the objective stock value was determined as 280,805 yen per share, and this reflected the average of the closing prices in the market during the six months before the bid announcement.

In addition, considering the purpose of the Act, the Tokyo High Court thought it desirable that such expectation values should be decided with rationally discretionary powers of the court following analysis of the profitability and forecasts in reference to the business schedule and upon examination of the values that would prevail whether the MBO would have been offered or not. The court referred to the average premium of 27.05% obtained from 85 sample cases of 119 takeover bids relating to Japanese firms from 2000 to 2005. After considering that the party did not demonstrate any concrete evidence for this premium and exhibited no business plan or survey report on stock price computation, the court decided upon an expectation premium of 20 percent on the objective stock value.

The cases of Sunstar Inc. and CYBIRD Holdings Co., Ltd. in Table 4 exemplify cases of a fair price obtained through the market approach in the court. In the case of Sunstar Inc., the Osaka High Court (September 1, 2009) referred to the market price method as one that enabled the fair estimate of firm value. Consequently, there was no need to adopt or consider other methods. Instead, the court regarded the DCFM as inappropriate for the determination of a fair price as it included no definite criteria for consideration of the small risk premium, and for the ratio of risk premium and permanent growth rate in the judgment of the firm value, and because the consideration of the DCFM would make firm value vary considerably.

Table 4
A FRIA PRICE THROUGH MARKET APPROACH

Item Case	TOB price	Fair price	Objective price	Premium
REX Holdings, Inc.				
Tokyo District Court Dec/19/2007	230,000 yen	230,000 yen	Average of the closing prices in the market during the late month before the bid release	13.9%
Tokyo High Court Sep/12/2008	230,000 yen	336,966 yen	Average of the closing prices in the market during the six months before the bid release	20.0%
Supreme Court May/29/2009	(Dismisal)	-	-	-
Sunstar Inc.				
Osaka District Court Sep/11/2008	650 yen	650 yen	Average of the closing prices in the market during the late six months before the bid release	About 19.0%
Osaka High Court Sep/01/2009	650 yen	840 yen	Price of the day prior to the bid release	20.0%
Supreme Court Feb/02/2010	(Dismisal)	-	-	-
CYBIRD Holdings Co., Ltd.				
Tokyo District Court Sep/18/2009	60,000 yen	60,000 yen	Weighted average of the closing prices in the market during the late month before the bid release	17.3%
Tokyo High Court Oct/27/2010	60,000 yen	60,000 yen	Weighted average of the closing prices in the market during the late month before the bid release	20.0%

In the case of Culture Convenience Club Co., Ltd., the Osaka District Court (April 13, 2012) decided "*a fair price*" that would consider the firm's value as boosted by the squeeze-out in the MBO process (Yanaga, 2012a) and discussed the impact of the DCFM's results on "*a fair price*" (Toichi, 2012). A company, wholly owned by the CEO and, at the same time, the largest stockholder of Culture Convenience Club Co., Ltd., released information about the takeover bid and priced the stock at 600 yen per share. To restrain accusations of a conflict of interests and to secure the fairness of the released price, the takeover bid required the application of the majority to the minority, and an independent committee was established.

While the CEO thought that the latest prices in the market, to some extent, rationalized the bid price and that nobody could suggest that this was unfair, inappropriate, or unreasonable, the three third parties asked to determine the firm's value arrived at another conclusion. One party computed the lower limit of the value range at 666 yen as the result of the DCF method. Another assessed the lower limit of the value range at 779 yen also using the DCF method. In either event, the released price of 600 yen was far below the fair price decided upon by the third parties.

The Osaka District Court (April 13, 2012) decided "*a fair price if it had not been for*" (the MBO) under the Commercial Code of 469 yen, referring to the average of the closing prices in the market during the month before the bid release. The court also considered the fact that the released price was far below the agreed upon price of the third parties as a matter causing some doubt about whether the released price was less than "*a fair price if it had not been for*" and the price considering distributable value-added. Of 66 published cases relating to MBOs from January 2010 to September 2011, the case of Culture Convenience Club Co., Ltd. was the only one where the released price fell below the price obtained from the DCF method. Therefore, it remained to be seen whether the released price was even lower than the sum of 'a fair price if it had not been for' and the price considering distributable value-added.

According to the court, because the DCFM made it possible to calculate firm value reflecting the ability to produce revenues in the future, its result should be a significant and rational method of reference to estimate the expected increase in value because of the MBO, which should then be equally distributed between the buyer and the dissenting stockholders. The range of the third party thought to be the most neutral was 666 yen up to 994 yen per share, and so the court decided upon a fair price of 830 yen, which lay toward the middle of this range. In the end, the court arrived upon a figure of 361 yen per share in deciding the value expected to be increased because of the MBO.

