◆ 論　文

Accounting for Intangible Assets: Widening Inconsistency in the Accounting Recognition between Acquired Intangible Assets and Internally-Generated Intangible Assets

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Ⅰ. INTRODUCTION

Almost 20 years are passing since several authorities of intangible assets started to debate on the importance of recognizing intangible assets in the balance sheet. This topic was heatedly argued around the millennium. For example, professor Baruch Lev had this to say in 2001 that "One important feature of modern economies in the early twenty-first century seems clear: intangible factors are playing an increasingly dominant role in wealth creation. … But intangible assets, despite their importance, are poorly measured (Lev 2001, p. v)." Professor Hirose had this to say in 2002 that we "strongly expect future progress and development in areas such as public disclosure and capitalization of brands (METI 2002, p.24)." It was in 1998 that the IASB issued *IAS 38 intangible assets* and mandatory required to recognize internally-generated intangible assets if very strict conditions were met (IASB 1998, par.45). It was in 2002 that the FASB started a project on "Disclosure of Information about Intangible Assets Not Recognized in Financial Statements" (FASB 2002) [1].

The most impressive remarks, at least for me, presented at that time were following one made by professor Lev (Lev 2003, p.17).

> *Intangible assets are both large and important. However, current financial statements provide very little information about these assets. Even worse, much of information that is provided is*

[1] The other authoritative literatures issued at that time included "*Unseen wealth*," published by Brookings Institutions (Blair=Wallman 2001) and "*Business and Financial Reporting, Challenges from the New Economy*," published by FASB (Upton 2001). Both of them were issued in 2001 and argued the importance of intangibles and its proper management.

partial, inconsistent, and confusing, leading to significant costs to companies, to investors, and to society as a whole. Solving this problem will require on-balance-sheet accounting for many of these assets as well as additional financial disclosure.

I understand that this remark reflects his hope, expectations and forecasts toward future development of this area. Have we accomplished the goals set by him (on-balance-sheet accounting and/or financial disclosure)? What kind of development has been made in this area during this period?

The purpose of this article is to verify the development during the last two-decades through several case studies. During this period, some amendments in accounting standards took place including an introduction of acquisition method in the accounting for business combinations and a capitalization of in-process R&D acquired through an acquisition. Furthermore, a new rule regarding the pushdown accounting was promulgated in 2014 (FASB 2014).

Other than the amendments in accounting standards include many heated discussions regarding how to evaluate intangible assets from the perspective of both numerical and theoretical viewpoints. In facts, several valuation models were presented by some researchers and institutions[2]. Furthermore, a topic of whether the intangible assets should be capitalized is also intensively debated. During the debates above, there seems to be a widening inconsistency between the acquired intangible assets and the internally-generated intangible assets. This article, therefore, focuses on the inconsistency between them.

Ⅱ. Why should Intangible Assets be Capitalized?

Some argue that the balance sheet fails to properly recognize intangible assets and it leads a failure of delivering useful information to investors and other financial statement users (Austin 2007, pp.65-67). I believe that such consideration comes from a huge gap which can be grasped by comparing the amount of net assets in the balance sheet and the stock market capitalization. For example, when the amount of a firm's net assets in its balance sheet is 100 and the market capitalization of the firm is 300, the gap is 200, which represents an estimation of unrecognized factors. Because almost part of the unrecognized factors is expected to be derived from intangible factors, it may be the

[2] For more details, I'm glad if you see my past article (Kaneta 2011).

easiest way to capture an approximate of internally-generated intangible assets.

Table 1 below shows the market capitalization, the book value of net assets, the difference between the two and its percentage against the market capitalization. Samples are derived from top 10 of U.S. companies by the market capitalization as of March 2018[3].

Table1. Data and their Relations of Intangible assets, Net assets, and Market Capitalization

	name	a) Market Capitalization ($ bn)	b) Net Assets ($ bn)	c) Difference a)-b)	d) Rate of Difference c)/a)	e) Intangibles on B/S ($ mn)	f) Total Assets ($ mn)	g) Rate of Intangibles e)/f)
1st	Apple	851	126	725	85%	None	367,502	0%
2nd	Alphabet	719	160	559	77%	2,809	206,935	1.35%
3rd	Microsoft	703	79	624	88%	8,544	245,497	3.48%
4th	Amazon	701	31	670	95%	13,388	126,362	10.59%
5th	Berkshire Hathaway	492	351	141	28%	87,339	702,651	12.43%
6th	Facebook	464	77	387	83%	20,003	88,945	22.49%
7th	Jp Morgan Chase	375	256	119	31%	54,533	2,609,785	2.09%
8th	Johnson & Johnson	344	63	281	81%	83,514	156,625	53.32%
9th	Exxon Mobil	316	194	122	38%	9,809	348,826	2.81%
10th	Bank of America	307	266	41	13%	68,951	2,328,478	2.96%

Note
1. Amounts of net assets are derived from the form 10-Q of each company submitted to the SEC.
2. All numbers in this table are ones as of the end of March 2018.

