

Managers' discretion in purchase price allocation: a comparison between U.K. and Italian insurers

Alessandro Lai* and Riccardo Stacchezzini**

Under IFRS, accounting for business combinations deserves a specific treatment when mergers and acquisitions occur among insurers. Specific intangibles related to the insurance business can be recognized in the consolidated financial statement, and managers have discretion in the purchase price allocation.

This paper aims to shed lights on the ways this discretion is played by UK and Italian listed insurers in respect of the recognition and measurement of insurance-related intangible assets.

Fields of research: G22, G34 and M41

1. Business combinations in the insurance sector: introduction

More than three quarters of listed Italian and British insurance groups have reported in the last three years business combinations in the consolidated financial statements. Almost all of these transactions concerned the transfer of the control of insurance portfolios.

The accounting of the resources acquired by the insurance companies through such transactions requires the application not only of IFRS 3 “*Business Combinations*”, IAS 38 “*Intangible Assets*” and IAS 36 “*Impairment of assets*”, as in the case of enterprises operating in other sectors, but also of IFRS 4 “*Insurance Contracts*”, therefore, according to a method that differs from the usual purchase price allocation.

Even though IFRS 4 requires the evaluation at fair value of the acquired assets and liabilities, in compliance with IFRS 3, it allows the use of a separate presentation of the fair value of the acquired insurance contracts (so-called “expanded presentation”), posting:

- a. an insurance liability evaluated by the company in compliance with the local accounting principles;
- b. one or several intangible assets in an amount that is equal to the difference between the fair value of the acquired rights and obligations and the value of the liability referred to in the previous item.

This difference can be “directly” evaluated through the use of techniques that lead to the *Value of in-force contracts* (“VIF”), or according to other actuarial methods.

* *Alessandro Lai*, Full Professor, Department of “Economia aziendale” (Business Administration), University of Verona (Italy), email: alessandro.lai@univr.it.

** *Riccardo Stacchezzini*, Assistant Professor, Department of “Economia aziendale” (Business Administration), University of Verona (Italy), email: riccardo.stacchezzini@univr.it.

Though this research has been thought and developed together by the authors, Alessandro Lai is the author of paragraphs 1 and 3, while Riccardo Stacchezzini wrote paragraphs 2, 4 and 5 and he is the coordinator of the financial reports empirical analysis. Authors thanks Giulia Leoni, Ph.D. student at Verona University, for her support to the financial report data collection.

When represented in the financial reports, the difference is excluded by the prescriptions of IAS 38 and by the impairment test referred to in IAS 36, and it is amortized along the duration of the acquired contracts.

The indication of "VIF" (or "VOBA" – value of business acquired) does not exclude *per se* the presentation of other intangible assets related to the nature of the acquired portfolios or companies. These values are oftentimes concisely included in the goodwill, even though they could be better distinguished, according to the indications recently also given by the *International actuarial standard of practice no. 11* (practice guideline – September 2008), as follows: *a)* Renewal periods for short-duration contracts; *b)* Distribution systems or relationships; *c)* Customer relationships; *d)* Service agreements; *e)* Brand names, trademarks, and copyrights; *f)* Proprietary software or technology; *g)* Licenses to transact insurance business; *h)* Product approvals and registrations.

2. Position of the research in the accounting literature debate

Business combinations are at the center of a lively debate in the literature on accounting and business administration. In particular, in the studies on the *reliability* of the accounting for such transactions (Muller 1999), the debate becomes quite heated especially when the reference regulations vary (for example, switching from local gaaps to international accounting principles, as it has happened in the context we have observed) or when (previously) in force accounting principles are updated (let us take for example the recent revision of IFRS 3 "*Business Combinations*") and substantial differences from the past emerge (Watts, 2003; Beatty & Weber, 2006; Bens & Heltzer, 2006; Ramanna, 2006; Ramanna & Watts, 2009). Within the above referred studies, the attention focuses on the identification of the determinants of the choices of purchase price allocation and related incentives, testing the reliability of allocation choices with earnings management hypotheses (Healy & Wahlen, 1999).

