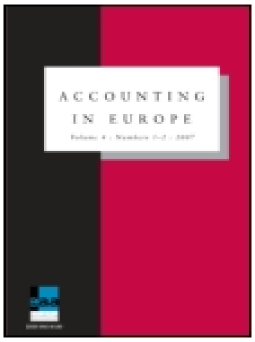

Accounting in Europe

ISSN: 1744-9480 (Print) 1744-9499 (Online) Journal homepage: www.tandfonline.com/journals/raie20

Actuarial Gains and Losses: the Choice of the Accounting Method

Ana Isabel Morais

Accounting in Europe
Vol. 5, No. 2, 127–139, 2008

Actuarial Gains and Losses: the Choice of the Accounting Method

ANA ISABEL MORAIS

ISCTE Business School, Lisboa, Portugal

ABSTRACT IAS 19: Employee Benefits (2004) enables a choice between three accounting methods of recognising actuarial gains and losses: profit or loss, equity and corridor methods. The objective of this paper is to identify the accounting method of actuarial gains and losses followed by companies after the mandatory adoption of International Accounting Standards Board (IASB) standards. Information was collected about that accounting method adopted by 523 European companies, in the first year of mandatory IASB standards adoption. It was found that most of European companies included in the sample adopted the corridor method or the equity recognition method. The results also show that the equity recognition method is more used in the United Kingdom (UK) and Ireland and the corridor method is more used by financial companies.

1. Introduction

In 2002, the European Parliament and the Council issued regulation 1606/2002, which requires publicly listed European companies to adopt International Accounting Standards Board (IASB) standards in the preparation and presentation of consolidated accounts for the periods beginning on or after 1 January 2005. The adoption of the same standards for all listed companies has been seen as an important instrument for achieving more transparent, consistent and comparable financial information at an international level.

However, some International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) allow companies to choose their accounting policies between some alternatives. The existence of different accounting policies for similar transactions or events may decrease the comparability of financial information and creates a potential for managers' opportunistic

Correspondence Address: Ana Isabel Morais, Avenida das Forças Armadas, 1649-026 Lisboa, Portugal. Email: ana.morais@iscte.pt

1744-9480 Print/1744-9499 Online/08/020127–13
DOI: 10.1080/17449480802510534
Published by Routledge Journals, Taylor & Francis Ltd on behalf of the EAA

behaviour. The objective of this paper is to identify the accounting method for actuarial gains and losses on defined benefit plans followed by companies after the mandatory adoption of IAS/IFRS.

IAS 19: Employee Benefits (as revised in 2004), allows companies to adopt a well-aimed strategy. Actuarial gains and losses may result from increases or decreases in either the present value of a defined benefit obligation or the fair value of any related plan assets of defined benefit plans, and IAS 19 enables a choice between three major accounting policies related to the recognition of actuarial gains and losses: profit or loss method, equity recognition method and corridor method.

It seemed useful therefore to see what choices had been made by EU adopters in 2005. Secondly, the accounting treatment of actuarial gains and losses is a complex and controversial issue. The IASB has put a long-term project on employee benefits on its agenda in 2006. Both the IASB and the Financial Accounting Standards Board (FASB) have announced that they will jointly develop a single standard for pension accounting. Additionally, in March 2008, IASB issued a discussion paper about the preliminary views on short term amendments to IAS 19. In this paper, IASB proposed eliminating the deferred recognition of actuarial gains and losses.

Finally, the accounting treatment of actuarial gains and losses under local accounting standards was absent or different among European countries. For all these reasons, it seems that a survey of the choice of accounting policy for actuarial gains and losses may be a useful input to the debate.

The sample consists of 523 European listed companies that were included in STOXX 600 in 2005, that have defined benefit plans and that disclosed information about the method of recognising actuarial gains and losses, and includes Swiss companies as well as those from EU member states.

The structure of the paper is as follows. Section 2 describes the accounting method of recognising actuarial gains and losses before and after the mandatory adoption of IAS/IFRS. Section 3 describes the sample and methodology. Section 4 explains empirical results and, finally, section 5 presents the main conclusions.

2. Actuarial Gains or Losses Accounting Method

2.1. Under Local Accounting Standards

Before 2005, some European countries (such as, Belgium, Denmark, Finland, France, Spain, Italy, Greece, Germany and Switzerland) did not have a specific standard that identified the accounting treatment of actuarial gains and losses of defined benefit plans.