As shown, the market capitalization (column a)) excesses the book value of net assets (column b)) in all cases. Column c) represents the difference between the two. Column d) represents the rate of column c) against column a). The largest difference is Amazon's 95%. It means that 95% of corporate value (reflected in the market capitalization) is missing from the balance sheet! I believe that it is very natural that many researchers insist a need to recognize internally-generated intangible assets. An

[3] The ranking was obtained from (PWC 2018, slide 39). In fact, two Chinese companies are included in the top 10, but they are excluded from this study to avoid a negative effect provided by the difference of market.

average figure in this sample is 61.9%.

Other companies in the IT industry also show the huge differences (Apple's 85% Microsoft's 88%, and Facebook's 83%). The reason is easily understood by the fact that corporate value of IT industry mainly comes from intangible factors such as software, computer technology and skills of programmer etc.…, not from tangible factors such as PP&E. This means, in turn, the balance sheet fails to recognize any assets which should have been recognized there. Even for Exxon Mobil, which is expected to require the huge tangible assets such as pipeline and other facilities, 38% of its value is not recognized.

Column e) represents the actual amount of intangible assets in each balance sheet and column f) represents the total assets and finally column g) shows e)'s percentage against f).The percentages in column g), in contrast to the percentage in column d), are generally small except in the case of Johnson & Jonson. Average figure is 11.15%[4]. And surprisingly, Apple doesn't recognize intangible assets at all and doesn't use the key word "intangible" throughout, at least, its form 10-Q as of March 2018. I am easily convinced of the fact that current balance sheet provides little or no information regarding world-wide leading companies because we are never able to analyze Apple's operations with information limited to tangible assets such as financial assets or PP&E.

In the literature, many opinions regarding this topic (whether internally-generated intangible assets should be capitalized) have been presented, so far, by researchers who are proponent of recognizing internally-generated intangible assets.

The most powerful proposition is that "much empirical research shows evidences for the fact that R&D intensive companies are frequently undervalued in the market and they are inevitably forced to pay larger amounts to raise capital" (Lev 2008, p.210).

Some researchers point out that the current treatment for internally-generated intangible assets results in several inconsistencies. That is, while expenditures on a research and development are expensed as incurred, expenditures on exploring oil and gas and expenditures on a part of computer software development can be capitalized. This fact distorts a periodic matching of expense and revenue (Smalt=McComb 2016, pp.3-4). This inconsistency may be resolved by capitalizing the R&D expenditure.

As far as the wider discretion in recognizing and measuring intangible assets, Wyatt,

[4] A survey conducted by Austin among New Zealand companies shows only 10.9% of balance sheet value constitutes intangible assets (Austin 2007, p.63).

based on his empirical research, concludes that giving management the discretion under GAAP could improve the ability of earnings to predict performance (Wyatt 2005, p.968). He also states that limiting the choice to record intangible assets would thus tend to reduce, rather than improve, the quality of the balance sheet and investor's information set (Wyatt 2005, p.970).

Petkov argues that by expensing the expenditures to generate intangible assets, we lost the asset into the income statement, which makes it almost impossible to undercover and asset at a later stage (Petkov 2011, p.39). I interpret his view as that the expenditures appear in the income statement only at the period when the expenditures were made, while its effects continues for several periods ahead and it results in a miss-match between revenue and expense. Therefore his view is based on the matching principle.

So-called "hypothetical business combination approach" is frequently argued. Under the approach, the company recognizes and measures its own internally-generated intangibles as if the company has acquired itself in a business combination (Petkov 2011, p.41) (Smalt=McComb 2016, p.8).

Some researchers are concerned with the quite contrast treatment between acquired intangible assets and internally-generated intangible assets. For example, Morricone states that this asymmetric recognition substantially skews information provided by financial reports and significantly reduces the asset and equity values. This, in turn, might limit the comparability of the financial statements of companies that develop patents internally or buy them externally (Morricone 2011, p.290). Smalt=McComb argue that by adopting the hypothetical business combination approach and recognizing internally-generated intangible assets will lead a resolution of the contrast (Smalt=McComb 2016, p.8).

As far as disclosure of internally-generated intangible assets, Wyatt states that even unreliable numbers can be useful signals that (unobservable) assets exist, pointing investors in the direction of additional relevant information sources. Investors use financial statement analysis techniques and recognized data in the annual report, including the notes to the accounts, to adjust the financial statement information before using it in their valuation models. Investors do not expect financial information stand-alone (Wyatt 2008, p.247).

Arguments above are frequently provided by proponents for capitalizing internally-generated intangible assets. However they encounter several fierce criticisms by

opponents.

Ⅲ. Is Capitalizing Internally-Generated Intangible Assets Really Preferable?