In the insurance sector, these analyses still have not been developed like in other sectors, even though several contributions have been given by scholars who analyze the reliability of financial report information and the correlated earnings management policies implemented by the insurance companies (Beaver & McNichols, 1998; Gaver & Paterson, 2000; Petroni, Ryan & Wahlen, 2000; Kim & Lee, 2003).

The purpose of this paper is to give a knowledge contribution on this issue, verifying if:

- i.* the behavior of the insurance groups is homogeneous between Italy and the UK due to the existence of the same framework of IAS/IFRS principles.
- ii.* it is possible to value situations that can be attributed to the earnings management in the light of the choices made in the financial reports.

3. Research methodology and empirical evidence of business combinations reported by UK and Italian insurers

This paper pursues the indicated objectives by means of an empirical research based on the 2005, 2006 and 2007 accounts of all insurance groups that have drawn up IFRS-compliant consolidated financial reports, have Italy or the UK as their country of incorporation and are respectively listed in the Italian stock exchange (*Borsa Italiana*) or in the London Stock Exchange. The Italian listed insurance groups, which are all included in the analysis, were 10 in 2005, 8 in 2006 and 2007, while for the UK

analyzable groups were 17 in 2005, 20 in 2006 and 28 in 2007. As far as the high number of analyzable groups allows, this empirical research is coupled with the use of quantitative tools aiming at verifying the existence of earnings management policies.

In Italy as well as in the United Kingdom, business combination transactions are characterized by the transfer of insurance contracts rather than by the extension in other activity sectors (Tables 1 and 2). From the empirical analysis it has also emerged that a substantial portion of the purchase price of such transactions is allocated among the intangibles, in particular in the accounts that show the goodwill and, as far as the UK is concerned, among the other intangibles with an indefinite useful life (Tables 3 and 4).

Table 1 – Annual financial accounts reporting business combinations (b.c.).

		2007	2006	2005		2007	2006	2005
b.c. in the current reporting year	Italy	50,0%	25,0%	20,0%	U.K.	35,7%	40,0%	47,1%
b.c. in previous reporting years		87,5%	87,5%	90,0%		89,3%	80,0%	88,2%
b.c. only in the current year		0,0%	0,0%	0,0%		0,0%	10,0%	0,0%
no b.c. in previous and current reporting years		12,5%	12,5%	10,0%		10,7%	5,0%	5,9%

Table 2 – Sectors of the entities acquired in a business combination.

		2007	2006	2005		2007	2006	2005
only insurance sector	Italy	75,0%	50,0%	50,0%	U.K.	90,0%	75%	100,0%
both insurance sector and other sectors		25,0%	50,0%	0,0%		10,0%	12,5%	0,0%
only other sectors		0,0%	0,0%	50,0%		0,0%	12,5%	0,0%

Table 3 – Purchase price allocated to intangible assets over purchase price.

		2007	2006	2005		2007	2006	2005
goodwill	Italy	63,4%	43,4%	10,6%	U.K.	49,3%	31,6%	74,0%
other indefinite useful life intangibles		0,0%	0,0%	0,0%		46,7%	0,0%	22,0%
definite useful life intangibles		23,1%	23,6%	6,8%		32,4%	82,1%	17,4%
<i>total</i>		86,5%	67%	17%		128,4%	113,7%	113,4%

Table 4 – Individual intangible assets over total intangible assets acquired in a business combination.

