# An Analysis of Financial Statement Coherence and Audit Firm Quality Differences: Some Remarks

by W. BUIJINK\*

## I. INTRODUCTION.

Weets and Jegers (2000) contribute to a growing literature that investigates the quality of audit firms.

Auditing of financial statements is a service, called audit, that is sold by audit firms. Their clients are firms that produce annual, semi-annual or quarterly financial statements. Audits are performed or supervised by qualified professionals: auditors. Auditors work as audit firms, either alone or in cooperation with other auditors. The audit firm's task is to verify, as an independent party, the contents of the set of financial statements of a client firm. Verification by the audit firm leads to an audit firm's opinion that is attached to the financial statements of the client firm that are sent to the shareholders of the client firm and to other interested parties. Broadly speaking the audit firm's opinion about a client firm financial statement can be favorable (unqualified, in more guarded language) or unfavorable (qualified)<sup>1</sup>.

Microeconomic agency theory has extensively been used to explain the existence of a demand for independent third party auditing of the financial statements prepared by managers of firms. Both the actions of these managers and the preparation of their 'report card', the financial statements, are difficult to observe by the shareholders (and other stakeholders) in cases where there is seperation of

<sup>\*</sup> MARC, Faculty of Economics and Business Administration, Universiteit Maastricht, The Netherlands.

This note was written when the author was a visiting professor at the Faculty of Applied Economics, UFSIA, Universiteit Antwerpen.

ownership and management. Independent auditing is predicted to exist because it provides a remedy for this problem. An recent empirical test of an agency theory based explanation of demand for auditing is DeFond (1992).

This description of auditing quite naturally shows that the value of an audit firm's opinion to users of the opinion, i.e. its quality, depends on (i) the technical competence of the audit firm and (2) and the independence of the audit firm vis-à-vis the client firm's managers. This characterization of audit quality, as Weets and Jegers point out, is due to DeAngelo (1981).

The literature that Weets and Jegers contribute to, investigates empirically in many different ways whether and why differences in audit quality in competence and/or independence, exist between audit firms. These investigations, including that of Weets and Jegers, can be motivated in two ways. First, professional auditor association tend to posit that audit quality is uniform<sup>2</sup>. Second, economic analysis of the audit market predicts that both seen from the supply side and the demand side of that market, audit and audit firm quality differences will exist. Research into audit quality and audit firm quality differences basically tests both ideas.

In the next section I will discuss, in a bit more detail then Weets and Jegers do, empirical measurement of audit firm audit quality differences. I will point out some possibilities for further research in this area and also address the importance of this kind of research for financial statements based research, i.e. empirical financial accounting, research.

In a third section I will discuss Weets and Jegers and suggest some possible extensions of their research in the Belgian institutional context.

# II. SOME REMARKS ABOUT RESEARCH INTO AUDIT QUALITY DIFFERENCES BETWEEN AUDIT FIRMS.

How can an *outside* researcher empirically infer audit quality differences between audit firms? I will devote some space to the direct route of observing the quality of audits on the basis of audit working papers inside audit firms below.

A number of approaches have been used: (a) audit pricing studies, (b) audit firm selection studies, (c) consequences studies, (d) characteristics of audit firm studies.