SUMMARY AND CONCLUSION

Recently, both the number and the volume of M&A and takeover bids have substantially increased in Japan's securities markets. Article 116 of the Companies Act provides that in cases listed in certain items, dissenting stockholders may demand that the stock company purchase, at a fair price, stocks prescribed in such items held by such stockholders. To determine the price, and with few exceptions, Japanese courts have adopted the market approach.

Problematically, past accounting studies have obtained greater evidence supporting the use of the income approach to calculating firm value in Japan as well as in the US. In 2012, the Osaka District Court first decided "*a fair price if it had not been for*" under the Commercial Code and then determined the value expected to be increased because of the MBO. According to the court, because the DCFM would (based on the future business schedule and revenue forecasts) make it possible to calculate firm value reflecting the ability to produce future revenues, the DCFM should be regarded as a significant and rational method of reference to estimate the value expected to be increased as the result of the MBO.

Furthermore, we suggested that the courts should choose the RIM. The adoption of the RIM, one method entailed under the income approach, could make it possible to judge fairly the value inherent in the firm. However, we note that in the application of income models, such as the RIM and DCFM, the business schedule is so significant in its impact upon basic materials that it will be included in the calculation of the expected value of operating free cash flow. Certainly, Japan is now a more market-oriented business environment after a number of successive collapses and scandals have engulfed its financial system, but it is also a fact that under the headline of "*The old boys run Japanese business: Good luck changing it*", "*the Financial Times*" (Boxwell, 2011) has reported the Olympus scandal of 2011, suggesting that little has changed.

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REFERENCES

Accountancy (1997). Global standards chief slates Japanese rules.

Accounting Standards Board of Japan (ASBJ) & International Accounting Standards Board (2007). An agreement to accelerate convergence between Japanese GAAP and International Financial Reporting Standards.

Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, *6*(2), 159-178.

Beaver, W. (1968). The information contents of annual earnings announcements. *Journal of Accounting Research*, 6, 67-92.

Bernard, V. (1995). The Feltham-Ohlson framework: Implication for empiricists. *Contemporary Accounting Research*, *11*(2), 733-747.

Boxwell, R. (2011). The old boys run Japanese business: Good luck changing it. *Financial Times*.

Courteau, L., Kao, J., & Richardson, G. (2001). Equity valuation employing the ideal versus ad hoc terminal value expressions. *Contemporary Accounting Research*, *18*(4), 625-661.

Culture Convenience Club Co., Ltd. Osaka District Court (2012). 25481057 of LEX/DB Internet.

CYBIRD Holdings Co., Ltd., Tokyo District Court (2009). 25451735 of LEX/DB Internet.

CYBIRD Holdings Co., Ltd., Tokyo High Court (2010). 25470118 of LEX/DB Internet.

Egashira, K. (2006). *Laws of stock corporations (Japanese).* Tokyo: Yuhi-kaku.

Egashira, K. (2011). *Laws of stock corporations*, (4th Edition) *(Japanese).* Tokyo: Yuhi-kaku.

Fama, E. (1970). Efficient capital market: A review of theory and empirical work. *Journal of Finance*, *23*(1), 383-417.

Francis, J., Olsson, P., & Oswald, D. (2000). Comparing the accuracy and explainability of dividend, free cash flow, and abnormal earnings equity value estimates. *Journal of Accounting Research*, *38*(1), 45-70.

Feltham, G., & Ohlson, J. (1995). Valuation and clean surplus accounting for operating and financial activities. *Contemporary Accounting Research*, *11*(2), 689-731.

Financial Times (1997). *Wonderland accounting*.

Fujii, H., & Yamamoto, T. (1999). Comparative study on stock price: Explanatory power of accounting and cash flow information; A trial of application and improvement of the Ohlsonmodel. *Kaikei*, *156*(2), 14-29.

Inoue, K., Nakayama, R., & Masui, Y. (2010). What did the case of REX Holdings, Inc. bring: Findings of an empirical research (Japanese). *Shou-ji Hou-mu*, 1918, 4-17.

Ito, K. (2011). Revolution of financial reporting and firm valuation (Japanese). *Kigyou Kaikei*, *63*(12), 48-57.

Japan Accounting Association (2008). *Special Committee Report: The comprehensive research on accounting-based firm valuation (Japanese).* Tokyo: Japan Accounting Association.