		2007	2006	2005
Italy	Goodwill	73,3%	64,7%	60,9%
	Other indefinite useful life intangibles	0,0%	0,0%	0,0%
	Definite useful life intangibles	26,7%	35,3%	39,1%
	– <i>vif / voba</i>	26,6%	33,0%	26,8%
	– <i>software</i>	0,1%	0,0%	11,3%
	– <i>other assets (not specified)</i>	0,0%	2,3%	1,1%
U.K.	Goodwill	38,4%	27,8%	65,3%
	Other indefinite useful life intangibles	36,4%	0,0%	19,4%
	– <i>distribution systems or relationships</i>	36,4%	0,0%	0,0%
	– <i>brands</i>	0,0%	0,0%	19,1%
	– <i>licenses</i>	0,0%	0,0%	0,2%
	Definite useful life intangibles	25,2%	72,2%	15,4%
	– <i>vif / voba</i>	3,8%	67,4%	14,7%
	– <i>software</i>	0,6%	0,0%	0,0%
	– <i>distribution systems or relationships</i>	5,1%	4,6%	0,0%
	– <i>customer relationships</i>	6,8%	0,0%	0,0%
– <i>brands</i>	0,4%	0,0%	0,0%	
– <i>other assets (not specified)</i>	8,5%	0,2%	0,7%	

The different behaviors of the insurance groups in Italy and the UK are now well recognizable:

a. There are no intangibles with an indefinite useful life other than goodwill in Italy, while in the UK this category of intangibles significantly varies each year, reaching in any case almost half the total allocation value of the purchase price (46.7%) in one of the years of the reference three-year period (without considering the goodwill). In the British context, three types of intangibles can be identified, namely, distribution systems and relationships, brands, and licenses to transact insurance business.

b. Also the percentage of intangibles with a definite useful life is higher in the UK than in the Italian context, where it accounts for 23% of the purchase price value that can be allocated, in the last two years of the reference three-year period. Furthermore, it is worth mentioning the variety typical of such intangibles in the British accounts, where the following can be found: VIF/VOBA, software, distribution systems, customer relationships, brands, and other unspecified intangibles. In particular, distribution systems and customer relationships – in the last observed year – have achieved a value of almost 12% of what has been allocated in the last year, besides other not better identified intangibles, whose weight in any case is not marginal. Only in one of the years to which the analysis has been extended, VIF/VOBA shows the highest value, unlike in the Italian scenario, where almost all intangibles with a definite useful life are instead represented by this category.

c. In comparison to British accounts, in the Italian accounts the goodwill has a more substantial weight than the other components (except in the first year of application of IAS/IFRS). This value even reaches 63% of the total purchase price value that can be allocated (Table 3) and 73% of the total value of intangibles resulting from business combinations in Italy (Table 4), while these percentages in the UK are respectively of 49% and 38%.

d. In the Italian insurers' financial reports the definite useful life of intangibles rarely exceeds ten years and reaches eleven years only in the transferred insurance portfolios (usually these are treated with an amortization period of 4 to 11 years, as shown in Table 5). On the contrary, the British groups present a greater variety of "specific" intangibles and a longer duration of the definite useful life with respect to the Italian scenario.

Table 5 – Range of the useful life of intangible assets (years).

		2007	2006	2005
Italy	vif / voba	4-11	4-11	5-11
	software, licenses, brands	3-10	3-10	3-10
	research and development projects	3-5	3-5	3-5
	other assets (not specified)	2-10	2-10	2-10
	<i>total intangibles</i>	<i>2-11</i>	<i>2-11</i>	<i>2-11</i>
U.K.	vif / voba	5-50	5-50	5-50
	software, licenses, brands	2-12	2-15	2-15
	purchased syndicate capacity	3-15	3-15	15
	distribution channels and customer lists	20	5-22	–
	investment contracts	15	15	15
	customer relationships	10	5-10	9-22
	insurance contracts renewal rights	3-12	3-10	10
	other assets (not specified)	10-20	10-20	10
<i>total intangibles</i>	<i>2-50</i>	<i>2-50</i>	<i>2-50</i>	

