

**Auditors' Going Concern Reporting before Bankruptcy –
A Study of Bankrupt Companies in Denmark, Finland, Norway and
Sweden**

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1. INTRODUCTION

Efforts to harmonize accounting and auditing standards continue to increase and awareness of differences has led in recent decades to significant attempts to reduce them. Much emphasis has been placed on the benefits of having similar rules across countries and harmonization is supported as a means to improve comparability among financial statements across border, which will make easier the expansion of financial markets (Schweikart et al. 1996; Zarzeski 1996; Martin 2000). Consequently, the users of financial information need to be able to understand the financial statements of foreign companies whose shares they might buy.

However, there is long-standing argument that the similarity of standards and rules does not necessarily ensure that financial reporting and disclosure results are similar as well (Needles 1989; Martin 2000). That is, differences might exist in implementation of similar standards across countries and this might lead to different practice. Going concern reporting is one example where the auditing standards seem to be fairly consistent across countries, but the extant practice might vary (Martin 2000). This study investigates the auditor's going concern reporting before bankruptcy in Denmark, Finland, Norway and Sweden and accordingly, the purpose of the current study is two-fold.

This study examines the Nordic countries in detail by examining harmony within and between Denmark, Finland, Norway and Sweden and the main purpose of the current study is to investigate whether similarity of auditing standards in Nordic countries indicates that the audit practice among the countries is comparable (i.e. similar). Based on the similarities in the auditing standards, users of financial information might assume that similar standards for going concern reporting lead to comparable practices across countries. Furthermore, in order to be able to count on financial information reported by foreign companies, not only is the extent of disclosure important, so is the quality of the audit (Nobes & Parker 2010) and in previous literature audit quality is often related to auditor's

going concern reporting. Bankruptcies not preceded by going concern audit reports are widely viewed as audit failures (Francis 2004) and consequently, audit quality and audit failure rates are negatively correlated. Since this study investigates bankruptcy companies, the second purpose of the current study is to compare the audit practice/quality within and between Nordic countries.

The current paper investigates the Nordic countries in detail by examining auditor's going concern reporting within and between Denmark, Finland, Norway and Sweden. Practices in the Nordic countries have often been classified as a single group (Doupnik and Salter 1995; Aisbitt 2001) and hence, observed differences in going concern reporting are important because financial statement users must be aware that even though auditing standards for going concern reporting are the same among countries, similar going concern reporting (or lack of GC reporting) across countries may not have the same meaning (Martin 2000). In each country the going concern assumption is a fundamental precondition of financial statements and the auditing standards in Denmark, Finland, Norway and Sweden are based on the International Standards of Auditing (ISA) but the countries have developed interpretations of standards and legislation. In sum, the findings of this study assist to get better understanding of auditors' going concern reporting, the quality of auditing and harmonization of auditing across Nordic countries.

The paper is constructed as follows. Next, the paper discusses background of the paper followed by discussing of audit profession in each country. The chapter ends with discussion based on purpose of the current study and expectations for GC reporting differences. Data and descriptive statistics are presented in fourth section and finally, results and conclusions of the current are discussed. In addition, the current study suggests future research to enhance understanding of diverse auditing reporting practices among the Nordic countries.

2. BACKGROUND

ISA 570 stipulates that the auditor should consider the appropriateness of managements' use of the going concern assumption and to evaluate whether there are material uncertainties with respect to entity's ability to continue as a going concern. The time span for evaluating the company's ability to continue as a going concern is the same as for management, i.e. 12 months from the fiscal year end. Regardless of what is stated in the financial statement, the auditor should comment on going concern uncertainty in the audit report. If there is a doubt about firm's ability to continue as a going concern, the auditor's reporting in the audit report depends on the circumstances and ranges from an explanatory paragraph to an adverse opinion. That is, the auditor should issue an unqualified audit report with an emphasis on matter paragraph if the going concern issue has been appropriately dealt with in the financial statement and qualify the audit report when the disclosure is inadequate.

2.1. Country-specific going concern requirements

As presented in Table 1, the four countries have some adjustments regarding the going concern reporting and these adjustments vary somewhat across Nordic countries. First, Table 1 summarizes adoption of International Standards on Auditing (ISA) in each country and later going concern requirements are presented.

From the Swedish and Norwegian RS 570 (applied at the time of the study) it follows from national adjustments that management is required to make a special assessment and report on the going concern assumption. In addition, there are three other specific Norwegian adjustments: (i) The auditor should evaluate the going concern assumption, even if the entity is not subject to the Accounting Act (Regnskapsloven); (ii) The auditor should comment on whether the information disclosed given on the going concern assumption is in accordance with (national) rules and (iii) In case it is likely that the firm cannot continue its operation, the annual report should give information on how actual (fair) value will be

calculated. The auditor should then comment upon whether the information disclosed is in accordance with (national) rules in the audit report.

Besides reporting on the going concern assumption, management and auditors may give other signals on (serious) financial difficulties to users of audited annual reports. In Sweden, the board of directors should prepare a balance sheet for liquidation purposes (*kontrollbalansräkning*) to be audited in case the firm's own equity could be expected to fall short of half of share capital (Company Act 25:13). If no such action is taken, the auditor should make a remark in the audit report (Company Act 9:33). The auditor will then typically comment upon the following: i) "the firm has lost more than half of its share capital", ii) "the board of directors have not prepared a balance sheet for liquidation purposes which is a violation of the Company Act", iii) "As no balance sheet for liquidation purposes is available, board members are personally responsible for company's liabilities".

In Norway and Denmark, board of directors are required to take measures if the firm could be expected to have lost more than half of shareholder capital or in case own equity is below justifiable risk. Board of directors are also responsible for disclosure of actions taken to ensure the continuation of operation, or alternatively on how to dissolve the company. Furthermore, in Norway the auditor should report on loss of own equity (as a violation of disclosure), but only so in case that insufficient information is given in the annual report (Accountant Act § 5-6, p.3).

In Finland, according to Companies Act a firm should consider liquidation if losses have consumed the retained earnings and paid-in-capital to such an extent that shareholders' equity is less than half of the share capital. When the liquidation warning has been put into operation, the company has one year to fix things and if the shareholders' equity is less than half of the book value of share capital when the restructuring period has passed, the firm should liquidate. Since the liquidation rules in Companies Act, going concern problems might not

be reported separately in the audit report because of the similarities between the liquidation related qualified opinions and going-concern opinions. In essence, these both types of qualified opinions signal that the company might not be able to continue as a going concern (Sundgren 2009). Therefore, the auditor typically include an additional paragraph related to the threat of liquidation if the liquidation warning is about to be triggered. In addition, if the firm refuses to liquidate when the reorganization period has come to an end, the auditor should qualify the part of the opinion paragraph focused on the discharge from liability of the managing director and/or the board of directors. (Aho & Vänskä 1995:123; Sundgren 2009).

In summary, in all four countries the going concern is a fundamental principle in preparation of financial statements and the (national) standard on going concern reporting is similar to ISA 570 in all relevant aspects. However, one noticeable difference between regulation among Nordic countries is that the Accountant Act (*Revisorsloven*) in Norway explicitly state that the auditor should express an opinion on the going concern assumption (§ 5-6, p.4) while this is not the case in corresponding Danish, Finnish or Swedish legislation.