Under Belgian accounting law, pension liabilities arising since 1 January 1986 must be financed in a separate pension fund or with an independent insurance company and companies are exempted from providing information for unfunded pension liabilities arising before that date. The accounting law ('Loi Comptable Générale') required entities to make provision for their liabilities relating to pensions. Since no specific rules exist for pension accounting, periodic pension costs were generally recognised, in practice, on the basis of premiums paid or due, on the assumption that the amount of the premium constitutes an adequate measure of economic cost of the pension plans for the period.

The Danish Financial Statements Act of 2001, which is based on IFRS/IAS as of 2001, refers that pension liabilities should be recognised in the balance sheet and the income statement as provisions. No specific requirements existed for the recognition of actuarial gains or losses. Similarly, in Finland there were no specific requirements on accounting for employee benefits, in general, and for actuarial gains or losses related to defined benefit plans, in particular (Accounting Act 1997, KPL).

Accounting for pensions under French Accounting law ('Plan Comptable Général', Règlement No. 99.03) was largely non-prescriptive, since the only guidance indicated that the amount of commitments of the entity as regards pensions might be recognised, in whole or in part, by way of provision. However, the accounting recognition of provisions, in total, was considered as a preferential method. Similar to France, Spanish accounting law ('Plan General de Contabilidad', Real Decreto 743/1990) was also largely non-prescriptive for pensions, since the only guidance indicated that the cost of pensions includes the accrued charges, estimated on the basis of actuarial calculations, and required to recognise the necessary provision. As a result, many Spanish companies have historically accounted for defined benefit plans on a cash contribution basis. In addition, in Italy no general guidance existed for pensions, since the Italian accounting law only required that the undiscounted vested benefits must be accounted for as a liability (Civil Code and interpretation issued by Italian National Council of Accountants).

Under Greek accounting law (Law 2190/20 and Presidential Decree 186/92), the defined benefit liabilities fell into the definition of provisions and should be recognised in the balance sheet. However, in practice, most companies followed the requirements of the tax law and recognised liabilities only in relation to employees due to retire during the year after the period end.

German accounting rules permitted pension obligations incurred prior to 1 January 1987 to be ignored entirely for balance sheet accrual purposes and disclosed only in the footnotes. There was no specific guidance on accounting for actuarial gains and losses (German Commercial Code, HGB). In practice, actuarial gains or losses were recognised immediately as expense or income. However, since 1998, German companies that are both the parent company of a group and listed on a stock exchange have been able to opt for producing their group accounts according to IAS/IFRS or United States Generally Accepted Accounting Principles (US GAAP). Under Statement of Financial Accounting Standards (SFAS) 87: Employers' Accounting for Pensions (1985)[1] companies can recognise actuarial gains or losses under the corridor method, although faster amortisation is permitted. Similarly, in Switzerland, there was no specific guidance on accounting for actuarial gains and losses. Listed companies can report their consolidated accounts according to internationally accepted accounting standards, such as IAS/IFRS or US GAAP.

However, other countries (such as, Austria, Norway, The Netherlands, Sweden, Portugal, Ireland and the United Kingdom) had standards that identified how the actuarial gains or losses should be recognised in financial statements.

The Austrian Commercial Code has permitted all group companies to prepare their consolidated financial statements according to internationally accepted accounting standards (IAS or US GAAP), since 1999. These financial statements must be prepared in line with the Seventh Directive and the informative value of these accounts must be equivalent to financial statements under the Austrian Commercial Code (HGB). For companies whose consolidated financial statements are not prepared under IAS, the adoption of IAS 19 is possible as long as the Austrian Commercial Code is respected. The Austrian Commercial Code stipulates that the pension accrual has to be estimated according to actuarial calculations and methods. The corridor method does not meet Austrian Commercial Code requirements.

The Norwegian Accounting Act (1998) had no specific measurement or recognition rules for pensions. In 1994, the Norwegian Accounting Standards Board issued NRS 6, that requires the recognition of actuarial gains and losses in profit or loss, systematically over the average period for retirement (recommended), within a shorter time (immediate recognition is accepted) or using the corridor method. The recognition of actuarial gains and losses in equity is not allowed.

Before 2003, Dutch accounting guidelines did not require companies to recognise the defined benefit plans as a liability. With the Dutch GAAP Standard RJ 271 (2003), all actuarial gains and losses were recognised immediately in profit or loss or amortized using the corridor method. Companies cannot recognise actuarial gains or losses directly in equity. Swedish accounting standards board issued RR 29 that is applicable since 2004 for Swedish listed companies. RR 29 is very similar to IAS 19 and allows companies to recognise actuarial gains or losses directly in profit or loss, equity or using the corridor method.