Based on a combined reading of the phenomena described so far, it is possible to distinguish two separate situations:

a. The Italian situation, in relation to which we interviewed a few insurance CFOs and where the accounting behaviors of insurance groups can be explained first of all by the generally accepted contractual tradition of not giving distinct evidence of the intangible assets transferred on the occasion of a business combination, with the on-

ly possible exception of the VIF/VOBA (which can also be ascertained after the signing of the contract using actuarial techniques that lend a relative objectivity to the quantification). The residual portion of the purchase price allocated to intangibles assets is attributed, in almost the majority of the cases, to the goodwill. Second of all, the circumstance whereby the separate accounts of the insurance companies are drawn up according to a non-IFRS compliant framework certainly does not lead the presentation – in the IAS/IFRS consolidated accounts – of the components with a definite useful life, given that the same income effect can be obtained in the separate accounts through the amortization of the goodwill.

b. The British context shows convergent behaviors with respect to the expectations of the international actuarial principles, suggesting the identification and measurement of the most differentiated intangible components (IASP 11), since the intangible components are shown separately from the goodwill, whose amount as well is not marginal.

4. Testing the discretion used in the accounting of business combinations: preliminary findings from the insurance sector

The choices made with reference to the purchase price allocation reflect on the identification of the cash generating units (CGU), for which an impairment test (IAS 36) is carried out. Accounting scholars associate the methods for selecting the CGUs with earnings management hypotheses, showing that as the number of CGUs identified during the purchase price allocation increases, the discretionary margins that can be used by those who drawn up the financial accounts to avoid the recording of an impairment loss also step up (Ahmed & Guler, 2007).

In the Italian insurance financial reports, CGUs are usually attributed to the individual enterprises being acquired. There are certainly groups that separately identify the CGUs with the life business and with the non-life one of individual companies, just like there are groups that use both the above mentioned criteria (Table 6). In the UK the situation is instead more heterogeneous, also on the account of the variety and the geographical extension of the activities exercised by listed groups. Furthermore, sometimes in the UK analytical information is not provided on the methods for the identification of the CGUs (Table 7) even when a high number of units is identified (for example, more than 5).

Table 6 – Assets selected to identify cash generating units (CGUs).

		2007	2006	2005		2007	2006	2005
business units (life, non-life and other business)		12,5%	12,5%	20,0%		7,1%	10,0%	17,6%
Single firm life business and non-life business		12,5%	25,0%	0,0%		0,0%	0,0%	0,0%
business units, then geographical areas		0,0%	0,0%	20,0%		7,1%	5,0%	5,9%
single firms and business units		0,0%	0,0%	20,0%		3,6%	5,0%	5,9%
geographical areas	Italy	0,0%	0,0%	20,0%	UK	7,1%	10,0%	11,8%
geographical areas, then business units		0,0%	0,0%	20,0%		3,6%	5,0%	0,0%
single firms		62,5%	50,0%	50,0%		25,0%	20,0%	11,8%
(whole) group		0,0%	0,0%	0,0%		3,6%	0,0%	0,0%
not shown even if b.c. occurred		0,0%	0,0%	0,0%		17,6%	15,0%	17,6%
not shown as b.c. not occurred		12,5%	12,5%	10,0%		25,0%	30,0%	29,4%

Table 7 – Number of CGUs identified to test impairment losses.

		2007	2006	2005		2007	2006	2005
1 CGU	Italy	12,5%	12,5%	10,0%	U.K.	10,7%	5,0%	5,9%
2 CGUs		12,5%	12,5%	20,0%		7,1%	10,0%	11,8%
3 CGUs		12,5%	12,5%	10,0%		10,7%	10,0%	11,8%
4 CGUs		0,0%	0,0%	0,0%		0,0%	5,0%	11,8%
5 CGUs		0,0%	0,0%	20,0%		0,0%	15,0%	0,0%
6 CGUs		25,0%	12,5%	0,0%		7,1%	0,0%	5,9%
7 CGUs		0,0%	12,5%	10,0%		7,1%	5,0%	0,0%
8 CGUs		0,0%	12,5%	20,0%		3,6%	5,0%	5,9%
9 CGUs		25,0%	0,0%	0,0%		3,6%	0,0%	0,0%
10 or more CGUs		0,0%	12,5%	0,0%		3,6%	0,0%	0,0%
Not shown even when b.c. occurred		0,0%	0,0%	0,0%		21,4%	15,0%	17,6%
Not shown as b.c. not occurred	12,5%	12,5%	10,0%	25,0%	30,0%	29,4%		