2.2. Prior research

A considerable amount of literature has been published regarding auditor's going concern reporting. However, prior research to date has tended to focus on auditor's going concern reporting in single country rather than comparing auditing standards for going concern uncertainty and their implementation within and between several countries. Only one study exists which adequately focuses on comparison of auditor's going concern reporting practice in several countries. That is, Martin (2000) compares accounting and auditing standards for going concern uncertainty and their implementation across three countries -France, Germany and the U.S -from two different accounting/financial models. In sum, Martin (2000) showed that in spite of country-specific standards were essentially the same across the three countries, the going concern disclosures rates for

U.S. firms were significantly higher, even when controlling for firm-specific characteristics that might be associated with going-concern uncertainty.

In point of fact, there is strong evidence that the going-concern determination is one of the most difficult and complex decisions faced by the auditing profession (Louwers 1998). The role of the auditor is to warn the general public about impending client failures. However, the task to comment upon the going concern assumption goes somewhat beyond the traditional role of the auditor which is to verify historical transactions and check existence of inventory etc. In comparison with other reporting requirements, going concern reporting involves a large degree of subjectivity. The going concern decision can be viewed as a two-stage process (Asare 1992); first a judgment stage in which the auditor forms an initial belief about the client's financial distress or stability. Here the auditor collects and evaluates evidence in the form of ratios, contrary information and mitigating factors, as many different factors may influence the firm's possibility to continue as a going concern. Second, in the decision stage the auditor finally decides on the type of report to issue. Including the going concern opinion requires integrity for several reasons, not at least since it reduces the risk of client survival as well as the risk of auditor switching (Chow and Rice 1982).

The propensity to issue a going concern opinion prior to bankruptcy have been commonly used as an audit quality indicator (e.g., Knechel and Vanstraelen 2007; Robinson 2008; Li 2009). In case of bankruptcy, the going concern opinion provides the general public with accurate information (warning signals) and it demonstrates that the auditor can identify going concern uncertainty and withstand pressure from the client. It is a rather straightforward quality indicator and we can assume that a higher (lower) likelihood of issuing a going concern opinion when a firm subsequently goes bankrupt is an indication of high (low) audit quality (type II error). However, there is also a risk that the auditor issues going concern opinions on firms staying viable (type I error), but we do not analyze this error in this study.

Based on evidence from prior studies it seems as if the propensity to issue going concern opinions varies between time periods and possibly between private and public firms and countries. Geiger and Raghunandan (2002) found that 50 % of U.S public firms had received a going concern opinion immediately before they entered into bankruptcy between 1996 and 1998. Robinson found that the proportion of going concern opinions prior to bankruptcy increased from 52 % in 2001 to 85 % in 2004 for a sample of U.S public firms. The same pattern, suggested as being a consequence of the introduction of SOX, was found in Geiger et al. (2005).¹ Their dataset showed an increase in the proportion of going concern opinions for bankrupt firms from 40 % (in 2000-2001) to 70 % (in 2002-2003). Knechel and Vanstraelen (2007) studied private firms in Belgium and found that 36 % of them received a going concern opinion prior to bankruptcy filing.

Findings indicate that current audit environment is important for auditor reporting behaviour and how standards are applied in extant practice. It is though unknown if and potentially how reporting practice in private firms varies between countries within a (relatively) homogenous region.

Cross national studies on audit quality have shown that quality determinants (i.e. Big 4/non Big 4 audit firm) varies between countries in Europe (Van Tendeloo and Vanstraelen 2008; Maijoor and Vanstraelen 2006). It has been suggested that these differences are related to the degree of tax-book alignment in the specific country as it increases (decreases) incentives for auditors. In countries with high tax alignment, tax authorities partly take on the role of investors in public firms and they scrutinize financial statements to a greater extent (than in countries with low tax alignment). Deficiencies in auditor reporting (on tax issues) are then more likely to be revealed by tax authorities and

¹ SOX do not regulate going concern reporting. However, the audit environment changed following accounting scandals in the beginning of the 21th century and the introduction of SOX imposing in general tougher regulation on auditors which seems to have had an impact also on going concern reporting behaviour.

possibly reported, creating incentives for (high quality) auditors to maintain quality levels in order to keep reputation (and reduce the risk of disciplinary sanctions).

2.3. Purpose of the study

As noted earlier, the current study focuses on auditor's going-concern reporting before bankruptcy in Denmark, Finland, Norway and Sweden. According to Nobes & Parker (2010), the international viewpoint of auditing refers to harmonization of auditing standards and rules across countries as well as referring to the practice of auditing, based on one or more set of auditing rules, of the financial information prepared by multinational corporations. Hence, the main interest of the current paper is to investigate whether similarity of auditing standards within and between Denmark, Finland, Norway and Sweden indicate that the audit practice among the countries is comparable.

Over the last thirty years there have been a number of efforts made by legislators and accounting standard setters to reduce the number of different accounting treatments used to account for particular transactions or balances (harmonization) (Aisbitt 2001). Indeed, attempts of harmonizing accounting and auditing standards continue to increase and much emphasis has been placed on the advantages of having similar rules across countries (Martin 2000). That is, the International Standards on Auditing (ISA) have come a long way since they have been developed and furthermore, European Union Directives have had significant role in the movement towards harmonization. The European Union's regulation concerning the compulsory use of IFRS from 2005 was a major step toward harmonization and the main purpose of IFRS, as posited by the IASB and some commentators, is that users all around the world can better compare company financial statements, so the information risks are reduced (Nobes & Zeff 2008).

However, still there are many serious obstacles to overcome in harmonization of both auditing and accounting standards and Bode (2007) points out cultural,

social, political, legal and economic difficulties in the aspiration of international auditing harmonization. In fact, previous literature has indicated a large list of possible causes to explain why harmonization has not been successful across countries (see e.g. Hussein 1996; Baker & Barbu 2007; Bode 2007). Nobes & Zeff (2008) point out that it is important to distinguish between adoption of standards and convergence with standards. Adoption indicates that international standards are used instead of domestic financial reporting rules and in contrast to adoption; convergence with international standards is a process, whereby domestic standards and international standards are gradually brought into line. Hence, although the EU has for instance brought virtually all of the content of IFRS into force for various purposes, it is not exactly IFRS as issued by the IASB that is required (Nobes & Zeff 2008).

To conclude, it is expected that differences in audit reporting exist as well regarding adoption of ISA and convergence with ISA. That is, ISA standards have been adopted in Nordic countries but still what the rules require might be some national version of ISA. In addition, Martin (2000) argues that going concern uncertainty is a significant example where the prescriptions seem to be fairly consistent across countries, but the extant practice might vary. In all four countries, firms have to be audited by a certified auditor (excluding Finland) that has the necessary skills and knowledge to perform audit but the role of statutory auditor, process of becoming a certified auditor and the status of the profession reflect differences that are rooted in political, historical and economic differences among countries (see e.g. Baker *et al.* 2001; Knechel 2008). Consequently, the paradox that this study investigates is that, even though auditing standards regarding going concern reporting are similar or even identical across Nordic countries, still extant practice might vary.