Japanese Institute of Certified Public Accountants (2007). *Research report of the Management Study Group No.32: A guideline for firm valuation (Japanese).*

Japanese Institute of Certified Public Accountants (2010). *Research report of the Management Study Group No.41: Case studies (Japanese).*

Kanda, H. (2006). *Companies Act*, (Eighth Edition) *(Japanese)*. Tokyo: Koubun Dou.

Kanda, H. (2012). *Companies Act*, (Fourtheenth Edition) *(Japanese)*. Tokyo: Koubun Dou.

Kanebo Ltd., Tokyo District Court (2008). 28140797 of LEX/DB Internet.

Kanebo Ltd., Tokyo High Court. (2010). 25463658 of LEX/DB Internet.

Kato, T. (2009). An Analysis of the Supreme Court’s decision of the case REX Holdings, Inc. part1(Japanese). *Shou-ji Hou-mu*, 1875, 4-9.

Kitagawa, T. (2010). Review of the cases concerning determination of purchasing price of MBO part1(Japanese). *Shou-ji Hou-mu*, 1889, 4-11.

Kuroda, M. (2001). Japan group accounts. In Ordelheide, D. and KPMG (Eds.), *Transnational Accounting (Second Edition)* (pp.1807-1907). Basingstoke: Palgrave.

MARR (2012). Mergers & acquisitions research report: Statistics in December, 2011 (Japanese).

Nikkei (2012). The largest number of in-out M&A because of strong yen (Japanese).

Nishio, K., & Nakano, M. (2006). Comparing the accuracy, explainability, and performance of DCF, EVA, and Residual Earnings Estimates in Japan (Japanese). *Shyouken Analysts Journal*, *44*(2), 98-110.

Nobes, C.W., & Parker, R.H. (Eds.) (2012). *Comparative international accounting*, (Twelfth Edition). Harlow: Pearson.

Ou, J., & Penman, S. (1989a). Financial statement analysis and the prediction of stock returns. *Journal of Accounting and Economics*, *11*, 295-326.

Ou, J., & Penman, S. (1989b). Accounting measurement, price-earnings ratio, and the information content of security prices. *Journal of Accounting Research*, *27*, 111-144.

Penman, S. (1998). A synthesis of equity valuation techniques and the terminal value calculation for the dividend discount model. *Review of Accounting Studies*, *2*, 303-323.

Penman, S., & Sougiannis, T. (1998). A comparison of dividend, cash flow, and earnings approaches to equity valuation. *Contemporary Accounting Research*, *15*(3), 343-383.

REX Holdings, Inc. (2007). Tokyo district court. 28140300 of LEX/DB Internet.

REX Holdings, Inc. (2008). Tokyo high court. 28141955 of LEX/DB Internet.

REX Holdings, Inc. (2009). Supreme court. 25451498 of LEX/DB Internet.

Sakurai, H. (2001). Japan individual accounts. In Ordelheide, D. and KPMG (Eds.), *Transnational Accounting (Second Edition)* (pp.1685-1805). Basingstoke: Palgrave.

Scott, W. (2009). *Financial accounting theory*, (Fifth Edition). Toronto: Pearson Canada Inc.

Suda, K. (2000). *Positive theory and financial accounting (Japanese).* Tokyo: Haku-tou Shyo-bou.

Sunstar Inc., Osaka District Court (2008). 25451529 of LEX/DB Internet.

Sunstar Inc., Osaka High Court. (2009). 254515228 of LEX/DB Internet.

Sunstar Inc., Supreme Court (2010). 25462946 of LEX/DB Internet.

Takehara, H., & Suda, K. (2004). An empirical comparison of free cash flow and residual income models to estimate equity value (Japanese). *Gendai Disclosure Kenkyu*, 5, 23-35.

Takei, K. (2006). *Corporate law strategy: Collaboration of business & legal strategies (Japanese)*. Tokyo: Nihon Keizai Shibun-sha.

Toichi, T. (2012). An analysis of the Osaka District Court's decision concerning the case of determining the purchasing price of Culture Convenience Club Co., Ltd. (Japanese). *Shou-ji Hou-mu*, 1975, 41-51.

Tricker, R. (1994). *International corporate governance: Text, readings and cases.* Englewood Cliffs: Prentice-Hall.

Yanaga, M. (2012a). The decision of a fair price in case where firm value boosted as the result of -part1 (Japanese). *Shou-ji Hou-mu*, 1967, 4-11.

Yanaga, M. (2012b). The decision of a fair price in case where firm value boosted as the result of -part2 (Japanese). *Shou-ji Hou-mu*, 1968, 4-12.

Yoshimori, M. (1996). *Differences of management between Japan and the West (Japanese)*. Tokyo: Housou-daigaku Shinkou-kai.