As mentioned earlier, capitalizing internally-generated intangible assets is generally not allowed under current accounting standards, except under IAS38[5]. Many researchers point out the difficulty of evaluating intangible assets as its reason. To be sure, internally-generated intangible assets not only lack a consideration which can be used as a basis of valuation, but also they generally don't have an active market in which they can be traded as an arm's length transaction.

If such an understanding is right, the reason mentioned above might conversely mean that many researchers prefer the capitalization of internally-generated intangible assets once the valuation problem has successfully resolved. Is it right? The answer is, probably, No! There are many researchers who take a stance against the capitalization.

Some criticize the capitalization from a concern that several judgements made by managers are inevitably involved in its process. For example, Mindermann=Brösel state that judgements made by managements include whether the expenditure meets the six criteria in IAS38, whether the revaluation model is applied[6]. This fact provides a negative effect on reliability and/or comparability of accounting information (Mindermann= Brösel 2009, p13). Vašek=Filinger state, also from a concern in applying IAS38, that auditors are also forced to make a judgement whether an activity is in a research phase or in a development phase (Vašek=Filinger 2013, p.15). Jones states, based on his empirical study, that a manager in failing firms (firms into bankruptcy) capitalizes voluntary intangible assets more aggressively than non-failed firms (Jones 2011, p.52).

Another criticizes the capitalization from a position of conservatism. Watts strongly criticizes, saying "Researchers associate one particular set of expenditures on investment projects with the present value of those projects. But, in order to produce those present values, the expenditures have to be incurred jointly with other expenditures. Once again any allocation of the joint benefits or firm value to individual expenditures like

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[5] As well known, a U.K. accounting standard *FRS10* also permits an entity to recognize a limited scope of internally-generated intangible assets (ASB 1998, par14).

[6] Internally-generated intangible assets shall be recognized, under the IAS 38, if the following six criteria are met. That is, 1) technical feasibility to complete, 2) entity's intent to complete, 3) ability to use or sell, 4) future economic benefit (marketability), 5) adequate resource and 6) measurability (IASB 1998, par.57).

advertisement or research and development is arbitrary, meaningless and unverifiable" (Watts 2003, p.218).

Some point out a so-called "double count problem." This means that the excess cash flows generated by intangibles have already been reflected in the amount of sales and therefore have been reflected in the increasing of an asset such as cash or receivable. If an internally-generated intangible is capitalized later, the cash or receivable and the intangible assets are dually capitalized. The following concern pointed out by Wasserman reflects this problem: "The fear is that assets may be double-counted-costs that go into developing intangible assets are already counted as tangible assets- and it is often very difficult to isolate that portion that has not yet been counted" (Wasserman 2015, p.21)[7].

Some concern from the perspective of preparer side. Olsen=Hallwell state that even if the preparer recognize the importance and necessities of internally-generated intangible assets to grow and sustain a competitive advantage, there is little incentives to identify them because once they are recognized, they will have to be amortized. They say especially CFO and other executives are negative (Olsen=Hallwell 2007, pp.66-67).

In contrast, Elwin concerns from the perspective of financial statement users including analysts. He states that analysts concentrate on the profit and loss account not the balance sheet. Then he continues to state that regarding a capitalizing of intangibles at fair value, "analysts basically ignore those numbers. … Analysts and investors do not take account of the value of a customer list, partly because they know the value is very subjective and partly because it could disappear tomorrow." (Elwin 2008, pp.205-206).

Skinner concerns from his wide range of perspective. Fundamentally, he points out the fact that the balance sheet is not designed to form the basis for valuation (Skinner 2008, p.193). I agree with him and I believe, therefore, that the most problematic point mentioned earlier (the huge gap between the market capitalization and the book value of its net assets) turns to have no problem from the begging. Regarding another problematic point (intangible-intensive companies have many trouble when they seek to raise capital), Skinner states that "In fact, many technology companies (for example, Google ad Cisco) are valued relatively highly by investors and seem to have had little trouble to raising capital." (Skinner 2008, pp.193-194). As shown in Table 1, these companies are valued highly, to be sure. Skinner states finally that the traditional

[7] Elwin also points out the problem from a perspective of analysts, saying "Analysts ignore the amortization of intangibles because it tends to double count marketing costs that are already being expensed in the P&L," (Elwin 2008, p.205).

income statement provides investors with information about how well management performs selling goods and services above cost. Such information would be lost under a model in which book value tracked market value since the income statement would then record unrealized gains and losses on the firm's portfolio of assets and liabilities, so that analysts would lose much of the information on which fundamental analysis is based (Skinner 2008, p.195). I interpret his remarks as that the earnings of a company with many intangible factors are relatively high because they reflect a high selling price (or a saved cost). If the internally-generated intangible assets are capitalized and amortized against earnings, such relative advantage is lost.