The Portuguese accounting standards board (Comissão de Normalização Contabilística) issued, in 1997, Directriz Contabilística (DC) 19, which requires companies to recognise all actuarial gains and losses in profit or loss.

Finally, in the UK and in Ireland, Financial Reporting Standard (FRS) 17: Retirement Benefits (2000) specifies the accounting treatment for retirement benefits. It replaced SSAP 24: Accounting for Pension Costs (1988) and UITF Abstract 6: Accounting for Post-retirement Benefits Other than Pensions in full for accounting years beginning on or after 2005.[2] SSAP 24 required actuarial gains and losses to be recognised gradually over the service lives of the employee. Contrarily, FRS 17 requires that actuarial gains and losses should be recognised in equity through the statement of total recognised gains and losses. In December 2006, the ASB issued an amendment to FRS 17 which amends only the disclosure requirements required in FRS 17 (Table 1).

2.2. Under IAS/IFRS

IAS 19 defines actuarial gains and losses as increases or decreases in either the present value of a defined benefit obligation or the fair value of any related plan assets of defined benefit plans and allows a choice between three different accounting policies for the recognition of actuarial gains and losses: immediate recognition of actuarial gains and losses in the profit or loss (profit or loss method), or in equity (equity recognition method) and deferred recognition of actuarial gains and losses (corridor method).

Under the profit or loss method, all actuarial gains and losses are recognised in the income statement in the period in which they occurred (Table 2).

The equity recognition method was introduced in 2004 and is similar to FRS 17. Under this method, all actuarial gains and losses are recognised immediately

Table 1. Actuarial gains and losses recognition methods under local accounting standards

Countries	Actuarial gains and losses recognition methods
Austria	Actuarial gains or losses can not be recognised under corridor method except for companies that adopt IAS/IFRS (Austrian Commercial Code).
Belgium	No specific requirements exist.
Denmark	No specific requirements exist.
Finland	No specific requirements exist.
France	No specific requirements exist.
Germany	No specific requirements exist.
Greece	No specific requirements exist.
Ireland	Actuarial gains and losses are recognised immediately in the statement of total recognised gains and losses and not recycled into the profit or loss account in subsequent periods (FRS 17).
Italy	No specific requirements exist.
Netherlands	All actuarial gains and losses are recognised immediately in profit or loss or amortized using the corridor method (RJ 271).
Norway	Actuarial gains and losses should be recognised in profit or loss systematically over the average period to retirement, within a shorter time, immediately or using the corridor method. The equity method is not allowed (NRS 6).
Portugal	All actuarial gains and losses are recognised in profit or loss (DC 19).
Spain	No specific requirements exist.
Sweden	Since 2004, actuarial gains and losses can be recognised in profit or loss, in equity or through the corridor method (RR 29).
Switzerland	No specific requirements exist.
UK	Actuarial gains and losses are recognised immediately in the statement of total recognised gains and losses and not recycled into the profit or loss account in subsequent periods (FRS 17).

Table 2. Actuarial gains and losses recognition method

	Equity recognition method	Corridor Method	Profit or loss method
If URAGL = 0	Liabilities = PVDBO − FVPA	Liabilities = PVDBO − FVPA + AG − AL	Liabilities = PVDBO − FVPA
	Equity = AG − AL	Profit = 0	Profit = AG − AL
If URAGL ≠ 0		Liabilities = PVDBO − FVPA + URAGL + AG − AL − RAGL	
		Profit = RAGL	

PVDBO is the present value of defined benefit plans; FVPA is the fair value of plan assets; URAGL is the unrecognised actuarial gains or losses; RAGL is the recognised actuarial gains or losses; AG is the actuarial gains and AL is the actuarial losses.

outside profit or loss. The amount has to be presented separately within a statement of recognised income and expense (IAS 19, §93B). Actuarial gains and losses recognised in equity are not recycled into the profit or loss account in subsequent periods (Table 2).

Under the corridor method, only the accumulated actuarial gains and losses that exceed a predetermined level (corridor) have to be recognised in profit or loss. The portion of actuarial gains and losses to be recognised in profit or loss is the 'excess' divided by the expected average remaining working lives of the employees participating in the plan. The 'excess' is determined by the difference between the net cumulative unrecognised actuarial gains and losses and the greatest of 10% of the present value of defined benefit obligation and 10% of the fair value of plan assets. The portion of actuarial gains and losses not recognised in profit or loss is recognised as a liability, in the balance sheet (Table 2). The corridor method has been justified by the fact that the long periods for which defined benefit plans are held gives the opportunity for some actuarial gains or losses to reverse or offset each other.