- a) The initial audit pricing study is Simunic (1980) who found that in a United States sample of client firms, and keeping constant the 'complexity' of the audit, one of the large audit firms, Price Waterhouse, enjoyed higher audit fees<sup>3</sup>. The most detailed recent audit pricing study, using Simunic's methodology, is Crasswell, Francis and Taylor (1995) who for 1987 for Australian client firms found evidence of on average 30% higher fees for the international Big-6 audit firms (now Big-5, B5, I will use B5 in what follows). Given the logic of the empirical tests they use, this provides compelling evidence for an audit quality fee premium for B5 audit firms. Craswell, Francis and Taylor (1995) also find a seperate audit quality fee premium for audit firms that specialize (industry specialization).
- b) Audit firm selection studies attempt to detect a demand for higher quality B5 audits in 'difficult' situations. For instance, Francis and Wilson (1988) found that US firms switching to B5 audit firms tended to have experienced increases in agency costs in the years prior to the switch. This can be interpreted as a increase in the demand for the competence and the independence of B6 audit firms in firms with increased agency costs. In a different context, client firms contemplating a stock market listing (an Initial Public Offering (IPO) of shares) have been found to attempt to avoid the IPO underpricing problem using the services of a B5 audit firm, thus signalling the quality of the financial information in their prospectuses.
- c) Consequences studies of audit firm quality differences attempt to infer quality differences between audit firms from consequences. They have looked at litigation rates (lower for B5 audit firms in the USA (Palmrose (1988)); at quality of client firm earnings forecasts (higher for B5 clients in Canada (Davidson and Neu (1993)); at qualified auditor opinion (see earlier) rates (higher for B5 audit firms (see e.g. Vanstraelen (2000) chapter 6) for Belgian evidence); and at stock market reactions to client firm earnings surprises (higher for B5 client firms in the USA (Teoh and Wong (1993)). The most recent form of consequences studies are those that look at earnings management (less present in B5 client firm financial statements (see Francis, Maydew and Sparks (1999) for US results). The results of Weets and Jegers on

financial statement quality in relation to audit firm quality are a contribution to this branch of the literature.

d) Characteristics of audit firm studies of audit firm quality differences investigate causes of quality differences between large and smaller audit firms: Meuwissen ((1999), chapter 3) finds that between-audit firm auditor job mobility is far more prevalent in the Netherlands from large to small audit firms then vice-versa. One interpretation of this is that large firms hire higher quality auditors. Maijoor et. al (1993) document that client portfolio concentration decreases with audit firm size for Belgian audit firms. This makes larger audit firms more independent. Simunic (1984) is an early study investigating the effect of audit firms also providing Management Advisory Services to the same clients they audit. This is a potential threat to independence and may cause differences in audit quality between audit firms. Simunic suggests, guardedly, that his empirical results for US firms do not confirm this threat. Lennox (1999) is a recent study using UK data confirming Simunic's result.

All these examples show that there are already quite a few audit firm quality differences research results available, although relatively few using European data. One particularly interesting way forward in this literature would be to attempt to find out how quality management inside audit firms actually works. At a basic level this would the study of management control within audit firms. For instance, how do the higher quality B5 audit firms hire, train and retain high quality auditors. Meuwissen's (1999) results provide some insight, but only at an aggregate level. Real opportunities here lie in a study of management control inside audit firms. For instance, Mock and Wright (1999) study working papers of a series of audits inside a large US audit firm to see if differences in client risk levels affect the way an audit is carried out, which you would expect<sup>4</sup>. Audit quality differences between audit firms result must ultimately arise from management control differences between audit firms. Weets and Jegers note this as well in their concluding section.

Another interesting way forward in Europe would be to exploit the diversity of contexts in which auditing of financial statements takes place within the European Union (EU) (see Buijink et.al. (1996))). This would require research into quality level differences between

audit firms in EU member states. An example: are opportunities for earnings management or residual errors in financial statements, ceteris paribus, fewer in EU countries that have mulitiple-auditor arrangements (e.g. France) or mandatory auditor rotation (e.g. Italy).

Also, what is becoming apparent is that the audit quality results are relevant for large areas of empirical financial accounting research which looks into the questions of the value relevance of financial statements to shareholders (markets based financial accounting research, see Kothari (2000) for an extensive recent overview) and of earnings management (see Healy and Wahlen (1999) for a recent overview). Since audit firm quality has been shown to affect the quality of financial statements it obviously needs to be controlled for in the typical pooled-cross section empirical tests performed in the value relevance and earnings management literatures. Here we see an interesting convergence of two strands in accounting/auditing research.