Ⅳ. Accounting Standard for Internally-Generated Intangible Assets and Practices

Anyway, regarding a capitalizing internally-generated intangible assets on the balance sheet, two methods are allowed under the IAS 38: the cost method and the revaluation method. The two methods may produce very different results and I believe that they have quite different theoretical consequences. In short, the cost method simply capitalizes the current expenditures to create intangible assets. It is consistent with the matching principle. For example, when a company makes a development-related expenditure of $100 to create a distinctive technology (assume the conditions for capitalizing it are met), the following journal entry is made.

Dr. Development cost 100 Cr. Cash 100	then	Dr. Technology (Asset) 100 Cr. Development cost 100

Of course, the resulting technology asset can be called as an intangible asset, but it is just an accumulation of related expenditures and it doesn't represent the fair value of the technology (intangible asset). Therefore, it may not be attractive when considered from the view point of new economy proposed by Lev.

Conversely, the revaluation method allows reevaluating the book value of intangible assets at its fair value. Assume the fair value of the above mentioned technology assets is $500, the following journal entry is made in addition to the journal entry under the cost method.

Dr. Technology (Asset) 400
Cr. Revaluation Reserve 400

As a result of these entries, the amount of technology asset reaches to $500, which coincides with its fair value. If the difference between the book value of net assets and its market capitalization should be made up by internally-generated intangible assets, an applying the revaluation method is inevitable. Therefore, I am very interested in the method and practices under the method.

Table 2 in the next page summarizes the accounting for intangible assets by the top 10 UK companies[8].

I analyze these companies' annual report for fiscal 2017 focusing on whether the internally-generated intangible assets are capitalized, which method (the cost method or revaluation method) is used to account for them, and their proportional importance against total assets and market capitalizations.

As shown, all top 10 companies applied the cost method to account for the internally-generated intangible assets. It means that the amount of them recognized in the balance sheet is an accumulation of past expenditures and is not a fair value. Eight companies out of the ten capitalize the expenditures relating to intangible assets. These companies clearly state, in the notes to consolidated financial statements, that capitalizing the internally-generated intangible assets is their accounting policy. Remaining two companies (Diageo and Glencore) states that they expanse, as their accounting policy, every research and development expenditures as incurred.

As shown in column b), companies recognize a variety of internally-generated intangible assets including development costs, oil and gas exploration, software, patents, licenses, and trademarks. However, the relative importance of these assets is extremely low, except in the case of Royal Dutch and BP. These two companies belong to the oil industry and exploration costs are essential part of their operation. Therefore the recognized amount might be understood as a kind of inventories rather than intangible assets. Amounts of internally-generated intangible assets recognized other than the two companies are nominal and many of them are under one percent relative to the net assets and market capitalization (see column e) and f)). The reasons, of course, come partly from the following two facts. The one is that IAS 38 and/or FRS10 provide very strict conditions for recognizing internally-generated intangible assets, and another one

[8] I have searched actual cases among entities in the UK and its affiliates, because IFRSs or FRS10 (they permit to capitalize internally-generated intangible assets) are frequently applied in these jurisdictions. The ranking is derived from an internet-site "Economics Help" (https://www.economicshelp.org/finance/top-10-companies/).

is that all surveyed companies apply the cost method for subsequent measurement of these intangible assets.

Table2. Accounting Policy and Analysis Regarding Intangible Assets among Top 10 UK Companies

Company ($m)	a) Mkt Cap.	b) Capitalization of internally-generated intangibles (IGI)	c) Method	d) Total Assets	e) Ratio of IGI to Total Assets b) /d)	f) Ratio of IGI to Market Capitalization b) /a)
Royal Dutch Shell※1	252,711	Yes (Oil and Gas exploration=164,369)	Cost Method	407,097	40.37%	65.04%
HSBC Holdings	206,769	Yes (Software=2,641)	Cost Method	2,521,771	0.1%	1.27%
British American Tobacco	151,010	Yes (Software & Development=459)	Cost Method	141,038	0.32%	0.30%
BP	127,642	Yes (Oil & Gas explore, Software, Patents, License and Trademarks=17,026)	Cost Method	276,515	6.15%	13.33%
GlaxoSmithKline	101,135	Yes (Development cost for Patents and Licenses=354)	Cost Method	79,497	0.44%	0.35%
Diageo	88,987	None	Cost Method	40,676	None	None
AstraZeneca	85,582	Yes. (For example, Development cost for Approved Drugs) ※2	Cost Method	63,354	※2 (0.99%)	※2 (0.73%)
Vodafone Group	81,463	Yes. (Software. Amount is not disclosed※3)	Cost Method	154,684	※3 (3.11%)	※3 (5.90%)
Unilever	78,116	Yes. (Development cost. But no detailed information is provided.)	Cost Method	85,001	Unknown	Unknown
Glencore	70,567	None.	Cost Method	135,593	None	None

(Source: annual report of each company for fiscal 2017)

1 Royal Dutch Shell capitalizes oil and Gas exploration costs as a PP&E. Therefore, the ratio of internally-generated intangibles for this company is not comparative.

