Cross selling of non-audit services and the consequences for earnings quality and audit quality in the Netherlands

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21-06-2012
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Abstract

This thesis studies the effect of cross selling non-audit services on earnings quality and audit quality in the Netherlands. European Commissioner Michel Barnier published a green paper in the end of November 2011, about current issues that are believed to be problems in the audit industry and possible solutions. One of these problems is the practice of cross selling non-audit services to audit clients. Barnier proposes to ban cross selling non-audit services to public interest entities. Dutch politicians took this proposal serious and the majority of the Dutch Parliament supported amendment 24B Wta (Audit Firms Oversight Act) during February 2012. This amendment will prohibit audit firms to cross sell non-audit services to clients, who are classified as a public interest entity.

Client importance is measured by dividing total non-audit fees by total fees that are paid to the auditor. This is used to study if this cross selling has an effect on audit quality and earnings quality. The sample consists of 163 company observations from which 112 observations disclose additional information. The main finding of this thesis is that companies that buy relative large amounts of non-audit services are more inclined to disclose more information. From the Basu model (1997) it is concluded that companies that buy large amounts of non-audit services report less conservatively compared to companies that buy low amounts of non-audit services. Other measures do not support this. From the coefficients of the earnings management model it seems that indeed the cross selling of relative large amounts of non-audit services increases the level of earnings management and thus a decreased level of audit quality and earnings quality. However the results from the earnings management measure are insignificant. Overall, no hard evidence is found that the practice of cross selling non-audit services influences audit quality and earnings quality. However the suspicion remains, since the sample might be somewhat small.

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1 Introduction

On the 30th of November 2011 M. Barnier, European Commissioner for Internal Market and Services, has published his final green paper about current problems in the audit industry and proposals to solve these problems. These proposals are made to decrease the expectation gap between the auditor’s role and public belief. The proposals would also increase the audit quality of financial statements of public interest companies. Independence in fact and in appearance can differ. The value of an audit decreases when users do not believe that the auditor is independent, although he might be fully independent. Merely the possible appearance of a conflict of interest will lower the value of an audit. Krishnan, Sami and Zhang (2005) studied the cross selling of non-audit services and the relationship between stock return and the unexpected part of earnings announcements. This research confirmed that the market expects a decrease in auditor independence when non-audit services are cross sold. Barnier proposes that there should be a ‘focus’ on pure audit, prohibiting audit firms, starting from a certain size, to sell and deliver non-audit services or even force these firms to split off their non-audit branches. Furthermore it is proposed to ban the cross selling of consultancy services to audit clients. This is done to improve the auditor’s independence in appearance.

Generally speaking there are two groups of audit firms. The first group, which consists of the big 4 audit firms, is not pleased with these proposals. This group claims that the separation of audit and non-audit services will decrease overall service quality and increase clients’ cost. The International Accounting Bulletin’s headline on the 27th of March 2012 was “Big Four warned against ‘excessive’ lobbying”. From this article it is clear that the European Commission on Auditing is not pleased with the big 4 lobby (Gyorkos, 2012). The second group, which consists of smaller audit firms, is less negative about these proposals. The CEO of BDO International M. van Roekel stated during the Accountancynieuwsdag 2011 that auditors should participate in the debate about the profession. He also said that BDO will engage itself in a positive and constructive manner in order improve the audit profession.

The common practice of cross selling non-audit services is subject to debate. In the past an auditor was hired to give an opinion about the question whether the financial statements provide a true and fair view. So management has an incentive to hire an independent auditor in order to get add credibility to the financial statements. Clients also want additional services. Many audit firms started to use their knowledge and expertise to sell a wide variety of (professional) services. Van Schaik (2003) claimed that in the beginning of the twenty-first century the cross selling of non-audit services increased strongly. As a consequence the
economic bond between the auditor and the client strengthened. This is one of the reasons why the SEC forces companies to disclose their paid audit and non-audit fees from 2001 onwards.