3. THE AUDIT PROFESSION IN THE NORDIC COUNTRIES

This chapter discusses audit profession in Nordic countries to create the framework for analysis. Each country is separately presented by discussing audit requirements and audit profession. The summary of country-specific audit regulations is presented in Appendix.

3.1. Finland

This section presents auditing regulation in Finland. A pervasive character underlying the regulation of auditing and financial reporting in Finland, as well as in the other Nordic countries, is the principle of transparency of the business firm (Niemi & Sundgren 2008). In Finland, all the firms are required to file their financial statements with the public Register of Companies (Kaupparekisteri). That is, financial statements are publicly available. Partnership and small proprietorships, whose sales, employees, or assets are below a certain size thresholds, are exempted from the requirement to file their financial statements with the public register. In addition, all the firms are required to have their accounts audited if at least two of these circumstances exist: (i) Balance sheet total > 100.000 €; (ii) Net Sales > 200.000 € and (iii) Average no of employees > 3.

In Finland the audit consists of the auditing of the accounting records, the report of the Board of Directors, the financial statements and the governance report of a company. The auditor expresses opinion on the financial statements, as well as on the report of the Board of Directors and on issues of governance and the audit is performed to obtain reasonable assurance about whether the report of the Board of Directors and the financial statements are free of material misstatement.

3.1.1. The profession in Finland

In Finland, there are four different types of auditor that provides auditing services. First, there is a two-tier system of auditor certification and this is similar to other Nordic countries. The first-tier auditors (i.e. KHT-auditors) are approved and supervised by the Central Chamber of Commerce and they have the train-

ing and competence to audit the largest business firms.² Second-tier auditors (i.e. HTM-auditors) are licensed by regional chambers of commerce and they focus on small and medium sized firms. Until new Auditing Act was enacted in 2007 firms were required to have at least one certified auditor with HTM certification if certain size thresholds existed.³ The new Auditing Act came into force in July 2007 and before the reform in legislation, if the firm's size did not exceed the certain size thresholds, the firm was allowed to have an audit by a non-professional auditor. Consequently, a Finnish characteristic are non-certified auditors (i.e. maallikko-auditors), who are not licensed by any regulatory body or organization. In fact, still auditors without a professional certification are operating in Finland since the reform shall be applied to audits no later than financial periods ending on 31 December 2011. However, according to the Finnish Accounting Act, any person providing a statutory audit must have sufficient skills and knowledge to conduct the audit in accordance with good auditing practice. In addition, the legal liability is the same among these four types of auditors. Furthermore, in Finland there are also auditors that are specialized to audit municipal organizations and other not-for-profit entities (JHTT-auditors).

With respect to the auditor certification requirements in Finland, to become qualified auditor, the auditor has to hold higher university degree, complete necessary studies and obtain a minimum of three years' practical experience in demanding activities in the field of auditing and accounting. Requirements for the KHT-auditors are more demanding. For instance, the KHT auditor must get a master's degree while for HTM auditor Bachelor's degree is enough. Moreover, the training and examination requirements are more demanding for KHT auditor.

² The higher KHT qualification is required if two of these circumstances exist: (i) net sales > 50 million €, (ii) the balance sheet total > 25 million € and (iii) the average no of employees > 300.

³ Firms were required to have HTM-auditor if two of these circumstances existed: (i) net sales > 0.68 million €, (ii) the balance sheet total > 0.34 million €, and (iii) the average no of employees > 10.

The number of HTM auditors has been declining since 1990 and at the beginning of 2011 there were 694 HTM auditors and 34 firms of HTM auditors. KHT auditors have a fairly different pattern and since 1980 the number of KHT auditors has been increasing. Furthermore, increasing seems to be continuing since now there are more KHT auditors than HTM auditors. That is in January 2011 there were 745 KHT auditors and 43 firms of KHT auditors.

3.2. Denmark

This section presents the Danish auditing profession and its regulation. In Denmark limited companies are required to file their annual reports with The Commerce and Companies Agency (Erhvervs- og Selskabsstyrelsen) under the Ministry of Economic and Business Affairs. Thus, annual reports including the audit opinion are publicly available. There are around 100,000 limited companies in Denmark. In the past, they have all been subject to statutory auditing, but Denmark has introduced an audit exemption for small limited companies as of 2006 (see appendix 1 for details). The exemption excludes around 75,000 limited companies from the statutory audit⁴, but only around 25% of these have actually chosen to opt out of auditing (Langsted, 2010).

3.2.1. The profession in Denmark

Statutory financial auditing in the private sector is carried out by the two groups of publicly approved accountants, namely state-authorized auditors and registered auditors. The two groups share the statutory auditing jurisdiction by client differentiation; the state-authorized auditors serve large clients, the registered auditors smaller clients, but with some degree of overlap, which at one point caused a jurisdictional dispute between the two groups (Jeppesen & Loft, forthcoming). The two groups of auditors are differentiated mainly by the length of their education, although both groups' education is in compliance with the EU's 8th Directive. Qualifying as a state-authorized auditor requires a master's degree in accounting and auditing followed by a practice period and an entry ex-

⁴ See <http://www.regelforenkling.dk/sw34919.asp>, accessed March 2011.

amination administered by the Danish state (Ibid). Earlier, the registered auditor qualification did not require a university degree, but this has changed. The qualify as a registered auditor now requires the first part of the masters' degree in accounting and auditing (the first year of the masters' program) plus a practice period and an entry examination by the state (Ibid). State-authorized auditors are organized in *Foreningen af Statsautoriserede Revisorer* (FSR) and registered auditors in *Foreningen af Registrerede Revisorer* (FRR), but the two organizations have recently announced a merger (March 2011). State-authorized and registered auditors in practice are required to hold a license (an authorization or a registration) from the Danish state. Approved auditors taking up positions in industry are required to deposit the license with the Danish Commerce and Companies Agency, and are not allowed to use their title as state-authorized or registered auditor. By February 2011, FSR had 2,048 practicing members, in addition to which there are 140 state-authorized auditors in practice who are not members of FSR (membership is not compulsory). The total number of state-authorized auditors in practice is thus 2,188. At the same time FRR had around 2,000 members, the majority of which are in practice.

There are no available figures for the total market for auditing services in Denmark, but the 20 largest audit firms had a total turnover of 8.7 billion DKK in 2010. The figures include audit services as well as non-audit services. The market is dominated by the Big 4⁵, with a combined turnover of around 6.2 billion DKK in 2010. 851 or 38.9% of the practicing state-authorized auditors were employed by a Big 4 firm in 2009.

3.3. Norway

This section presents the Norwegian auditing profession and its regulation. All private and public limited companies, savings banks, mutual insurance companies and petroleum enterprises are required to file their annual report, including the audit report, to The Brønnøysund Register Centre. The Brønnøysund Reg-

⁵ In the Danish 2010 figures BDO is included instead of Ernst & Young, the latter being only number five measured on annual turnover.

ister is a government body under the Norwegian Ministry of Trade and Industry and information stored in the register is publicly available.