2 No amount is capitalized in 2017. Intangible assets are mainly consisted by research and device technologies are disclosed as $632m. If all of the $632m is assumed to be internally-generated intangible assets, e) ratio to total assets and f) ratio to market capitalization are 0.99% and 0.73% respectively.

3 The total book value of software is disclosed as $4,814m. It comprises of both purchased software and internally generated software. If all of the $4,814m is assumed to be internally-generated software, e) ratio to total assets and f) ratio to market capitalization are 3.11% and 5.90% respectively.

Anyway, a question I am very interesting in is how often is the revaluation method actually applied? So, I conducted a survey, to ascertain the cases in which the revaluation method is applied, randomly among other than the top 10 UK companies above. It was very tough task and the cases I found were, unfortunately, limited to only the following one case.

This is a case of HM Revenue & Customs. This entity is a UK department (agency) that is responsible for tax and custom. The annual report of this department states "Computer software that has been developed by the department and its IT service partners, and for which the department has ownership rights has been capitalized. This capitalization includes the staff costs for developing, integrating and testing IT software in the development of the programs (p.182)." It means that internally-generated software is capitalized. Then, as far as subsequent measurement, it states that this department account for its accounts "under the historical cost convention modified to account for the revaluation of property, plant and equipment, intangible assets… (p.179)." A note on intangible assets discloses the fact that a revaluation surplus is recorded only for the software (p.196). The following table 3 summarizes related accounts.

Table3. Revaluation of Internally-Generated Intangible Assets (HM Revenue & Customs)

Balance Sheet (fiscal 2017)			£m
Other Assets	4,303.4	Liabilities	4,270.8
		Other Equities	873.8
IGIA (Software)	846	Revaluation Surplus	4.8
	5,149.4		5,149.4

As you can see, the amount of the revaluation surplus is not little, but a relative importance of it is very low. The percentage against to the total assets is only 0.09% (= £4.8m/£5,149.4m). No detailed disclosure about revaluation is found.

While it is impossible to lead any conclusions from solely this case, it can be said, at least, an accounting combination of capitalizing internally-generated intangible assets and its subsequent revaluation is extremely rare, and its impact on the balance sheet is nominal, if any. Therefore, I believe that a current situation regarding the internally-generated intangible assets is very far from the fair value recognition on the balance sheet (Lev's forecast).

Ⅴ. Good-Bye to Purchase Method and Say Hello to Acquisition Method

While there has been little development for capitalizing internally-generated intangible assets at fair value, the scope and importance of recognizing purchased or acquired intangible assets have dramatically increased.

As you know, the acquisition method for business combinations was introduced by SFAS141 (R) issued by the Financial Accounting Standard Board (FASB) in 2007. It replaced the purchase method of accounting for business combinations. This statement had been codified later as the ASC805 and had been in effect since the fiscal year beginning after December 15, 2008. I believe that the acquisition method has provided several dramatic changes in the recognition of purchased intangible assets.

Although the identifiable assets and liabilities including intangible assets had been recognized at their fair value under the purchase method as well, it had been just a result of cost allocation. That is, the SFAS 141 (Purchase method) state "The same accounting principles shall apply in determining the cost of assets acquired individually, those acquired in a group, and those acquired in a business combination (FASB 2001, par.20)."

[Illustration 1]

Assume that company A acquires company B by paying $700 cash.

Company B's Balance Sheet

Land	300	Capital	300

For this transaction, several accounting can be considered as candidates.

(1) If no intangible is identifiable,

Dr. Land	300	Cr. Cash	700
Goodwil	400		

(2) Technology and Brand are identifiable,

Dr. Land	300	Cr. Cash	700
Technology	200		
Brand	150		
Goodwill	50		

(3) In addition to (2), If institutional capital is also identifiable,

Dr. Land	300	Cr. Cash	700
Technology	200		
Brand	150		
Institutional Capital	50		

The same accounting principle here, of course, means the historical cost accounting in which the amount of assets is determined based on the cost (consideration). The illustration 1 in the previous page considers the recognition of intangible assets under the purchase method.

Accountants who are persistent to conservatism may prefer an accounting in (1). Those who believe the recognition of intellectual property is necessary may prefer an accounting in (2). Those who believe the recognition of intellectual capital is also necessary may prefer an accounting in (3). Anyway, the total amounts of assets acquired have already decided by the consideration ($700 cash in this illustration) under the purchase method and the recognition of intangible assets may be carried out within the scope of consideration. Therefore, some argue that under historical accounting rules, the distinction between goodwill and intangible assets had been less important because both assets were expensed anyway (Donohue=Vallario 2002, p.75).

In contrast, under the acquisition method, "The acquirer shall measure the identifiable assets acquired and liabilities assumed, and any non-controlling interests in the acquiree at their acquisition-date fair values (FASB 2007, par.20)." It means that identifiable assets and liabilities have to be measured independently. In other words, the consideration involved is irrelevant to measure and record the identifiable assets. Therefore, researchers frequently regard the acquisition method as a full-fair-value approach (i.e. Davis＝Largay 2008, p.27).