Providing non-audit services by audit firms, who also audit the client, and the effect on financial reporting quality is heavily debated among academics, regulators, governments and investors. This debate is important since nowadays the accounting profession sells relatively cheap audits in order to cross sell other services, i.e. tax and consultancy.

The economic bond of an auditor with a client cannot be measured, since it is impossible to observe the profits of an audit firm on each individual client. According to Frankel, Johnson & Nelson (2002) audit and non-audit service fees are a good alternative to measure the economic bond. On the one hand it is argued that cross selling of non-audit services leads to knowledge spillovers, which will increase the quality of the traditional audit service (Simunic, 1984). On the other hand other research found that providing both kinds of services lowers auditor independence, because the audit firm has a stronger economic bond with the client (Ferguson et al., 2004). So it is expected that high fees for non-audit services will impair auditor independence, leaving more opportunity for management to manage earnings and possibly lower conservatism, by recognizing revenue more aggressively. The latter reasoning is used in the green paper of European Commissioner Barnier to give notion to concerns regarding the impairment of auditor independence as a result of the stronger economic bond between the auditor and the client.

This thesis explores the effects on audit quality and earnings quality when non-audit services are cross sold. Both audit quality and earnings quality are operationalized by earnings management and conditional accounting conservatism (later referred to as conservatism) (Barth, Landsman & Lang, 2007).

Combining frequently used definitions from Leuz, Nanda and Wysocki (2003) and Healy and Wahlen (1999) of earnings management, provides us with the following definition: earnings management is the change of reported economic performance by firm insiders to influence (contractual) outcomes or to mislead stakeholders. So earnings management is actually about manipulating a firm’s performance in order to influence contractual outcomes or to gain private benefits by misleading stakeholders. This is the reason why earnings management is seen as a bad thing.
Conservatism is usually summarized as: recognize all losses, but recognize profits when these are “earned and measurable” (Collins et al., 2009). However, conservatism splits into two different kinds of conservatism (Ball & Shivakumar, 2005). First of all unconditional conservatism, which is also known as balance sheet conservatism (Feltham & Ohlson, 1995), where an underestimation of the book value of equity regardless of any good or bad news is present. An example is accelerated depreciation where the book value is lower than the economic value. Second, there is conditional conservatism also known as earnings conservatism, sometimes referred as timely loss recognition or earnings conservatism (Basu, 1997), where an asymmetrical recognition of earnings is caused by good and bad news. Economic bad news will be recognized earlier in the financial statements than economic good news. For example inventory is valued using the lower of the historical cost or market value. This research will mainly focus on conditional conservatism.

More conditional conservative reporting companies have a greater timing difference between profit and loss recognition compared to less conservative reporting companies (Feltham & Ohlson, 1995). As a consequence more conservative companies understate their net assets in the current period. This thesis focuses on conditional conservatism.

So managers can “abuse” conservatism and manage earnings in order to affect reported earnings or other parts of the statements.

This thesis answers the following research question: Does cross selling of non-audit services affect earnings quality and audit quality in the Netherlands?

Earnings management is measured by the DeFond and Park (2001) model, which focuses on working capital accruals. This model assumes that more managerial opportunism will lead to higher discretionary working capital accruals and thus more earnings management. Auditor independence is at stake or even compromised when discretionary working capital accruals increase when an audit firms cross sells more non-audit services. The DeFond and Park (2001) model is helpful for indicating accrual changes compared to last year. An increase in accrual changes implies increased managerial opportunism (after controlling for external factors).