The choices of purchase price allocation (hereinafter PPA) are now tested, considering that the accounting literature attributes to these possible earnings management behaviors. The available studies – which are not relative to the insurance sector – show that as the extension and number of the CGUs to which the business combination values are attributed increases, also the following increases: a) the ratio between purchase price allocated to intangible elements and total purchase price [*hypothesis 1a*]; b) the ratio between purchase price allocated to intangibles with an indefinite useful life and purchase price overall allocated to intangibles [*hypothesis 1b*] (Zhang & Zhang, 2007, p. 15 and Ramanna, 2007, pp. 9-10).

The above mentioned correlation hypotheses are not confirmed by the Italian groups, when these hypotheses are searched irrespective of the extension of the CGUs (that is, taking as a reference only their number) and basically when the analysis is carried out with reference to CGUs with a similar extension (business areas of the groups, individual companies, business areas of individual companies, geographical areas, etc.). In the British groups, when we do not consider the extension of the CGUs and only their number is taken as a reference, the hypothesis suggested by the literature is confirmed, stating that the number of the CGUs to which the values of the business combinations is attributed is positively correlated to the “weight” of the purchase price allocated to intangible elements (PP allocated to intangibles / PP) [*hypothesis 1a*]. The hypothesis of a positive correlation between the “weight” of the intangibles with an indefinite useful life (goodwill and other specific intangibles) and the amount of the total purchase price allocated to the intangibles [*hypothesis 1b*] is not confirmed (Table 8).

Earnings management behaviors are reported in literature only when there is a correlation between market-to-book ratio of the shares of the buyer and PPA choices. In particular, a few researches show that, as the market-to-book ratio of the shares of the buyer increases before the acquisition, also the following increases: a) The “weight” of the PP allocated to intangible elements [*hypothesis 2a*]; b) The “weight” of the intangibles with an indefinite useful life with respect to the total PP amount allocated to the intangibles [*hypothesis 2b*] (Zhang & Zhang, 2007, p. 14).

In the insurance sector, relatively to the Italian and British listed companies, the above mentioned correlation hypotheses [*hypotheses 2a and 2b*], which are tested taking as the date of recording of the market-to-book ratio the first day of the year in which a business combination has occurred, are not confirmed (Table 9).

Table 8 – Values useful to test correlations between the number of CGUs (a) and the PP allocated to intangibles (b) [*hypothesis 2a*]; and between the number of CGUs (a) and the PP allocated to each intangible over the total PP allocated to intangibles (c) [*hypothesis 2b*]. Values are shown according to the type of CGU (d).

Italy	a	9	11	5	6	6	8	9	6
	b	40%	66%	57%	91%	78%	0%	83%	59%
	c	31%	65%	62%	78%	63%	0%	31%	100%
	d	firms (f.)			business units (b.u.)			f. and geographical areas (g.a.)	

U.K.	a	7	9	5	1	5	2	2	5	4	3	3
	b	89%	158%	90%	57%	166%	15%	43%	135%	122%	112%	84%
	c	75%	34%	65%	100%	100%	100%	100%	27%	99%	93%	90%
	d	firms (f.)				business units (b.u.)			geographical areas (g.a.)			

U.K. (continued)	a	8	8	8	6	4	7	14
	b	71%	80%	87%	54%	115%	105%	190%
	c	100%	100%	50%	85%	45%	27%	88%
	d	business units, then geographical areas			firms and business units		g.a., then b.u.	