Such a full-fair-value approach is reflected in the accounting for acquisition related costs. That is, the acquisition related costs are expensed immediately when they have accrued, instead of being capitalized. The reason is explained that they are not acquired assets in a business combination (Miller=Bahnson＝McAllister 2008, p.2). This treatment is consistent with a basic idea of the acquisition method that only the assets and liabilities acquired thorough the business combination should be capitalized. Some argue, however, this treatment is not consistent with other accounting treatments such as the acquisition costs being capitalized in a purchase of product (Davis＝Largay 2008, p.30). The other argues that such a contradictive rule may be used improperly as a method to boost a profit (Smith＝Saeman 2007, pp.19-20). Notwithstanding these concerns, the acquisition method pertains to full-fair-value approach which requires high level measurement.

Furthermore, such fair values should be measured based on a market participant perspective (exit values). This means that the fair value should not reflect the intent or plans the acquirer has at the date of acquisition. The exit values measured under

the acquisition method have a merit that these values indicate the fair values for public. Some argue, however, that this treatment allows the assets which will be abandoned after the combination to be capitalized at their acquisition date fair values and it provides some misleading information to investors (John 2007, p.2).

So-called negative goodwill should be recognized as an extraordinary gain at the date of acquisition. This may be acceptable because such a gain is a result of recording the net assets at their fair values. However, the many comment letters to the FASB expressed some opposition, because this treatment leads a result of recording a profit or a gain when the company implemented a purchase transaction (FASB 2006, par.46).

Anyway, it can be precisely said that the importance and/or consequences of valuing the intangible assets are dramatically increased compared with the era of purchase method.

Assume that the fair value of acquired assets in illustration 1 are land $320, technology $240, brand 280. These amounts are determined separately from the consideration of $700. A journal entry for this transaction is as follows.

Dr. Land	320		
Technology	240		
Brand	280		
Cr. Cash		700	
Gain from a bargain purchase		140	

Table4. Gain from a Bargain Purchase

Company	Consideration	Acquired net assets (intangible factor, if any)	Bargain Purchase Gain
Kemet	$150.3m	$212.5m. (Collective right regarding a receivable that was owned by an acquiree)	$62.1m
Advanced Drainage Systems	$9.5m	$10.1m (Trade name of $0.2m)	$0.6m
Michael Kors	$3.6m	$7.3m (License agreement. Amount is not disclosed)	$3.7m
NGL Energy	$23.1m	$24.4m (Non-Compete Agreement of $3.1m)	$1.3m
CSS Industries	$15.1m	$35.0m (Intangible Assets of $4.9m)	$19.9m
Air T.	$2.4m	$3.2m	$0.8m
Stonemor	$9.1m	$11.9m (Intangible Assets. The amount is not disclosed)	$2.8m

Valuing intangible assets is very important for this illustration because a result of valuation determines an earning or loss. Therefore, we should pay close attention to this pattern.

I surveyed this pattern. To avoid a bias in selecting samples, business combinations carried out by companies which filed its form 10-K between May the 1st and July the 31st 2018 are chosen as samples. The table 4 in the previous page summarizes the results.

I found 7 cases in which a gain from a bargain purchase is recognized. I believe that the number is not little. Rather, it is more than expected. The average percentage of the bargain purchase gain against the consideration is 4.27%. In the case of Kemet and Michael Kors, the percentage is 41% and 102% respectively, therefore, the relative importance of the gain is very large for the two cases. Intangible assets are frequently included in the acquired net assts. They include a trade name and non-compete agreement which are frequently explained as difficult factors to be valued. Because such an important gain is determined based on the asset valuations, the importance of intangible assets evaluation under the acquisition method should be highly regarded.

Ⅵ. Will a Push-Down Accounting Open the Door for Recognizing Internally-Generated Intangible Assets?

In November 2014, FASB issued a new standard for a pushdown accounting. Under the pushdown accounting, the acquired entity shall reflect in its separate financial statements the new basis of accounting established by the acquiring entity for individual assets and liabilities of the acquired entity (FASB 2014, par. 805-50-30-10). The pushdown accounting is applicable when a change in control takes place (like a business combination). The new basis established reflects the amounts which are decided by the constituents during the process of business combination or any other changes in control. The definition of the relating terms such as "change in control" and "assets and liabilities acquired" are as same as in the business combination standards. The application of the pushdown accounting is optional (FASB 2014, par.805-50-25-6). While this accounting method itself had already been applied under the SEC rules (Tysiac 2014), FASB establishes the new rules for general use (that is, this new rule is applicable not only for SEC registrants but also non-SEC registrants). The illustration 2 in the next page shows how to apply the pushdown accounting.

Before reflecting the new basis to its assets and liabilities, company B should

appropriate its retained earnings into a paid-in capital.