Conditional conservatism is measured by using the Basu model (1997) and the Ball & Shivakumar model (2005). The market-to-book ratio is used as an additional check. Accounting conservatism is seen as a measure for higher quality accounting (Ball & Shivakumar, 2005; Basu, 1997). Conservatism constrains managers in their opportunistic
behavior reducing agency problems. According to Watts (2003a) being more conservative in accounting has benefits. Benefits include a manner to lower moral hazard in contracts caused by information asymmetry, reduce the litigation cost by understating net assets, defer tax payments by acknowledging expenses earlier than earnings and a reduction of standard setters’ and regulators’ cost. However regulators sometimes favor “neutrality” for example consolidation goodwill, where according to IFRS 3 (Fuchs, Van Hoepen & Van Vlimmeren, 2011), an annual impairment test is mandatory instead of a systematic depreciation of consolidation goodwill. Neutral reporting is reporting in such a way that the financial statements provide users with a bias-free view of the financial position and financial performance of a company. Investors will prefer neutral information for investment decisions. Investment models will give the most reliable results with neutral information and this leads to a more efficient capital market. Managers have incentives to influence the financial statements in order to boost their bonus plan, image or career. Not only managers prefer non-neutral reporting, but also contract parties, for instance lenders. Lenders analyze past and current financial statements and future prospects in order to decide if a loan is granted. Many debt contracts have a covenant stating that the value of net assets may not drop below a certain threshold. The consequence of violating the covenant, an immediate repayment of the loan is not uncommon (Watts, 2003a). Watts (2003a) argues that lenders include rules in their covenants in order to keep the value of net assets verifiable for example by omitting goodwill as an asset. Just like managers, lenders do not prefer neutrality.

This research contributes to existing literature, because earlier research focused on one aspect of earnings quality; conditional conservatism (Ball & Shivakumar, 2005) or earnings management (Larcker & Richardson, 2004). This research finds the consequence on total earnings quality, which is also societally relevant, since non-audit services are heavily debated in the European Commission and in the Dutch Parliament. Not only European Commissioner Barnier proposed to restrict non-audit services, also the majority of the Dutch Parliament supported amendment 24b Wta (Audit Firms Oversight Act) during February 2012. This amendment prohibits auditors to perform non-audit services to audit clients that are classified as public interest entity under the first act of the Dutch Audit Supervision Act. Especially big 4 audit firms disagree with this amendment arguing that performing both services increases clients' value, because the auditor has knowledge about his clients and thus can be more efficient and effective in advisory services.

Research from the UK gives inconclusive evidence about the relation between the cross selling of non-audit services on earnings quality. Ferguson, Seow and Young (2004) found a positive relation between non-audit services and discretionary accruals, so lower quality,
while Antle et al. (2006) found the precise opposite. So research using UK data provides inconclusive evidence if, and in which direction the cross selling of non-audit services affects both conditional conservatism and earnings management. As stated earlier it is hard to predict the influence of cross selling non-audit services, because there is no academic consensus. With this research design it is possible to find out if, and to what extent audit quality and earnings quality are impaired by providing non-audit services and if the new amendment in the Netherlands (which still has to pass the Upper House) contributes to the quality of the audit and the audit profession as a whole.

I find that companies that buy relative large amounts of non-audit services are more likely to disclose information on a voluntary basis. The accounting conservatism models provide mixed results, with one model supporting the idea that companies report less conservatively when more non-audit services are bought. The other models provide non-results. The coefficients of the earnings management measure differ in large extents between companies that buy relative small amounts of non-audit services compared to companies that buy relative large amounts. This indicates that the practice of cross selling large amounts of non-audit services lowers audit quality and earnings quality. However these coefficients are not significant. So just like UK based research this thesis does not provide us clear results.

The remainder of the thesis proceeds as follows. In section two, theory and relevant literature about non-audit services, earnings management and accounting conservatism are discussed from which the research question is further broadened with hypotheses. The third section is about developing the research method and in the fourth section the findings are discussed. The final section summarizes the content of this thesis, presents the main findings, explains the caveats and discusses possibilities for future research.
2 Literature review and development of the research question

This section discusses relevant literature, which is needed to answer the research question: *Does cross selling of non-audit services affect earnings quality and audit quality in the Netherlands.* This includes a literature review of non-audit services, earnings management and conditional accounting conservatism. The hypotheses are made by using this literature review and the research question.