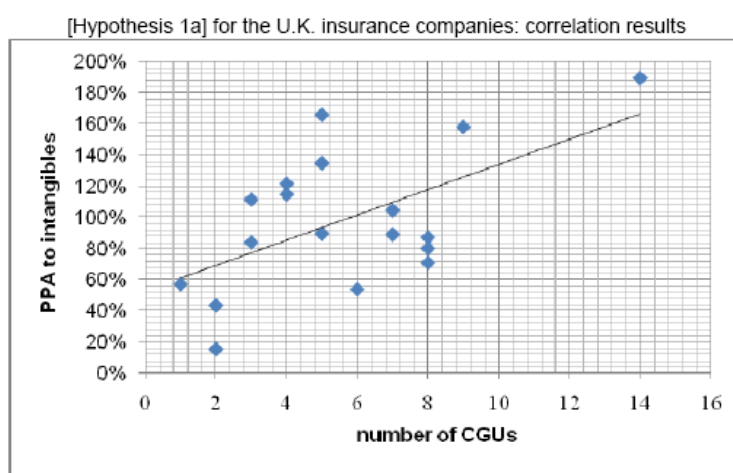


Table 9 – Values useful to test correlations between the *market to book ratio* (a) and the PP allocated to intangibles (b) [*hypothesis 2a*]; and between the *market to book ratio* (a) and the PP allocated to each intangible over the total PP allocated to intangibles (c) [*hypothesis 2b*].

Italy									
a	0,6	1,7	3,9	1,2	1,3	3,6	1,4	1,2	
b	40%	91%	83%	59%	78%	66%	57%	0%	
c	31%	78%	31%	100%	63%	65%	62%	0%	
U.K.									
a	3,3	1,0	2,4	1,0	4,5	1,1	1,2	4,1	1,6
b	61%	190%	89%	54%	87%	111%	15%	71%	105%
c	0%	88%	75%	85%	93%	34%	100%	100%	27%
U.K. (continued)									
a	0,9	0,5	1,5	0,8	1,1	3,1	0,7	6,1	0,4
b	84%	57%	166%	122%	43%	67%	115%	80%	61%
c	90%	100%	100%	99%	100%	0%	38%	100%	100%

5. Conclusions

The empirical analysis based on the IFRS-compliant insurance financial reports has allowed to show that the allocation of the purchase price occurs in different ways in Italy and the UK, even though the groups of these two countries are subject to the same international principles. Even though in both countries the intangibles are assets to which a large portion of the purchase price is attributed, the method for its allocation to individual intangibles, other than the goodwill, in fact largely varies. In Italy

a primary role is played by VIF/VOBA, with the subsequent recognition of assets representing the benefits of *current* insurance contracts, while in the UK a preponderant role is assigned to specific intangibles that express benefits linked to *future* insurance contracts (e.g., expected benefits from a customer relationship).

With the awareness that the low number of analyzed groups – due to the fact that the IAS/IFRS have only been applied for a few years – rules out the possibility to make really conclusive assertions, the above outlined findings do not allow to statistically validate earnings management behaviors in the business combination transactions carried out by listed insurance groups. This is contrary to what has been shown for such transactions in other sectors, and to those studies that, for the insurance sector, have given evidence of earnings management behaviors in the financial report allocations other than those underlying the PPA of the business combination.

We should also wonder if the results obtained from the tests are conditioned by the peculiarities according to which the values referable to “insurance” business combinations as of today are written in the financial reports. It will be possible to answer this question when IASB, upon conclusion of the “Insurance Contracts” project, defines the new accounting model of insurance contracts. This project – whose final results are expected in 2011 – will certainly revolutionize the accounting for insurance contracts, with the introduction of a new standard that will systematize the evaluation of the insurance liabilities (Floreani & Selleri, 2006; Stacchezzini, 2007).