[Illustration 2]

Assume that company A acquires company B by paying $700. As a result of this transaction, company B becomes a wholly-owned subsidiary of company A. Company B's balance sheet at the transaction is as follow. Company A recognized a tract of land at $500 and technology at $600. These figures are fair values at the transaction.

Company B's Balance Sheet

Land	300	Capital	100
		Retained Earnings	200

This is because that company B will re-bear as a new company by having new basis for its assets and liabilities thorough pushdown accounting. It is reasonable that new company is assumed to start without any retained earnings.

Dr. Retained Earnings 200
Cr. Pushdown Paid-in Capital 200

Then, company B amends the figures of its assets and liabilities to reflect the new basis. In implementing such an amendment, the difference between the book value and new basis should be charged against (added to or subtracted from) the amount of pushdown paid-in capital. The reason is as same as the above, that is, such an amendment is eventually an initial recognition (raising capital through property contributed) for a new company B.

Dr. Land 200
Technology 600
Cr. Pushdown Paid-in Capital 800

As a result, the new basis is reflected into the balance sheet of company B as follow.

Company B's Balance Sheet

Land	300	Capital	100
Technology	600	Pushdown Paid-in Capital	1,000

Concisely, this accounting method enables the acquired entity to evaluate all its assets and liabilities at fair value as of the acquisition took place.

Although, the pushdown accounting itself is not a new accounting thought and it is not expected to have so much impact on today's practices. However, subsidiary's stand-alone financial statement may be used to obtain a loan; in that case, it is controversial (Baluch, et. al. 2010, p.7). In addition, auditors express their concern that assessing user needs may be more challenging when there are multiple users of the financial statements with different needs (e.g., creditors versus equity investors) (PWC 2014, p.2). Rashty also says "there are significant judgements involved in adoption of alternative accounting method acceptable for formation of a subsidiary" (Rashty 2018, p.55).

While the pushdown accounting is sometimes referred as a violation of historical cost accounting[9], I believe that it has not been a violation at least until an introduction of acquisition method. The reason is that the fair value used in an application of pushdown accounting is decided based on the amount that has already been negotiated between the constituent and actually paid as a consideration by the acquiring entity. Stated differently, the same amount with the new basis has already recorded in consolidated financial statements of acquiring company. Under the acquisition method, however, the fair values of assets and liabilities are determined separately from considerations. This fact means that the valuation under the acquisition method is not consistent with historical cost accounting theory.

Anyway, what is a consequence of pushdown accounting to the accounting for internally-generated intangible assets? I believe that the most significant point is the pushdown accounting might open a closed door to introduce a hypothetical business combination.

As mentioned earlier, some researchers have an opinion that a hypothetical business combination should be implemented to recognize internally-generated intangible assets. I believe that if an acquiring company can push down the fair value to its subsidiaries, it can also pushdown the fair value to itself. In the course of such consideration, I examine a company that discloses the result of pushdown accounting.

Table 5 in the next page shows a note to consolidated financial statement prepared by J. Jill, Inc. for fiscal 2016. I choose this case because I could find the balance sheet before the pushing down to be compared with the figures pushed down[10]. As shown, the total

[9] Colley and Volcan provide a depth discussion on whether the pushdown accounting can be explained within the scope of historical cost accounting and other traditional accounting theory including an entity theory of consolidated financial statement (Colley=Volcan 1988, p.76).

[10] Of course, there is a time-difference between the balance sheet date and the transaction date that triggers the pushdown accounting, there may be, therefore, several transactions which affect the book value immediate before the pushing down. However, there is no major transaction reported between the two dates, I have judged the two data is comparable.

assets increased by $284m (=$562m-$278m) or 102% increase (more than doubled).

Table5. Effects of Pushdown Accounting-A case in J. Jill, Inc.

Jill intermediate LLC was acquired by JJill holdings, Inc. (currently J.Jill, Inc.) in May 2015. Acquirer applied the pushdown accounting. The latest balance sheet of the acquiree is as follow (at Jan. 31 2014).
The consideration of this acquisition was $396.4 million.
① Balance sheet before pushing down ($m)

Current Assets	71	Liabilities	207
Non-Current Assets			
PP&E	62		
Intangibles	77	Shareholder's Equity	72
Goodwill	67		
Others	1		
Total	278	Total	278

(Source: Archive offered by @Fidelity)

② Balance sheet after pushing down ($m)

Current Assets	94	Liabilities	166
Non-Current Assets			
PP&E	79		
Intangibles	192	Shareholder's Equity	396
Goodwill	197		
Others	0		
Total	562	Total	562

(Source: Archive offered by @Fidelity)

Then we can find a fact that a large portion of increased value is assigned to intangibles and goodwill. Intangibles increased by $115m (=$192m-$77m) or about 150% increase and goodwill increased by $120m (=$197m-$77m) or about 155% increase. The amount allocated to intangibles and goodwill totals $389m and it is equivalent to 98% of considerations of this acquisition. This fact represents the importance of intangible assets in today's business and it is consistence with a notion presented in earlier that the gap between the market capitalization and book value of net assets should be resolved immediately.