In addition to auditing the financial statement, auditors are required to verify proper registration of accounting information by management and sign tax related information. Norway has a long tradition of requiring statutory auditing for all limited companies. However following a recent proposal (Prop. 51L), that is expected to be approved shortly by the Parliament (*Stortinget*), smaller entities that do not meet the following size criteria will be exempted from the audit requirement (In Norwegian Kronor): 5 million in turnover, 20 million in balance sheet total, and 10 employees. These firms may then actively choose not to have audited financial statements starting from the fiscal year of 2011.

3.3.1. The profession in Norway

There are two categories of auditors in Norway, state authorized auditors and approved auditors. There are different requirements in terms of formal education for the two categories of auditors. Approved auditors should have a bachelor degree in auditing, at least three years of relevant practice in auditing and they should pass a “practical test” (Auditing Act, § 3-2, 3-3). The requirement for state authorized auditors is equivalent, but in addition they should have a master degree in Auditing that could be earned at Norwegian School of Management (BI) or Norwegian School of Business and Administration (NHH). In terms of what assignments they can undertake, the difference is that only state authorized auditors can audit firms of public interest.

By the end of 2009 Norway had 2826 state authorized auditors and 3117 approved auditors. However, the number of active auditors with ongoing assignments as engagement partner (*oppdragsansvarlig revisor*), is 1514. The reason for the large differences between number of qualified auditors and engagement partners being that you can keep the title without being actively practicing and many auditors are working outside the audit profession. The number of active

auditors has been increasing slowly from 1382 in 2002 to 1514 in 2009 and they are auditing over 230 000 firms that are required to have audited accounts.

The market of audit services in Norway had a total turnover of 5,4 Billion NOK in 2008 (The Financial Supervisory Authority of Norway 2010). In addition, audit firms received 3.2 Billion NOK (in Euros:) in revenues for providing other services to audit clients and others. Audit firm revenues from audit services and non-audit services increased by approximately 20 % respectively from 2007 to 2008. The market is dominated by the Big 4 with 52,8 % of total revenues from audit services (market share). The Big 4 had 27,4 % of all audit assignments in 2008 which was an increase by 2.5 % from 2006. BDO plays a noticeable important role on the Norwegian audit market. BDO had 9,3 % of all assignments, and received 6,7 % of total revenues earned by audit firms. Based on figures from 2008, the Big 5 audit firms have 88 % of assignments in firms of public interest, and they receive 63,1 % of total revenues reported by the audit firms (including non-audit services).

Of all audit reports issued 2006 in Norway, 84 % were issued without any remarks ("clean audit report"). In 16 % of all reports the auditor deviated from the standard wording and issued a modified report (*forbehold or presiseringer*). This percentage was the same as in 2004.

3.4. Sweden

This section presents the Swedish auditing profession and its regulation. All limited companies, banks and insurance companies are required to file their annual report with Swedish Companies Registration Office (Bolagsverket).

In addition to auditing the financial statement, auditors should also audit the stewardship carried out by CEO and board of directors. The latter duty involves the audit of compliance with law and corporate bylaws. In the audit report the auditor recommend whether or not the CEO and board of directors are granted discharge from liability which is an issue that are subject for voting at the gen-

eral meeting. Since 1983 all limited companies has been required to appoint a qualified auditor. The parliament (*Sveriges Riksdag*) has on the 21st of June 2010 decided to exempt small entities that do not exceed two of the following three size criteria from the audit requirement: a net turnover of 3 million (1 Euro =9.15 SEK, December 13, 2010), a balance sheet total of 1.5 million SEK and an average number of full-time employees of 3. The new rules applies from 1st of November 2010 and firms concerned may then actively choose not to have audited financial statements starting from the fiscal year of 2011.

3.4.1. The profession in Sweden

Auditing in Sweden is conducted by a total of 2233 authorized auditors and 1789 approved auditors. The number of qualified auditors has been relatively stabile over the last decade. In order to be licensed as approved auditor you will need an academic bachelor's degree, three years of practical training under supervision and to pass the examination of professional competence as approved auditor. There are still practicing approved auditors without a written exam that received their approval some time ago. However they are only allowed to audit small entities. The requirement for an authorized auditor is an academic master's degree, in addition to the three years required for an approved auditor, another two years of practical experience and to pass the examination of professional competence as an authorized auditor.

The audit market in Sweden is dominated by the Big 4 audit firms (SOU 2008:32, p.134). Big 4 report revenues of 1.13 billion Euro and employ approximately 57 % of the authorized auditors, and 40 % of the approved auditors.⁶ The total market share for the Big 3 audit firms, PricewaterhouseCoopers, Ernst & Young and KPMG, was 34.4 % in 2003, followed by the next three, Deloitte, Lindebergs Grant Thornton⁷ and SET Revisionsbyrå, with 10.8 % in market share (Sundberg, 2004). The market share for other audit firms corresponded to

⁶ The Big 6 audit firms (including Grant Thornton and BDO) employ 67 % of authorized auditors and 49 % of approved auditors in Sweden.

⁷ Lindeberg Grant Thornton changed name to Grant Thornton in February 2008.

54.8 %. The market share for Big 3 increases gradually with firm size, from 31.3 % in small firms, via 46.9 % in medium sized firms, up to 71.6 % in large firms. Revenues reported by the Big 4 audit firms in 2009 constitute 84 % of all revenues generated by the largest ten audit firms. The market domination by the larger firms is further demonstrated by the fact that 95.3 % of revenues earned by the largest ten audit firms are reported by the Big 6 audit firms (including Grant Thornton and BDO).⁸

Spjut and Ulfhielm (2008) studied 500 randomly selected SMEs in Sweden and found that 64 firms (12,8 %) had a non-standardized audit report. Only four firms (0.8 %) had received a going concern opinion.

4. DATA AND DESCRIPTIVE STATISTICS

4.1. Samples

The data available for the study include financial statement and background information for 2943 Swedish, Norwegian, Finnish and Danish firms having filed for bankruptcy within 365 days after the balance sheet date. The sample was composed as follows.

The Swedish data consists of 1387 companies that filed for bankruptcy between October 2008 and October 2009. The bankrupt companies were identified from the database Affärsdata that includes information about all bankruptcy filings in Sweden. This resulted in an initial sample of 6,092 bankruptcy filings.⁹ For in-

⁸ Reported turnover for the largest ten audit firms in 2009 (in million Euro): 1) PricewaterhouseCoopers 471, 2) Ernst & Young 296, 3) KPMG 218, 4) Deloitte 148, 5) Grant Thornton 97, 6) BDO 60, 7) SET Revisionsbyrå 34, 8) Baker Tilly 18, 9) Nexia 6, 10) Rödl & Partners 6. Exchange rate: 1 Euro = 9,148 SEK (December 8, 2010).

⁹ Only limited liability companies were included. The total number of bankruptcies in Sweden was 6,626 in 2008 and 7,933 in 2009 according to statistics prepared by Kronofogden, the Swedish Enforcement Authority (KFM Rapport 2/2010 p. 5).

clusion in the sample we required access to an audited annual report with fiscal year end within 12 months prior to the bankruptcy filing, which resulted in an exclusion of 4659 companies. Furthermore, we excluded 16 companies that did not have any assets according to the database and 30 companies with missing variables leaving 1387 firms for further analyses. The audit reports of the companies were retrieved from Affärsdata and manually coded into the categories needed for the study.