3. Research Design

3.1. Sample Selection

The sample consists of 523 European listed companies that were included in the STOXX 600 in 2005 and that adopt mandatory IASB standards for the first time.

Table 3, Panel A, shows descriptive statistics for the sample companies in terms of country representation. Of the total of companies, 30 companies were excluded because those companies did not present their financial statements reports based on IAS/IFRS. A further 25 companies were excluded because of

Table 3. Companies included in the sample

Panel A: Number of companies included in the sample

Countries	Companies	Other GAAP	Missing information	Without defined plans	Total	%
Austria	11		2	1	8	1.53%
Belgium	12			1	11	2.10%
Denmark	15		2		13	2.49%
Finland	19		1		18	3.44%
France	74	1	2		71	13.58%
Germany	58	7	1	2	48	9.18%
Greece	11	1	1		9	1.72%
Ireland	14		1		13	2.49%
Italy	39	3	2	1	33	6.31%
Netherlands	29	2			27	5.16%
Norway	15	3			12	2.29%
Others[3]	4			1	3	0.56%
Portugal	7				7	1.34%
Spain	40	1	7	10	22	4.21%
Sweden	38	1	1	2	34	6.50%
Switzerland	40	8	1		31	5.93%
UK	174	3	4	4	163	31.17%
Total	600	30	25	22	523	100.00%

Panel B: Industry analysis

Countries	Financial sector	%	Non-Financial sector	%	Total
Austria	2	25.00%	6	75.00%	8
Belgium	3	27.27%	8	72.73%	11
Denmark	2	15.38%	11	84.62%	13
Finland	2	11.11%	16	88.89%	18
France	13	18.31%	58	81.69%	71
Germany	8	16.67%	40	83.33%	48
Greece	3	33.33%	6	66.67%	9
Ireland	4	30.77%	9	69.23%	13
Italy	14	42.42%	19	57.58%	33
Netherlands	6	22.22%	21	77.78%	27
Norway	2	18.18%	10	81.82%	12
Others	2	50.00%	1	50.00%	3
Portugal	3	42.86%	4	57.14%	7
Spain	9	40.91%	13	59.09%	22
Sweden	9	26.47%	25	73.53%	34
Switzerland	8	25.81%	23	74.19%	31
UK	38	23.31%	125	76.69%	163
Total	128	24.47%	395	75.53%	523

missing information. Finally, 22 companies were excluded because those companies did not have defined benefit plans. Consequently, the number of sample companies was reduced from 600 to 523. In terms of country representation, the highest concentration was companies from the UK (31.17%).

Table 3, Panel B, shows representation by industry, in particular the number of financial companies and non-financial companies. The sample comprises 128 companies from the financial sector (24.47%) and 395 companies from other sectors (75.53%). The industry classification shows that most of the companies are from the non-financial sector.

3.2. Methodology

The objective of this study is to identify the accounting method of recognising actuarial gains and losses followed by some European companies in the first year of mandatory adoption of IAS/IFRS.

To accomplish this goal, I first manually collected information about post-employment benefits from the first annual reports under IFRS/IAS available on the companies' websites as well as on the website of Euroland (www.euroland.com).

I examined the Notes to the financial statements in order to identify whether the company has defined benefit plans and, in that case, which accounting method of recognising actuarial gains and losses was adopted. If companies did not have defined benefit plans or did not disclose information about the methods of recognising actuarial gains and losses, they were excluded from the sample.

4. Results

Table 4, Panel A, shows the number of companies that adopted the equity method, the corridor method and the profit or loss method, total and per country. The corridor method is the most adopted method by companies (48.95%), followed by the equity recognition method (44.36%). The profit or loss method is the less used method (6.69%).

The analysis of the actuarial gains and losses accounting policy by country shows that almost all the countries have a stronger adoption of the corridor method except for Ireland, Portugal and the UK. Indeed, if the UK and Ireland are held out from the sample, the corridor method is chosen by 69.45% of companies, equity recognition by 21.61% and the profit and loss method by 8.93% of the reduced sample.