Finally, it is difficult to underestimate the important policy role of research into audit firm quality and its determinants. Audit firm quality is an key feature of the regulation of the world's financial systems. This was amply demonstrated in the recent financial 'Asia' crisis.

# III. SOME REMARKS ON WEETS AND JEGERS.

Weets and Jegers measure audit firm quality differences in Belgium between Big-8 (B8) and non-B8 firms by looking at arithmetical and logical errors in the published financial statements of client firms. Their data are for 1989, before the recent waves of audit firm mergers, hence the use of B8. Their main empirical findings are for 1429 large (on the basis of Belgian accounting law) Belgian non-financial client firms in 1989 that received an unqualified auditor opinion. To present results for firms with an unqualified auditor opinion makes sense. It removes one obvious confounding variable, auditor opinion status. Note however, and this is somewhat confusing, that the descriptive results are for all 1720 client firms, including those that received a qualified opinion.

Weets and Jegers find an intrigueing pattern of error rates that depends on audit firm status and audit firm size. This is shown in Table 6. Audit firm category affects the error rates in client firm financial statements with B8<sup>5</sup> audited financial statements containing fewer errors and small and one-person Belgian audit firms audited financial statements containing more errors. Financial statements of client firms of large non-B8 Belgian audit firms show an intermediate error rate. Interestingly, Weets and Jegers also find, similar to Simunic (1980), that within the B8 audit firm group there are differences in error rates in client firm financial statements. In section 6 they test their descriptive results formally for the 1429 client firms that received an unqualified results. The results of their tests basically confirm the descriptive results. Acknowledging that error rates for the 1429 client firms may also be caused by characteristics of these firms other than their choice of auditor, they investigate the effect of audit firm (B8 vs. non-B8) on client firm error rate, controlling for a number of client firm financial characteristics. Again, the result is that B8 audit firm client firms tend to have fewer remaining errors in their financial statements (see Table 13) then non-B8 audit firm client firms.

Earlier in their paper they also plausibly suggest that differences in client firm risk and client firm status (subsidiary or not) can affect financial statements error rates. It is puzzling that these factors are not also used as controls in the regression analysis in Table 13.

Weets and Jegers suggest a number of extensions to their research in section VI. One area of potential extensions they do not suggest is to investigate the effects of forms of audit firm regulations specific to Belgium. For instance, it would already have been possible in the current paper to look at Belgium's fixed 3-year auditor mandates. Multi-year auditor mandates are expected by the regulators to create more audit firm independence and hence higher audit firm quality. However multi-year auditor mandates have a 'final-year' problem in which independence may in fact be weakened for fear of losing the mandate for the next three years. Weets and Jegers could have tested this by partitioning the 1429 client firms into first, second and third mandate-years and comparing the financial statement error rates between these groups across audit firm categories. A plausible prediction is that the 'final year' problem is less important for B8 audit firms. A test of this prediction would also immediately have made the paper more interesting for non-Belgian audiences wanting to know more about the effects of the various possible forms of audit firm quality regulation. Another research opportunity that is specific to the Belgian context would be to compare the audit quality of the

separate, specialized, category of bank auditors with the quality of non-bank audit firms, in the spirit of Craswell, Francis and Taylor's results on auditor specialization.

In all, Weets and Jegers make an interesting contribution to audit firm quality research. Few results exist for Belgium so far, as indeed for other European countries. Moreover, Weets and Jegers use an novel measure of audit firm quality. It could also be used in other countries in the EU that have a uniform chart of accounts, e.g. France.