2.1 Non-audit services

This section explains the phenomenon of non-audit services. In section 2.1.1 the existence of auditing and non-audit services is discussed. In section 2.1.2 a brief introduction on auditor independence and the practice of cross selling non-audit services is given. The final section briefly discusses recent legislation in the United States and the Netherlands. This legislation affects the cross selling of non-audit services.

2.1.1 Introduction of the existence of auditing & cross selling of non-audit services

From the nineteenth century onwards it is quite common that an auditor is hired to give an opinion about the question whether the financial statements provide a true and fair view (Baker, 2005). The financial statements are prepared by the client. The auditor provides external verification by auditing these statements to provide users of these statements assurance. So auditing is a phenomenon that can be classified as an agency cost in order to reduce agency problems. According to Jensen and Meckling (1976) agency costs are actually a function of bonding and monitoring expenditures or mechanisms. So are audit costs. The bonding mechanism restricts managers in decision making. For example, by auditing the financial statements a manager is not able to depreciate PPE in only three years. The unaudited financial statements will not automatically provide stakeholders a true and fair view on the financial performance and position of a company. A manager could “cook” the statements when he tries to meet his targets in order to receive additional variable pay. An audit is designed to give assurance to stakeholders that the statements are in accordance with GAAP and provide a true and view. So an audit bonds or limits the freedom of a manager’s actions. The external auditor also monitors the manager’s actions and prevents, for example aggressive revenue recognition.

Managers have incentives to hire an independent auditor in order to add credibility to the financial statements. Clients want tax advice, implementation of firm-wide IT-systems et cetera and most audit firms provide these additional services. So the auditor is a supplier of a
wide variety of (professional) services. When the audit firm not only sells audit services, but also non-audit services the economic bond between the auditor and the client is strengthened. The monitoring and bonding mechanism might be weakened, because of the auditor’s increased (financial) dependence on the client.

The practice of cross selling non-audit services by auditors, who also audit the client, and financial reporting quality is heavily debated among academics, regulators, governments and investors. This debate is important since the popular press claims that nowadays the accounting profession tries to provide relatively cheap audits in order to cross sell other services, i.e. tax and consultancy. This view is supported by commenters on an article about non-audit services on www.accountant.nl (“Drie Amendementen ingediend over Accountantswetgeving”, 2012). However lower independence can be risky for audit firms when it turns out that an auditor failed to report departures from GAAP. Think of Parmalat, Ahold or Enron in the beginning of 2000. These risks include litigation and reputational risks (DeAngelo, 1981).

2.1.2 Auditor independence & cross selling of non-audit services

Literature suggests that auditors have incentives to compromise their independence and objectivity when economic and financial dependence on a client increases (Firth, 1997; Frankel, Johnson & Nelson, 2002; Parkash & Venable, 1993). It is impossible to find the economic bond of an auditor with a client, since it is impossible to observe the profits and revenues of an audit firm on each individual client. According to Frankel, Johnson and Nelson (2002) audit and non-audit service fees are a good alternative to measure the economic bond. Providing additional non-audit services increases the total fees that are paid to the auditor. The client will become more important to the audit firm when the total amount of fees is higher. For example both company A and B appointed auditor X for fiscal year 2011. Both companies paid 5 million Euros for audit services during 2011. However company B also paid 4 million Euros for non-audit services during the year. Which client is more important for auditor X? Company B, the auditor generates more revenue and profit from this client compared to company A. Audit firm X has a stronger economic bond with company B. According to DeAngelo (1981) audit quality is the joint probability that an auditor will both discover a departure from GAAP and will report this departure. Discovering departures from GAAP is the technical ability to detect errors. All auditors have a certain level of education and continuing education, so this should not be a problem. The question whether an auditor is fully independent is answered by the second part of the definition. Will an auditor report a
departure from GAAP when the client threatens to dismiss the auditor? This depends on the revenues and profitability of a client (DeAngelo, 1981). At first sight an audit firm is probably more willing to condone a departure from GAAP when clients are more financially significant. However this willingness is weakened by reputational and litigation risks. The Enron case showed how fragile and important the reputation of an auditor is, since Arthur Andersen is no longer active on the audit market. However under normal market conditions both the auditor and the client are facing costs when their relationship is terminated. A client faces transaction costs to find another auditor and start-up costs when a new auditor is found. Audit firms have knowledge about these transaction costs. Many auditors have raised their fees just below the transaction costs in order to maximize their own wealth. When the relationship is terminated, the auditor loses these so-called client-specific quasi-rents (DeAngelo, 1981). However when the public discovers that a certain auditor is unable to report departures from GAAP other clients are likely to terminate their relationship with the auditor, because such an audit is worthless and stakeholders will demand another auditor.