The Norwegian data set consists of 1173 limited companies that were declared bankrupt during 2008 and 2009. We received a list of all bankrupt companies from Experian AS (that gather information directly from The Brønnøysund Register). From the total number of 5440 bankrupt companies, we excluded those that did not file an annual report during the 12 month prior to bankruptcy leaving 1203 firms. Furthermore, we excluded 5 companies that did not have any assets according the database and 30 firms with missing values on the independent variables, leaving 1173 firms.. Financial data and categorized information in the audit report was received from the data provider Experian AS. The database included the information needed to identify going-concern opinions and modified audit reports.

The Finnish data consist of 104 companies that filed for bankruptcy in 2007-2011. The bankrupt companies and their financial statements were obtained from the largest Finnish credit information company Suomen Asiakastieto Oy (see <http://www.asiakastieto.fi>). Their files include financial statements filed with the National Board of Patents and Registration of Finland (PRH). The audit reports were retrieved directly from PRH and manually coded into the categories needed for this study. The sample was composed as follows. Financial statements and audit reports are very frequently missing for the year prior to bankruptcy for Finnish companies. We were able to identify the audit report and financial data for 176 companies with a financial statement date less than 365 days before the bankruptcy filing. The sample covers the 2001 to 2011 period.

Of these, non-certified auditors, that is, persons without any formal qualification in auditing, audited 32 companies. Non-certified auditors are not allowed to conduct audits in Finland anymore and we exclude these observations from our main analyses, leaving 144 companies. Furthermore, in order to have a sub-sample that covers approximately the same period as the sub-samples from the other countries, we excluded 38 firms with a balance sheet date before 2007. Finally, 2 observations with missing variables were excluded leaving 104 firms.

The Danish dataset consists of all limited companies declared bankrupt in the period 1 June – 30 September 2009, a total population of 1452 companies. 291 companies have published their latest annual report within 12 months from the date of bankruptcy. Of these, 9 companies had opted out from auditing, 2 companies with zero assets and 1 company with missing data were excluded leaving 279 companies. The audit reports are retrieved as pdf-files from the Danish company registry and manually keyed into the database.

4.2. Model

We use the propensity to issue going concern opinions as well as the overall propensity to issue modified audit opinions before bankruptcy for our examination of differences in practices between the countries. In our multivariate analyses, the following logistic regression models are used:

$$\text{REPORT} = \beta_0 + \beta_1 \cdot \text{NORWAY} + \beta_2 \cdot \text{SWEDEN} + \beta_3 \cdot \text{FINLAND} + \beta_4 \cdot \text{BIG4} \\ + \beta_5 \cdot \text{LOSS} + \beta_6 \cdot \text{SOLVENCY} + \beta_7 \cdot \text{ROA} + \beta_8 \cdot \text{CACL} + \beta_9 \cdot \text{BANKRTIME} \\ + \beta_{10} \cdot \text{LNASSETS} + \varepsilon$$

where:

REPORT = is either GC or MODIFIED.

GC = is an indicator variable taking the value 1 if the company has received a going-concern opinion and zero otherwise

MODIFIED =	is an indicator variable taking the value 0 if the company has received a standard (clean) audit report and 1 otherwise
NORWAY =	1 if the company is from Norway
SWEDEN =	1 if the company is from Sweden
FINLAND =	1 if the company is from Finland
BIG 4 =	1 if the company is audited by PWC, KPMG, Deloitte or Ernst & Young
LOSS =	1 if net income is negative and zero otherwise
SOLVENCY =	shareholders' equity to total assets
ROA =	net income before interest and taxes to total assets
CACL =	current assets to current liabilities
BANKRTIME =	time in days between the balance sheet date and bankruptcy filing
LNASSETS =	natural logarithm of assets (in Euros)

The models controls for the facts that audit firm size, the financial health, the size of the company and the time between the balance sheet date and bankruptcy may influence the reporting.

Based on DeAngelo's (1981) seminal study a large number of studies have explored whether Big 4 audit firms provide higher quality audits than non-Big 4 audit firms. The results are generally consistent with the prediction (e.g., Robinson 2008) albeit some studies of privately held companies in Europe suggest that there are no significant differences between Big 4 and non Big 4 auditors (e.g., VanderBauwhede and Willekens 2004). We include BIG 4 to control for possible differences in the proportions of companies audited by Big 4 and non Big 4 auditors in the countries compared. Furthermore, as one would expect that it is easier to identify financially weak failing firms we include controls for performance, liquidity and solvency. Bankruptcy prediction studies generally suggest ratios from these three categories give a good description of the probability of bankruptcy (e.g., Ohlson 1980; Zmijewski 1984). We include ROA,

LOSS, SOLVENCY and CACL in the models. Finally we include BANKRTIME and LNASSETS into the model. BANKRTIME controls for the fact that it is likely to be easier for auditors to predict bankruptcies that take place a short time after the balance sheet date than bankruptcies that take place close to a year after the balance sheet date. Some prior studies of publicly traded companies suggest that the likelihood of a going-concern opinion decreases with the size of the company (e.g., Li 2009). However, a reason for a positive association among privately held companies is that somewhat larger companies are more visible, and thus, the cost of incorrectly issuing a clean opinion is higher (Sundgren and Svanström 2010). The calculations of the variables are presented in Table 2.

Some of control variables have very extreme values. To reduce the impact of outliers on the results, we winsorized SOLVENCY, ROA and CACL 2.5 % in each tail. We comment also results from non-winsorized variables below.

4.3. Descriptive statistics

Table 3 includes descriptive statistics on the companies. First of all, it can be seen from the Table that the average time in days between the balance sheet dates and bankruptcy filing dates range from 265.42 days (Denmark) to 293.00 days (Norway).

Furthermore, it can be seen from the table that the Danish companies are somewhat larger than the companies from particularly Sweden and Norway albeit the differences are small. The mean (median) assets of the Danish companies are 1.98 (0.43) Million Euro. The corresponding means and medians are 0.71 and 0.17 Million Euros for the Norwegian companies, and 0.55 and 0.12 Million Euros for the Swedish companies. The mean (median) assets of the Finnish companies are 1.64 (0.40) Million Euros.

As one would surmise, the performance of the companies is poor. The proportions of companies in the sample that make a loss vary between 70.58 % (Swe-

den) and 83.80 % (Norway). The average return on assets is also negative for the companies from all three countries. The solvencies of the companies are also low: the average solvency is negative for the companies from all countries and the median is negative for all countries except Sweden.

Table 3 also includes information about whether the companies were audited by Big 4 auditors. The proportions vary between 15.00 % in Norway and 34.25 % in Sweden. Probably as a consequence of selection effects, the proportions tend to be lower than for the overall populations in the countries. For example, in Sweden 48.23 % of all certified auditors worked at Big 4 firms in the end of 2009. The corresponding percentage in Denmark is 38.9. In the Danish sample BIG 4 auditors audited 22 % of the firms and the corresponding percentage in the Finnish sample is 16 %.