There may be two reasons for the UK and Irish companies to adopt more the equity recognition method than the other methods of recognising actuarial gains and losses. First, IASB standards are developed in environments where accounting practices are especially directed towards the private sector, where reporting rules are largely unaffected by taxation requirements and where capital is traditionally raised in public markets. IASB standards are clearly influenced by common-law countries, like the US and the UK. In particular, the equity

Table 4. Actuarial gains and losses accounting method

Panel A: Actuarial gains and losses accounting method, per country

Countries	Equity Recn	Corridor	Profit or loss	Total
Austria	2	5	1	8
Belgium	2	8	1	11
Denmark	6	7	0	13
Finland	1	17	0	18
France	17	50	4	71
Germany	15	30	3	48
Greece	0	8	1	9
Ireland	11	2	0	13
Italy	6	20	7	33
Netherlands	6	20	1	27
Norway	4	8	0	12
Others	0	3	0	3
Portugal	4	3	0	7
Spain	4	11	7	22
Sweden	4	24	6	34
Switzerland	4	27	0	31
UK	146	13	4	163
Total	232	256	35	523
%	44.36%	48.95%	6.69%	100%

Panel B: Actuarial gains and losses accounting method, per industry

Industry	Equity Recn	Corridor	Profit or loss	Total
Financial	40	70	18	128
Non-financial	192	186	17	395
Total	232	256	35	523

recognition method proposed under IAS 19 was introduced in 2004 and was based on UK FRS 17. Therefore, it may be expected that the UK and Irish companies would tend to maintain the accounting method of recognising actuarial gains and losses and would not change from the equity recognition method to the profit or loss method or the corridor method, although in Germany there was little sign of a preference for taking gains and losses to profit and loss. Second, La Porta *et al.* (1998) showed that the index of private and public enforcement is higher for the UK than for other European countries. Additionally, these authors also showed that the creditor rights and shareholders rights tend to be higher in the UK than in other European countries. This may be an incentive for companies not to change the method of recognizing actuarial gains and losses.

Table 4, Panel B, shows the number of financial and non-financial companies that adopted the equity recognition method, the corridor method and the profit or loss method. The analysis of the actuarial gains and losses accounting policy by industry shows that the majority (54.69%) of financial companies adopted the

Table 5. Descriptive statistics

Variable	N	Mean	Standard deviation	Median	Minimum	Maximum
All	523					
MVE		13 613 119.53	26 304 768.88	5 274 711.07	9388.00	268 534 300.00
NI		924 308.67	2 569 835.40	338 000.00	−31774641.36	24 740 000.00
TA		60 812 192.08	193 389 074.09	7 014 700.00	0.00	1 471 982 000.00
TD		19 235 777.54	80 117 877.98	1 814 592.13	0.00	1015914000.00
TDTA		0.06	0.06	0.05	−0.17	0.48
NITA		0.27	0.17	0.26	0.00	0.84
Equity method	232					
MVE		12 262 224.41	23 792 733.20	4 259 669.00	9 388.00	177 098 483.16
NI		723 168.03	2 830 329.53	308 476.15	−31 774 641.36	17 901 774.53
TA		37 744 715.47	134 543 278.05	5 546 177.34	92 191.21	1 267 898 727.94
TD		9 685 526.93	38 392 118.02	1 642 057.90	0.00	335 264 022.72
TDTA		0.07	0.07	0.06	−0.17	0.35
NITA		0.29	0.18	0.27	0.00	0.80

(*Table continued*)

Table 5. Continued

Variable	N	Mean	Standard deviation	Median	Minimum	Maximum
Corridor method	256					
MVE		15 873 966.48	29 687 290.56	6 222 929.00	38 537.00	268 534 300.00
NI		1 162 516.49	2 462 241.40	414 981.35	-865 000.00	24 740 000.00
TA		87 214 571.64	241 804 822.30	9 432 604.50	0.00	1 471 982 000.00
TD		29 781 938.40	107 584 974.18	1 964 737.85	0.00	1 015 914 000.00
TDTA		0.06	0.06	0.05	−0.09	0.48
NITA		0.26	0.16	0.24	0.00	0.85
Profit or loss method	35					
MVE		6 204 229.35	8 526 955.74	3 433 558.50	397 484.00	47 406 135.00
NI		521 038.81	912 490.75	239 978.00	−124 833.00	4 659 089.34
TA		21 078 245.62	51 009 414.73	4 458 006.00	793 261.45	298 368 938.88
TD		5 521 630.62	10 455 543.68	1 225 616.77	0.00	51 958 000.00
TDTA		0.07	0.07	0.04	−0.05	0.27
NITA		0.27	0.20	0.21	0.00	0.64

Sample includes 523 European companies listed in STOXX 600. MVE is the market value of equity; NI is net income; TA is total assets; TD is total debt; TDTA is the ratio total debt/total assets; NITA is the ratio net income/total assets. Amounts in€.

corridor method. On the other hand, non-financial companies tended to adopt either the equity recognition method (48.61%) or the corridor method (47.09%).