The cross selling of non-audit services will even further strengthen the economic bonding or financial dependence of the auditor on the client. This may increase the likelihood that an auditor will allow managers more discretion in their application of GAAP. Or in other words, the auditor is less likely to report departures from GAAP in the financial statements. The increased economic bonding is not only caused by the additional revenue and profit generated from selling non-audit services. Synergies may arise when one (audit) firm provides multiple services, because start-up costs and learning curves are carried by one firm (Simunic, 1984). So overall costs decrease and profitability goes up. A part of this cost reduction is probably allocated to the client in order to sell both audit and non-audit services. The allocation depends on the client’s cost savings, because of potential lower transaction costs. A company only negotiates with one audit firm and not with several service providers. Only a small part of these synergies are allocated to the client, when transaction costs are high and vice versa. A company that faces high transaction costs will not easily switch from service provider since this is very costly. In this case only a minor part of the auditor’s synergies need to be allocated in order to prevent a client from switching to another auditor or service provider. Audit quality can be increased by cross selling additional services, since the auditor has more and better knowledge about the company. More and better knowledge may lead to better risk assessment and more knowledge about bottlenecks, which can improve the overall audit quality (Simunic, 1984). The provision of both audit and non-audit services could lead to an increased client dependence on the auditor, because these services can be necessary for the client’s operations. In this situation
it is possible that auditors demand more conservative reporting in order reduce litigation risk and reputational risk. However the only viable rationale for the existence of the audit profession is confidence by stakeholders. The value of an audit decreases when stakeholders perceive an impairment of auditor independence when more non-audit services are cross sold. Although auditors might be able to remain factual independent the value of an audit still decreases. Krishnan, Sami and Zhang (2005) studied this issue using the earnings response coefficient. This coefficient is defined as the relationship between stock return and the unexpected part of earnings announcements. This research confirmed that the market expects lower auditor independence and thus audit quality when non-audit services are cross sold. The main finding is that a negative correlation of the ratio of non-audit services compared to audit services on the earnings response coefficient exists. Other research concluded that providing both kinds of services lowers auditor independence, because the audit firm has a stronger economic bond with the client (Ferguson, Seow & Young, 2004). So it is expected that higher fees for non-audit services will impair auditor independence, leaving more opportunity for management to manage earnings and lower conservatism. This latter reasoning is used by the European Commission and especially by European Commissioner Barnier to give notion to concerns regarding the impairment of auditor independence as a result of a stronger economic bond between the auditor and the client.

Research from the UK provides inconclusive evidence about the relation between providing non-audit services and audit quality and earnings quality. Ferguson Seow and Young (2004) found a positive relation between non-audit services and discretionary accruals, so an increase in earnings management, while Antle et al. (2006) found the exact opposite. So research using UK data provides inconclusive evidence if, and in which direction non-audit services affect conditional conservatism and earnings management. As stated earlier it is hard to predict the influence of cross selling non-audit services, because no academic consensus exists.