All four countries have two-tier systems of auditor qualifications. In Denmark, 61.29% (171 / 279) are audited by the auditors with the higher “state-authorized” authorization. The proportion of auditors with the higher qualification is 58.54% in Sweden and 49.04% in Finland. Information about the qualifications of the auditors is not available for the Norwegian companies in the sample.

5. ANALYSIS AND FINDINGS

5.1. Univariate evidence

Panel A in Table 4 reveals that there are significant differences in the going-concern reporting between the countries. It can be seen from the Table that the Danish auditors added a paragraph related to the going-concern issue for 48.03% of the companies. The corresponding percentages in Norway, Sweden and Finland are 25.58%, 18.10% and 20.19%, respectively. The proportion of bankrupt companies with going concern opinions has increased significantly over time in Finland. As described in section 4.1, we collected also information about going concern opinions for companies whose balance sheet date was

before 2007. Only 2 of 38 firms (5.26%) of these firms received a going concern opinion.¹⁰

The going-concern reports were also classified into the categories “emphasis of matter” and “qualified opinion”. A report is classified as “emphasis of matter” if auditors have issued an unmodified opinion but included an additional paragraph in the audit report describing uncertainties related to the going concern issue (i.e. an opinion based on circumstances similar to para. 18 – 20 in the 2009 version of ISA 570). The reports are classified as “qualified opinions” if the auditor has concluded that the information about the going-concern issue in the financial statements is inadequate or incorrect and the auditor consequently has expressed a qualified or adverse opinion in the audit report.

The Danish auditors have issued a qualified going-concern opinion in for a much higher fraction of the companies than the auditors in the other countries: Danish auditors issued a qualified opinion to 19.35% of the cases, while the corresponding percentages are 4.69% for Norway, 0.87% for Sweden and 0 % for Finland.

Auditors in the countries have in many cases modified the audit reports for other reasons than going-concern. It can be seen from Panel B of Table 4 that the Norwegian auditors issued a standard audit report only in 24.04%. The corresponding percentages for the Danish, Finnish and Swedish companies are 32.26%, 32.69% and 42.11%. A common reason in all countries for modified audit reports is that they include a paragraph related to the involuntary liquida-

¹⁰ This differences is not driven by firm characteristics. We estimated a logistic regression with GC as the dependent variable, an indicator variable taking the value one if the balance sheet date was before 2007 and the same control variables as in Table 5 on the sub-sample with Finnish firms. The indicator variable taking the value one if the balance sheet date had a negative coefficient significant with a p-value equal to 0.093. The odds-ratio of the coefficient was 0.27 suggesting that for each going concern opinion after 2007 there was only 0.27 going concern opinions before 2007.

tion that companies may have to undertake according to the Company Laws in the countries if shareholders' equity is negative.

5.2. Logistic regression results

As can be seen from Table 3, the averages of assets, performance, solvency and time between the balance sheet dates and bankruptcy filings vary significantly between the countries. As suggested in section 3.2, these factors are likely to be associated to auditors' reporting. In the first part of this section we use logistic regressions to further explore the differences in the reporting between the countries. In the second part of the section factors associated with the probability of a modified audit opinion are studied.

5.2.1. Likelihood of a going-concern opinion

In the binary logistic regressions in Table 5 we control for the effects of financial health, time between the balance sheet date and bankruptcy, size and auditor type by regressing country and control variables on the probability of a going-concern opinion. The dependent variable takes the value one if the auditor has added an emphasis of matter paragraph, or issued a qualified opinion, and the value zero if the audit report does not include any remarks related to the going-concern audit standards in the countries.

Danish companies are in the reference category in the regressions. Thus, a positive (negative) sign on a country variable suggests that the probability that the auditor has added a paragraph related to the going-concern issue is higher (lower) in the corresponding country than in Denmark. The results show that the coefficients of NORWAY, SWEDEN and FINLAND are all negative and significantly different from zero at the 0.01 level. Thus, the logistic regression results confirm the univariate evidence in Table 3 that companies from Denmark are more likely to issue a going-concern opinion before bankruptcy than companies from the other countries in the sample.

The more negative coefficients for Sweden and Finland than for Norway indicate that Norwegian companies are more to receive a going-concern paragraph than Finnish and Swedish companies. We use a chi-square test to formally test whether the coefficients are significantly different and, as can be seen from Table 5, the zero hypothesis that the coefficient of Sweden is equal to the coefficient of Norway, as well as the zero hypothesis that the coefficient of Finland is equal to the coefficient of Norway, can be rejected at the 0.01 level. The proportion of going concern opinions in Sweden is not significantly different from the proportion of going concern opinions in Finland. Thus, the ordering of the countries with respect to the incidence of going-concern opinions are Denmark, Norway and Sweden / Finland.¹¹

Of the other variables in the regressions it can be seen that the likelihood of a going-concern modified report is decreasing with SOLVENCY, ROA and CACL. These variables are associated with the bankruptcy risk of companies and the results are showing that auditors more frequently fail to issue a going-concern modified report as the firm appears to be financially healthier. LOSS is also positively associated with a higher probability of bankruptcy. All variables except ROA are significant at the 0.01 level. A probable reason for the lower significance level of ROA is that LOSS partly controls for the effect of performance. ROA is significant at the 0.01 level as LOSS is removed from the regression.

Furthermore, it can be seen that BIG 4 auditors are significantly more likely to issue a going-concern modified report than non-Big 4 auditors. This finding is consistent with prior studies suggesting that Big 4 auditors conduct higher quality audits and/or that they are more conservative (see e.g.; Francis and Krishan 1999; Lennox 1999; Weber and Willenborg 2003). Finally, it can be seen from

¹¹ The variables had a number of extreme values and were winsorized. The only difference in the main results that were identified as we ran the model on non-winsorized data was that the difference in the coefficient between Norway and Finland was then significant only at the 0.10 level (significant at the 0.05 level in Table 5).

the table that BANKRTIME and LNASSETS are positively associated with the likelihood of a going-concern opinion.

The significance of the country variables is not affected by the removal of ROA, LOSS or other minor changes in the model specification. There is some variation in the sizes of the firms from the countries and we tried to estimate models in which the quartile with the smallest firms was excluded. These results were qualitatively similar to the ones in Table 5 with the exception that the difference between Norway and Sweden was significant only at the 0.10 percent. The results were qualitatively similar to the ones reported in Table 5 when the quartile with the largest companies was omitted from the analyses.

The binary regressions reported in Table 5 do not differentiate between emphasis of matter and qualified going-concern opinions. In order to further explore differences in the reporting practices between the countries multinomial logistic regressions were estimated in which the dependent variable took three different values depending on whether the audit report did not include any remarks related to the going-concern issue, emphasis of matter going concern reports and going-concern reports with a qualified opinion (not reported in tables). Finnish companies were excluded from these regressions because the auditors had not issued any qualified opinion reports (see Table 4). These results confirm that Swedish and Norwegian companies are less likely to issue emphasis of matter as well as qualified opinion reports than Danish companies.