Previous studies suggest that sector is a significant determinant in the choice of accounting methods (McLeay and Jaafar, 2007; Meek *et al.*, 1995 and Cooke, 1992). Financial institutions are entities that are more regulated than companies from other sectors and regulations based on financial reporting numbers potentially impose additional contracting costs on companies subject to the regulations, beyond those experienced by non-regulated companies. Ramesh and Revsine (2000) found that banks' choice of accounting method for other post-retirement employee benefits is consistent with an attempt to balance the increased regulatory costs with earnings management benefits. Financial institutions are more likely to adopt the accounting method of recognising actuarial gains and losses that improves the regulatory capital adequacy, i.e. the corridor method, since this method allows a great stability in the value of liabilities and profit or loss.

Table 5 provides descriptive statistics for the sample. Companies that adopt the corridor method of recognising actuarial gains and losses tend to be larger companies, with lower leverage and showing less profitabilty in terms of the level of income. In contrast, companies that adopt the equity recognition method tend to have higher ratio of net income/total assets.

5. Conclusion

This paper provides empirical evidence of the accounting policies for recognizing actuarial gains and losses followed by European companies in the first year that IAS/IFRS became mandatory in Europe, based on a sample of 523 European companies listed in STOXX 600.

I found that the UK and Irish companies tended to adopt the equity recognition method. This is consistent with the fact that the equity approach is based on UK FRS 17. This suggests that the UK and Irish companies did not change their method of recognizing actuarial gains and losses. I also found that financial entities tend to adopt the corridor method while non-financial entities tend to adopt the corridor method and the equity recognition method.

Consistent with previous studies (Cairns, 2000; Street *et al.*, 1999; Street and Bryant, 2000; Bradshaw and Miller, 2002 and Ball *et al.*, 2003), this study confirms that financial information cannot be entirely comparable, although companies apply the same accounting standards. IAS 19 allows us to see quite different accounting policies being chosen by different European companies.

Acknowledgement

The author gratefully acknowledges helpful comments from the participants of the European Accounting Association Congress 2008 in Rotterdam.

Notes

[1]SFAS 87 was reformed in 2006 as a result of FASB's approval of SFAS 158: Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans.

[2]FRS 17 either in voluntary adoption or by disclosure in accordance with transitional arrangements is in force since 2001.

[3]Others include one company from Luxembourg and two companies from Iceland.

References

Ball, R., Robin, A. and Wu, J. S. (2003) Incentives versus standards: properties of accounting income in four East Asian countries, *Journal of Accounting and Economics*, 36(1–3), pp. 235–270.

Bradshaw, M. T. and Miller, G. S. (2002) Are detailed accounting standards sufficient to ensure compliance? Evidence from non-US firms adopting USGAAP. Working Paper.

Cairns, D. (2000) *International Accounting Standards Survey 2000*, David Cairns.

Cooke, T. E. (1992) The impact of size, stock market listing and industry type on disclosure in the Annual Reports of Japanese listed corporations, *Accounting and Business Review*, 22(87), pp. 229–237.

LaPorta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (1998) Law and finance, *Journal of Political Economy*, 106, pp. 1113–1150.

McLeay, S. J. and Jaafar, A. (2007) Country effects and sector effects on the harmonization of accounting policy choice, *Abacus*, 43(2), pp. 156–189.

Meek, G. K., Roberts, C. B. and Gray, S. J. (1995) Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations, *Journal of International Business Studies*, 26(3), pp. 555–572.

Ramesh, K. and Revsine, L. (2000) The effects of regulatory and contracting costs on banks' choice of accounting method for other postretirement employee benefits, *Journal of Accounting and Economics*, 30(2), pp. 159–186.

Street, D. L. and Bryant, S. M. (2000) Disclosure level and compliance with IASs: a comparison of compliance with and without US listings and filings, *The International Journal of Accounting*, 35(3), pp. 305–329.

Street, D. L., Gray, S. J. and Bryant, S. M. (1999) Acceptance and observance of international accounting standards: an empirical study of companies claiming to comply with IASs, *The International Journal of Accounting*, 34(1), pp. 11–48.