From this “revolution” impacts are also expected on the intangible values originating from business combination transactions, if it is true in fact that while the currently in force framework requires that in a business combination the insurance liabilities remain written at book values and that a specific intangible be written – the previously mentioned value of in-force contracts (VIF) –, the expected new framework should provide for the measurement of the insurance liabilities at current values, consequently with the “disappearance” of such intangible. It is expected therefore that with the migration to the new accounting model, only the benefits expected from the *future* insurance contracts can be recognized among the intangibles – contrary to what occurs today in the posting of the VIF, attributable to *current* contracts – and that therefore the accounting model of the “insurance” intangibles will become non-specific. As an effect of the evolution of the accounting principle, it is also expected that the gap between the dissimilar behaviors of Italy and the UK will progressively shrink.

References

- Ahmed A.S. & Guler L. 2003, 'Evidence of the Effects of SFAS 142 on the Reliability of Goodwill Write-offs', *working paper*, May 25.
- Beatty A. & Weber J. 2006, 'Accounting Discretion in Fair Value Estimates: An Examination of SFAS 142 Goodwill Impairments', *Journal of Accounting Research*, vol. 44, no. 2, pp. 257-288.
- Beaver W.H. & McNichols M.F. 1998, 'The characteristics and valuation of loss reserves of property casualty insurers', *Review of Accounting Studies*, vol. 3, no. 1/2, 1998, pp. 73-95.
- Bens D.A. & Hetzler W. 2006, 'The Information Content and Timeliness of Fair Value Asset Impairment Triggers: Goodwill Write-offs Before, During and After Implementation of SFAS 142', *working paper*, University of Arizona.
- Floreani A. & Selleri L. 2006, *Principi contabili internazionali e bilancio delle imprese di*

- assicurazione. La valutazione dei contratti assicurativi sulla vita nell'ambito della fase II del progetto insurance*, I.S.U. Università Cattolica, Milano.
- Gaver J.J. & Paterson J.S. 2000, 'Earning management under changing regulatory regimes: state accreditation in the insurance industry', *Journal of Accounting and Public Policy*, vol. 19, no. 4-5, pp. 399-420.
- Healy P. & Wahlen J. 1999, 'A review of the earnings management literature and its implications for standard setting', *Accounting Horizons*, vol. 13, pp. 365-383.
- Holthausen R.H. & Watts R.L. 2001, 'The Relevance of the Value-relevance Literature for Financial Accounting Standard Setting', *Journal of Accounting and Economics*, vol. 31, pp. 3-75.
- Kim H. & Lee S.-Y. 2003, 'Discretionary Accounting for Loss Reserves in the Korean Property-Casualty Insurance Industry', *Seoul Journal of Business*, vol. 9, no. 1, December.
- Kimbrough M.D. 2007, 'Do Investors Rely on Purchase Price Allocation Disclosures?', *paper*, May.
- Muller K.A. 1999, 'An Examination of the Voluntary Recognition of Acquired Brand Names in the United Kingdom', *Journal of Accounting and Economics*, vol. 26, pp. 179-191.
- Petroni K.R., Ryan S.G. & Wahlen J.M. 2000, 'Discretionary and Non-Discretionary Revisions of Loss Reserves by Property-Casualty Insurers: Differential Implications for Future Profitability, Risk and Market Value', *Review of Accounting Studies*, vol. 5, no. 3, pp. 95-125.
- Ramanna K. 2006, 'The Implication of Fair-value Accounting: Evidence from the Political Economy of Goodwill Accounting', *working paper*, MIT, September 20.
- Ramanna K. & Watts R.L. 2009, 'Evidence from goodwill non-impairments on the effects of using unverifiable estimates in financial reporting', *working paper 09-106*, Harvard Business School –, March 17 (first draft January 15, 2007).
- Stacchezzini R. 2007, *Il modello di bilancio assicurativo Ias/Ifrs. Prospettive di evoluzione*, Franco Angeli, Milano.
- Watts R.L. 2003, 'Conservatism in Accounting. Part I: Explanations and Implications', *Accounting Horizon*, vol. 17, no. 3, pp. 207-222.
- Zhang I. & Zhang Y. 2007, 'Accounting Discretion and Purchase Price Allocation after Acquisitions', *research paper no. 07-04*, HKUST Business School.