Regarding how to evaluate the intangibles, the company states in a note to consolidated financial statements as shown in table.6.

We are able to know that $58.1m of trade name is evaluated by the relief from royalty method, and $134.2m of customer relationships is evaluated by the excess earnings method. While a trade name and customer relationships are viewed as difficult to evaluate, accounting practitioners are bravely challenging to evaluate several tough intangible factors. It may imply a practical feasibility of the hypothetical acquisition approach.

Table6. Disclosure regarding the Pushdown Accounting－A case in J. Jill, Inc.

J.Jill, Inc. discloses the following information in the notes to consolidated financial statement. This table cites a part of intangibles only.

"*The fair value of the acquired intangible assets was estimated using the relief from royalty method for our trade name and the excess earnings method for customer relationships. Under the relief-from-royalty method, the fair value estimate of the acquired trade name was determined based on the present value of the economic royalty savings associated with the ownership or possession of the trade name based on an estimated royalty rate applied to the cash flows to be generated by the business. The fair value of the trade name acquired as a result of the Acquisition was $58.1 million.*"

"*The fair value of customer relationships acquired in the Acquisition was estimated using the excess earnings method. Under the excess earnings method, the value of the intangible asset is equal to the present value of the after-tax cash flows attributable solely to the subject intangible asset. The fair value of customer relationships acquired as a result of the Acquisition was $134.2 million.*"

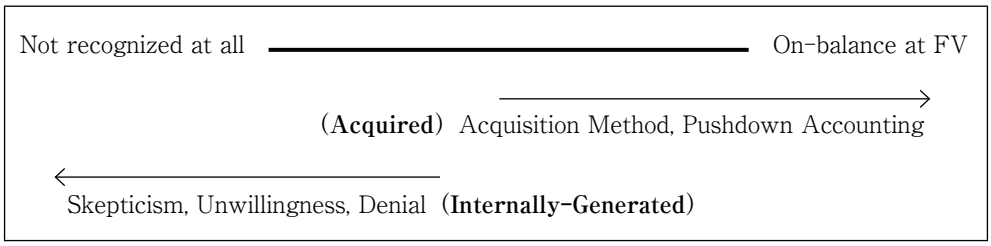
(Source: J.Jill, Inc.'s form 1o-k filed for fiscal 2016)

Ⅶ. CONCLUSIONS

A huge gap between book value of net assets in the balance sheet and company's market capitalizations has reached to unacceptable level in around late 1990's and many researchers have argued the need to make up the gap. To do this, capitalizing a variety of internally-generated intangible assets, as well as the acquired intangible assets, at their fair market value is inevitable. This article demonstrates a fact that these two types of intangible assets have experienced quite contrast development. The scope and degree of capitalizing acquired intangible assets is expanding thorough the introduction

of acquisition method and/or pushdown accounting. In contrast, little development is observed for internally-generated intangible assets not only due to the limitations charged by accounting standards but also a variety of negative thought including a skepticism regarding a reliability of its measurement, unwillingness of management to disclose it and denials raised by financial statement users. The following chart represents a direction of development for each.

I believe that there are two challenges toward overcoming this situation. The first one is continuing to seek a way to capitalize the internally-generated intangible assets.



In doing so, we have to continue to develop reliable valuation models for a variety of intangible factors. Furthermore we have to establish a theoretical framework which enables to include internally-generated intangible assets to be recognized in it. An introduction of "Comprehensive Balance Sheet" proposed by Lev may be one of the options. Comprehensive balance sheet may contain a variety of capitalized intangibles such as R&D, patents, brands, and sometimes organizational capital, Lev states (Lev 2003, p.20). To be sure, we have already introduced a comprehensive income statement for recognizing flows into and/or out from a company in our current accounting framework. The following two-statement approach may be supposed.

1 Balance sheet and Income statement
→ to provide historical cost accounting information
2 Comprehensive balance sheet and Comprehensive income statement
→ to provide full-fair market value accounting information

The other one is to consider an establishment of a new disclosure system. According to this perspective, several previous researches propose many systems (Li 2018, p.422). Enhanced Financial Reporting (EFR) proposed by Hirose and Integrated Reporting proposed by IIRC might be representative systems. EFR is defined as "to provide useful information which enable current and potential investors and other information users to

make a reasonable investment decision or others," (Hirose ed. 2011, p.281). Integrated reporting is defined as "a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term," (IIRC 2013, p.7). If prepares are able to provide adequate information or to do a communication through these systems, the gap between the net assets and market capitalization might be made up.

In either challenge, there are expected to be a plenty of problems. In an itinerary toward a goal, the following remark made by a leading managerial accounting professor Ko, Tasaka should be kept in mind. "An integration of managerial accounting and financial accounting is essential to establish a reasonable accounting framework for intangible assets."

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