2.1.3 Recent legislation
Worldwide bookkeeping scandals and audit failures have led to additional regulation in most regions in the world. In the United States the provision of non-audit services is heavily restricted since the introduction of the Sarbanes-Oxley act in 2002. The SEC and other regulators argued that offering both audit and non-audit services will impair financial reporting quality. Act 201 of Sarbanes-Oxley prohibits an audit firm to cross sell the following services in the US: (a) bookkeeping, including other services related to the accounting
records or financial statements, (b) financial information system design and implementation, (c) valuation services including fair value opinions, (d) actuarial services, (e) internal audit outsourcing services, (f) management functions and human resources, (g) broker or dealer including investment advisory and banking services, (h) legal services and expert services unrelated to the audit and (i) any other service that the board of directors determines is off limits. Tax services that do not relate to any of the activities (a) till (h) are allowed if it is preapproved by the audit committee (adjusted from www.sec.gov/news/press/2003-9.htm). US listed companies are required by the SEC to disclose fees paid to the audit firm in four categories: audit, audit related, tax and other fees. It is suggested that audit related services do not impair audit objectivity, but tax and other fees could.

The European counterpart of the Sarbanes-Oxley act is known as the Directive on statutory audit of annual accounts and consolidated accounts or shorter the 8th Directive (Turley, 2004). This directive obliges EU member states to adjust their national laws in order to enforce disclosure of audit, audit related, tax and other fees paid to the auditor in the financial statements. A difference between SOX and the 8th Directive is that the latter allows audit firms to provide more non-audit services in comparison with SOX. Some European countries already restricted or prohibited the cross selling of non-audit services before the 8th Directive was issued, for example Belgium and France. According to Arruñada (1999) audit firms created separate subsidiaries to avoid regulation that prohibits the cross selling of non-audit services. The 8th Directive circumvents this behavior from audit firms by obliging clients to disclose paid fees to companies connected to the network of the audit firm. Failing to disclose the fees in a proper manner can have serious consequences since a qualified opinion must be issued by the auditor when fees are not disclosed.

The actual enforcement of the mandatory disclosure of fees paid to the auditor in the Netherlands is from 2008 onwards. The implementation of this directive in the Netherlands was somewhat sloppy. The goal of the 8th Directive is the disclosure of the worldwide total paid fees in the categories: audit, audit related, tax and other non-audit services. The same categories are used in the Dutch legislation and the Dutch implementation is found in the Dutch Civil Code article 2:382a BW. Public interest entities are obliged to report fees in the pre-mentioned four criteria. Not only payments of this year have to be reported, but also from last year in order to enhance comparability. This system seems self-explanatory but it is not. For example auditor Y sells audit and consultancy services to company X for a total of € 2,000,000. In the financial statements you expect to find a total of paid audit fees that is exactly € 2,000,000. This is not necessarily the case. If the company buys consultancy services directly from the consultancy branch the company is not obliged to disclose this in
its financial statements. In the Netherlands every audit firms is only allowed to conduct audits when a license from the Dutch Authority for Financial Markets is granted. So in theory it is possible that an audit firm is divided in several branches: audit, tax, it, mergers & acquisitions, management consultancy and so on. Every branch is a separate legal entity within a group and indeed this is how most audit firms are organized. Only the audit branch is required to have a license in order to conduct audits. Audit branches in other countries do not need to have a Dutch license when performing audits for foreign client branches even when the headquarter of the client is located in the Netherlands. Sticking to the letter of article 2:382a BW, fees paid to non-audit and foreign audit branches do not have to be disclosed since these are not allowed to conduct audits under Dutch legislation. So only when the audit branch consults or hires coworkers from other branches it is mandatory to disclose those fees in the financial statements. This may distort the disclosure of total fees, reducing the comparability between companies.

The Royal Dutch Institute of Certified Public Accountants (NIVRA) developed a framework in association with auditors to disclose all fees (figure 1) in order to prevent this distortion. However only 19 out of the 43 listed companies on the AEX and AMX applied this framework in their financial statements of 2009 (Breu, 2010).