5.2.2. Likelihood of a modified audit opinion

Panel B of Table 5 includes results with a modified audit opinion as the dependent variable. It can be seen from the table that the differences between the countries are much smaller than for going-concern opinions. As in the results discussed above, Denmark is in the reference category. Thus, a negative sign of a country dummy suggests that modified audit opinions are less likely in the country in question than in Denmark. It can be seen from the table that the coefficient of Norway is positive with a p-value of 0.08. This suggests that auditors in

Norway are somewhat more likely to modify the audit report before bankruptcy than auditors in Denmark. The coefficient of Sweden is negative, indicating that auditors in Sweden are less likely to modify the audit report than auditors in Denmark. The coefficient of Finland is negative but insignificant.

A further noteworthy finding in Panel B of Table 5 is that there are no significant differences in the likelihoods to issue modified audit opinions between Big 4 and non-Big 4 audit firms. One possible interpretation of this result is that Big 4 audit firms on average have higher quality clients and that modified audit opinions are therefore less likely to be needed.

6. DISCUSSION AND CONCLUSION

There are several advantages of similar rules across nations and the current paper aims to examine whether similarity of auditing standards among Nordic countries indicate that the practice is similar as well. In sum, this study investigates the auditor's going concern reporting before bankruptcy within and between Denmark, Finland, Norway and Sweden. Based on the findings of the current study, there are significant differences in the going concern reporting before bankruptcy between the Nordic countries.

Modifying the audit report due to the going concern issue seems to be significantly more likely in Denmark than in Norway, Sweden and Finland. That is, the Danish auditors added a paragraph related to the going-concern issue for 48.03 % of the companies whereas the corresponding percentages in Norway, Finland and Sweden were 25.58 %, 20.19 % and 18.10 %, respectively. Moreover, the current study classified the going-concern reports into two groups: "emphasis of matter" and "qualified opinion" and it was found that Danish auditors issued a qualified going-concern opinion significantly for a much higher fraction of the companies than the auditors in other countries. That is, the Danish auditors issued a qualified audit opinion to 19.35 % of the cases, while the correspond-

ing percentages were 4.69 % for Norway, 0.87 % for Sweden and 0 % for Finland. In sum, according to the logistic regression results the ordering of the countries with respect to the incidence of going concern opinions were Denmark, Norway and Sweden/Finland. The proportion of going-concern opinions in Sweden was not significantly different from the proportion of going-concern opinions in Finland. In addition, the current study included BIG 4 to control for possible differences in the proportions of companies audited by BIG 4 and non BIG 4 auditors in the countries compared. Our study show that BIG 4 auditors were significantly more likely to issue a going-concern opinion than non-BIG 4 auditors.

Interestingly, even though the going-concern reporting was inadequate, the current study found that the auditors had included an emphasis of matter paragraph, i.e. a modified audit opinion, for other reasons than the going-concern issue prior to bankruptcy. The differences among the countries were much smaller for adding a paragraph related to other issues than qualifying the audit report for going concern issues. That is, the Norwegian auditors issued a standard audit report only in 24.04 % of the bankrupt companies whereas the corresponding percentages in Danish, Finnish and Swedish were 32.26%, 32.69% and 42.11%, respectively. The most common reason in all four countries for emphasis of matter paragraph related to the involuntary liquidation that companies might have to undertake according to the Company Laws in the countries if shareholders' equity is negative. A further noteworthy finding was that there were no significant differences in the likelihood to include emphasis of matter paragraph for other reasons between BIG 4 and non-BIG 4 audit firms, as it was the case with going-concern reporting.

The current study has several implications for a more general understanding of how ISAs are implemented and interpreted locally. According to the International Auditing and Assurance Standard Board's (IAASB) strategy and work program 2009-2011, the IAASB is concerned that the local implementation of the ISA does not ensure the development of a consistent practice. Our study cer-

tainly supports this concern. Although limited to a single standard (ISA 570) and a limited but homogeneous area (the Nordic countries), our research has shown the existence of significant differences in the way ISA 570 is implemented in local practice in terms of reporting and disclosure. Our study does not show whether the lack of consistency in practice is limited to this particular standard or is a more general phenomenon, but it certainly indicates the need for additional comparative research to make the nature and magnitude of the differences clear to users of financial statements. As suggested by Martin (2000), the consequence of the differences in reporting practice is that users of financial statements should be careful not to interpret a going concern opinion similarly in different national contexts, since this could lead users to misestimate the level of uncertainty associated with the going-concern assumption when evaluating company risk and prospects. Furthermore, even within the individual countries in the study the standards seems to be interpreted differently as suggested by the above mentioned differences between practices of the Big Four and the rest of the profession, which makes it even more difficult for users to assess and compare companies' risks following going concern opinions.

The significant differences in going concern reporting in the Nordic countries raises a number of interesting questions about causal explanations, which calls for further investigation. Why do the extant practices vary significantly among Nordic countries even though standards are similar or identical? Why do differences exist between Big Four and the rest of the profession within the countries? Why does the accounting profession only get the going concern opinion right in 48% of the bankrupt companies at the best and in 18% at the worst? These and other questions will remain open for future comparative accounting research. Following Nobes & Parker (2010) we tentatively suggest that explanations are primarily to be found in the institutionalization of past practices, which are continued to the present as part of the prevailing culture among auditors in each country.

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Table 1: Auditing standards and going-concern reporting in the countries

International Standards on Auditing (ISA)			
<p>Finland</p> <p>Full adoption of translations of the ISA and a requirement to follow the ISA standards was included in the new Auditing Act in January 2007 (direct translation to Finnish available). From 1996-1999 the KHT institute carried out significant harmonizing and translation to harmonize the recommendations with the ISA standards (Niemi & Sundgren 2008).</p>	<p>Sweden</p> <p>Full adoption of ISA from 2011. National auditing standards, Revisionsstandard (RS), issued between 2004 and 2010 are to a high degree based on ISA. Audits of financial statements after 1st of January 2011 should be conducted in full compliance with ISA (direct translation to Swedish available).</p>	<p>Norway</p> <p>Full adoption of ISA from 2010. National auditing standards, Revisjonsstandarder (RS), issued between 1994 and 2009 are to a high degree based on ISA. Audits of financial statements after 1st of January 2010 should be conducted in full compliance with ISA (direct translation to Norwegian available).</p>	<p>Denmark</p> <p>Full adoption of translations of the ISA from January 2003 (Danish auditing standards) with minor amendments (in italics) that follow from Danish law.</p>
ISA 570 on going concern			
<p>Finland</p> <p>In accordance with ISA 570</p>	<p>Sweden</p> <p>RS 570. In accordance with ISA 570 but with one adjustment Experience of GC reporting since 2004</p>	<p>Norway</p> <p>RS 570. In all qualitative aspects identical with Swedish RS 570 and ISA 570, but with four adjustments Experience of GC reporting since a very long time, at least since 80s</p>	<p>Denmark</p> <p>RS 570. In all aspects identical with ISA 570, but with adjustments in section 33 and 34 regarding the audit opinion</p>

Table 2: Variable definitions

ASSETS	Total assets in million Euros. Amounts in Danish, Norwegian and Swedish kronor are converted to Euros using end of years exchange rates
LNASSETS	The natural logarithm of assets (in euros)
BIG 4	An indicator variable taking the value one if the firm is audited by Deloitte, Ernst&Young, KPMG or PWC
LOSS	An indicator variable taking the value one if the company made a loss
SOLVENCY	Shareholders' equity to total assets
ROA	Return-on-assets
CACL	Current ratio
BANKRTIME	Time in days between balance sheet date and bankruptcy