#### NOTES

- 1. In insightful introduction (in Dutch, against the Belgian institutional background) to auditing is De Beelde (1994).
- 2. Of course the professional bodies recognize that audit firm independence and competence are not automatic. They for instance have regulation preventing one client from dominating a client portfolio and they prescribe audit procedures in detail in the form of Generally Accepted Auditing Standards (GAAS). So their position is better phrased as, 'audit quality differences between audit firms do not exist given the internal regulations in place'. Note that audit firms can elect, and do so given the research results discussed below, to audit at a higher quality level then that of GAAS.
- 3. Simunic also found that small client firms in his sample who could have switched to one of the other large audit firms and also to smaller audit firm, paid higher fees for a PW audit. He therefore concluded that the higher PW fees were not a consequence of market dominance.
- 4. Ironically, and unexpectedly, Mock and Wright find that audit plans, they look at the auditing of receivables, do not appear to be much affected by differences in client risk characteristics. This is a puzzling result.
- Note that these Belgian B8 audit firm were not necessarily the largest audit firms in Belgium in 1989. Their distinguishing feature was membership of international B8 audit firm networks.

### REFERENCES

- Buijink, W., S. Maijoor, R. Meuwissen, A. van Witteloostuijn,, 1996, The Role, Position and Liability of the Statutory Auditor within the European Union, (Office for Official Publications of the European Communities, Luxemburg).
- Craswell, A., J. Francis, S. Taylor, 1995, Auditor Brand Name Reputations and Industry Specializations, *Journal of Accounting and Economics* 20, 297-322.
- Davidson, R., D. Neu, 1993, A Note on the Association Between Audit Firm Size and Audit Quality, Contemporary Accounting Research 9, 479-488.
- DeAngelo, L., 1981, Auditor Independence, 'Low Balling', and Disclosure Regulation,

  Journal of Accounting and Economics 3, 113-127.
- De Beelde, I, 1994, Accountants Controle, (Academia Press, Gent).
- DeFond, M., 1992, The Association Between Changes in Client Firm Agency Costs and Auditor Switching, Auditing: a Journal of Practice and Theory 11, 16-31.
- Francis, J., E. Maydew, C. Sparks, 1999, The Role of Big 6 Auditors in the Credible Reporting of Accruals, Auditing: a Journal of Theory and Practice 18, 17-34.

- Francis, J., E. Wilson, 1988, Auditor Changes: a Joint Test of Theories Relating to Agency Costs and Auditor Differentiation, *Accounting Review* 58, 663-682.
- Healy, P., J. Wahlen, 1999, A Review of the Earnings Management Literature and its Implications for Standard Setting, *Accounting Horizons* 13, 365-383.
- Kothari, S., 2000, Capital Markets Research in Accounting, paper presented at the Journal of Accounting and Economics Conference, April 28-29.
- Lennox, C., 1999, Non-Audit Fees, Disclosure and Audit Quality, European Accounting Review 8, 239-252.
- Maijoor, S., R. Meuwissen, W. Buijink, 1993, Audit Firm Size, Client Portfolio Structure and Audit Firm Quality, working paper., (MARC, Universiteit Maastricht).
- Meuwissen, R., 1999, The Economics of Auditor Careers and Audit Markets, doctoral dissertation, (Universitaire Pers Maastricht, Maastricht).
- Mock, T., A. Wright, 1999, Are Audit Program Plans Risk-Adjusted?, Auditing: a Journal of Theory and Practice 18, 55-74.
- Palmrose, S., 1988, An Analysis of Auditor Litigation and Audit Service Quality, Accounting Review 63, 55-73.
- Simunic, D., 1980, The Pricing of Audit Services: Theory and Evidence, Journal of Accounting Research 18, 161-190.
- Simunic, D., 1984, Auditing, Consulting and Auditor Independence, *Journal of Accounting and Economics* 22, 679-702.
- Teoh, S., T.Wong, 1993, Perceived Auditor Quality and the Earnings Response Coefficient, Accounting Review 68, 346-366.
- Vanstraelen, A., 2000, The Audito's Going-Concern Opinion: an Economic Analysis of the Decision-Making Process, doctoral dissertation, (Universiteit Antwerpen (UFSIA, Faculteit TEW)).
- Weets, V., M.Jegers, 2000, The Financial Statement's Coherence as a Direct Test of Audit Quality Differences, Tijdschrift voor Economie en Management 45, 3, 63-82.