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Figure 1, NIVRA audit fee disclosure model

Companies that disclose their paid audit fees under the NIVRA framework or are cross listed disclose additional information compared to companies that do not. I expect that these companies are less inclined to manage earnings and report more conservative compared to companies that do not. This additional information increases the risk of the audit firm, since litigation is more likely when an unqualified audit opinion is issued, while it should have been a qualified audit opinion. So auditors are probably less inclined to affect their independence when the NIVRA disclosure model is used or when companies are cross listed. Companies that are cross listed on multiple exchanges are in most cases obliged to disclose additional information. This leads to the following hypothesis:

H1 Total non-audit fees divided by total audit fees has an effect on additional information disclosure.
2.2  Explanations for earnings quality and audit quality

Prior research primarily used earnings management as a proxy for earnings quality (Antle et al., 2006; Chung & Kallapur, 2003; Ferguson, Seow & Young, 2004; Frankel, Johnson & Nelson, 2002). Why is accounting conservatism not considered by these researchers and used in combination with earnings management? The reliability of these studies are strengthened when both earnings management and accounting conservatism are used. This study does and in this section both discretionary accruals and conditional accounting conservatism are discussed.

2.2.1  Conditional accounting conservatism

According to Basu (1997) accounting conservatism is not a trivial subject in accounting since even as early as the fifteenth century accounting was conservative. If it is used for such extended periods it must have some function or advantage for companies.

Conservatism is usually summarized as recognize all losses, but recognize profits when these are “earned and measurable” (Collins et al., 2009). However, conservatism splits into two different kinds of conservatism (Ball & Shivakumar, 2005). First there is unconditional conservatism, which is also known as balance sheet conservatism (Feltham & Ohlson, 1995), where an underestimation of the book value of equity is present regardless of any good or bad news. An example is accelerated depreciation where the book value is lower than the economic value. Second, there is conditional conservatism also known as earnings conservatism (Basu, 1997), where an asymmetrical recognition of earnings is caused by good and bad news. Economic bad news will be recognized earlier than economic good news in the financial statements. For example inventory is valued using the lower of the historical cost or market value. This thesis focuses on the second kind of accounting conservatism: conditional accounting conservatism.

More conditional conservative companies have a greater timing difference between profit and loss recognition compared to less conservative companies (Feltham & Ohlson, 1995). As a consequence more conservative companies will understate their net assets in the current period. However, in theory, when a company does not buy or sell any of its assets in the future, the understatement will decline and eventually disappear. Of course, most if not all companies have to replace their assets or want to expand and are in need of additional assets. This is the reason why standard setters and academics criticize conservative accounting. However, the understatement of net assets could decrease moral hazard problems, like managers trying to influence firm performance measures in order to receive a
higher bonus payment. According to Holthausen & Watts (2001) conservative accounting is seen by asset-and-equity funds as a measure for higher accounting quality. The following reasoning is used: an equity owner can liquidate the company when it enters into financial distress, when the operating value of the firm is lower than the net asset value of the firm. This liquidation can even increase the value of the asset-and-equity fund. One of the reasons why these funds do not buy conservative companies in order to liquidate them is caused by uncertainty in the degree of conservatism. Conservative companies try to reduce the information asymmetry between managers, investors and other stakeholders. It is hard to classify companies as being more or less conservative and it requires a lot of knowledge and expertise in order to estimate the liquidation value of a company. These takeovers can also be prevented or delayed with takeover defenses like poison pills. These poison pills will lower the equity value of the investment fund, because a lot of new shares will be issued to other stockholders.

According to Watts (2003a) being more conservative in accounting has benefits. Benefits include deferring tax payments by acknowledging expenses earlier than earnings, a manner to lower moral hazard in contracts caused by information asymmetry, the reduction of litigation costs by understating net assets and a reduction of standard setters’ and regulators’ cost.