Table 3: Descriptive statistics

	Denmark		Norway		Sweden		Finland		P-value
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	
ASSETS (million €)	1.98	0.43	0.71	0.17	0.55	0.12	1.64	0.40	<0.001
LNASSETS	12.95	12.97	12.06	12.03	11.68	11.68	12.97	12.91	
BIG4	0.22	0.00	0.15	0.00	0.34	0.00	0.16	0.00	<0.001
BANKRTIME (days)	265.42	258.00	293.00	304.00	266.46	278.00	269.88	285.50	<0.001
ROA	-0.38	-0.10	-0.21	0.00	-0.32	-0.07	-0.20	-0.13	<0.001
LOSS	0.80	1.00	0.84	1.00	0.71	1.00	0.87	1.00	<0.001
SOLVENCY	-0.68	-0.05	-0.68	-0.12	-0.39	0.07	-0.57	-0.15	<0.001
CACL	0.97	0.76	1.03	0.81	1.31	1.02	0.79	0.70	<0.001
Number of observations	279		1173		1387		104		

Notes: P-values for the continuous variables are for tests that the averages are the same across the countries. A Pearson chi-square is used for the indicator variables BIG 4 and LOSS.

Table 4: Frequency of going-concern modified audit opinions and modified audit reports prior to bankruptcy

Panel A: Going concern opinions

	<i>Denmark</i>		<i>Norway</i>		<i>Sweden</i>		<i>Finland</i>	
No going-concern opinion	145	51.97 %	873	74.42 %	1136	81.90 %	83	79.81 %
Emphasis of matter	80	28.67 %	245	20.89 %	239	17.23 %	21	20.19 %
Qualified opinion	54	19.35 %	55	4.69 %	12	0.87 %	0	0.00 %
Total	279	100.00 %	1173	100.00 %	1387	100.00 %	104	100.00 %

Pearson chi-square (6) = 242.94 (p-value < 0.001)

Panel B: Modified audit opinions

	<i>Denmark</i>		<i>Norway</i>		<i>Sweden</i>		<i>Finland</i>	
Clean audit report	90	32.26 %	282	24.04 %	584	42.11 %	34	32.69 %
Non-clean audit report	189	67.74 %	891	75.96 %	803	57.89 %	70	67.31 %
Total	279	100.00 %	1173	100.00 %	1387	100.00 %	104	100.00 %

Pearson chi-square (3) = 93.22 (p-value < 0.001)

Notes: P-values are for Pearson chi-square tests for the null hypothesis that the observed frequencies of going-concern opinions (modified opinions) are equal to the overall frequencies in the data.

Table 5: Logistic regressions of country and control variables on audit opinions

Panel A: Going-concern opinions (N=2,943)

	Coeff.	T-value	P-value
NORWAY	-0.892	-6.100	0.000
SWEDEN	-1.295	-8.590	0.000
FINLAND	-1.413	-5.020	0.000
BIG 4	0.290	2.710	0.007
LOSS	1.060	7.290	0.000
SOLVENCY	-0.081	-2.820	0.005
ROA	-0.111	-1.490	0.137
CACL	-0.220	-3.800	0.000
BANKRTIME	-0.003	-3.940	0.000
LNASSETS	0.076	2.460	0.014
CONSTANT	-1.132	-2.280	0.023
MODEL CHI-SQUARE	230.480		0.000
PSEUDO R-SQUARE	0.085		
<i>Tests of coefficients:</i>	<i>Chi-square</i>	<i>P-value</i>	
NORWAY=SWEDEN	3.930	0.000	
NORWAY=FINLAND	3.970	0.046	
SWEDEN=FINLAND	0.200	0.658	

Panel B: Modified audit opinions (N=2,943)

	Coeff.	T-value	P-value
NORWAY	0.283	1.750	0.080
SWEDEN	-0.336	-2.150	0.032
FINLAND	-0.247	-0.920	0.358
BIG 4	-0.051	-0.510	0.610
LOSS	0.804	7.260	0.000
SOLVENCY	-0.967	-2.870	0.004
ROA	-0.086	-0.610	0.541
CACL	-0.188	-3.910	0.000
BANKRTIME	0.000	-0.740	0.461
LNASSETS	-0.119	-3.930	0.000
CONSTANT	1.822	3.820	0.000
MODEL CHI-SQUARE	260.380		
PSEUDO R-SQUARE	0.152		
<i>Tests of coefficients:</i>	<i>Chi-square</i>	<i>P-value</i>	
NORWAY=SWEDEN	6.290	0.000	
NORWAY=FINLAND	4.960	0.026	
SWEDEN=FINLAND	0.140	0.713	

APPENDIX 1, Country-specific audit requirements

Statutory audit requirement ¹²			
Finland The company has to be audited if at least two of these circumstances exist: 1) Balance sheet total > 100.000 € 2) Net sales > 200.000 € 3) Average no of employees > 3	Sweden The company has to be audited if at least two of these circumstances exist: 1) Balance sheet total > 163.934 € ¹³ 2) Net sales > 327.869 € 3) Average no of employees > 3	Norway The company has to be audited if the following circumstances exist: 1) Balance sheet total > 2.503 million € ¹⁴ 2) Net sales > 625.782 € 3) Average no of employees > 10	Denmark The company has to be audited if at least two of these circumstances exist: 1) Balance sheet total > 196.850 € ¹⁵ 2) Net sales > 393.700 € 3) Average no of employees > 12
Content of auditing			
Finland Audit of accounting records, the report of the Board of the Directors, the financial statements and the governance report of a firm	Sweden Audit of annual report, accounting records and management's stewardship.	Norway Audit of financial statement, proper registration of accounting information and tax related information.	Denmark Audit of the annual report, including compliance with general accepted accounting principles and (national) rules.
Audit report			
Finland Unqualified, unqualified with modified wording or qualified	Sweden Unqualified, unqualified with modification or qualified (least severe departure from an unqualified report), adverse	Norway Unqualified, unqualified with modification or explanatory paragraph, qualified, adverse or disclaimer	Denmark Unqualified, emphasis of matter, qualified
The auditor expresses an opinion			
Finland	Sweden	Norway	Denmark

¹² Audit exemptions in Sweden and Norway were not introduced at the time of the study

¹³ 1 Euro = 9.15 SEK, December 13, 2010

¹⁴ 1 Euro = 7.99 NOK, February 8, 2011

¹⁵ 1 Euro = 7.62 DKK, February 8, 2011

On the financial statements (annual report), the report of the Board of the Directors and issues on of governance	On the financial statement (annual report) and whether Board of Directors and the CEO should be granted discharge from liability	The financial statement (annual report) including the going concern assumption. Management has fulfilled their duty of proper registration and documentation of accounting information.	The annual report, including the conceptual framework applied by management.
Types of approved auditors			
Finland HTM-auditor KHT-auditor Maallikko-auditor	Sweden Approved auditors Authorized auditors	Norway Approved auditors State- authorized auditors	Denmark Registered auditors State-authorized auditors