2.2.1.1 Taxation perspective

One of the foundations of the Dutch tax rules and Dutch tax jurisdiction is the so-called prudent man rule (Hoogeveen et al., 2008). In short this rule obliges companies to recognize profits when these are reasonably assured and recognize costs when these occur or when for example, according to Guideline for Annual Reporting in the Netherlands 221.324, a construction company is obliged to recognize a loss when he estimates that the project will be loss making. So the Dutch tax authorities enforce companies to adopt conservative accounting. Companies have to pay corporate tax when profits are realized. Profitable companies have an incentive to defer revenues in order to defer tax payments. Taxable income can be reduced by a larger asymmetric timing of the recognition of revenues and costs.

2.2.1.2 Contracting perspective

The contracting perspective is mostly used to lower moral hazard. Moral hazard occurs when there is a conflict of interest between management and the company, management and the investors, or even the company and the investors. An example of moral hazard is a chief
executive officer who wants to boost his bonus payment by building an empire that is not necessarily more profitable than the original smaller company. According to Watts (2003a) moral hazard will be present in financial reporting as long as the accounting measures of these reports inform investors about managerial performance. Managers want to influence these statements in order to boost their bonus plan or even to boost their image or career. More conservative accounting can reduce or even constrain this managerial behavior by postponing the recognition of revenues. Contracting parties like banks can develop debt covenants using conservative measures in order to lower moral hazard problems. Watts (2003a) mentions two attributes of accounting measures: timeliness and verifiability.

Timeliness, many managers suffer from horizon problems. Instead of maximizing firm value, managers will try to maximize their own wealth. A manager that is about to leave the company will suffer from horizon problems. This manager will have a short-term horizon and will try to maximize his compensation plan. This problem can be minimized by changing compensation plans in order to capture the effects of firm value in the period that managers take decisions and the effects of these decisions. Timeliness avoids or minimizes these horizon problems. Normally equity-based compensations are used to reduce agency problems, by aligning goals of managers and stockholders. Especially the combination of managerial ownership of the firm and longer tenure can reduce horizon problems. However, according to McConnel and Servaes (1990) managers start to entrench themselves. When managerial ownership exceeds approximately 40%, the agency problem increases as a result of entrenchment and accounting conservatism decreases. Another reason why this negative relationship between managerial ownership and accounting conservatism exists is that higher managerial ownership means that an individual manager has more to lose. When a company does not perform well or below investor expectations a manager can lose wealth. By decreasing conservatism and recognizing earnings more aggressively or even managing earnings can reduce or even prevent these personal losses.

Only events or accounting measures based on known events are verifiable. What investors, financial analysts or even the company itself estimates for the future is unverifiable. These uncertain estimates are almost never used for contracting, because it is hard to enforce unverifiable figures in a court of law.

So why is an asymmetrical timing of revenues and costs necessary? In many contracts the payoff is asymmetric and conservatism can increase the efficiency of contracts. This will be explained for debt contracts. Many companies need loans in order to keep their business running. Banks and other lenders face enormous risks, will the company pay the loan at
maturity or will the net assets be worth enough to cover the debt in case of bankruptcy? In the process of giving a loan to companies, lenders will analyze past and current financial statements in order to decide if the loan is granted. Watts (2003a) suggests that many debt contracts have a covenant that the value of net assets may not drop below a certain threshold. The loan has to be paid back immediately when the net value of assets drops below this threshold giving managers incentives to stay above this level. In this case the timely recognition of losses is more important than recognition of profits for the debt covenant. Watts (2003a) furthermore argues that lenders include rules in order to keep the value of net assets verifiable for example by omitting goodwill as an asset. So revaluation of goodwill will not influence the value of net assets. Another frequently used rule is the use of the lower of the market value or production cost for inventory. Summarizing: lenders use conservatism for the creation of debt covenants. However, this argument seems quite odd. It seems more obvious that a chief executive officer will try to influence the level of net assets upwards in order to prevent the situation where the company is actually just below the level of net assets and as a consequence faces immediate redemption of loans. This might mean that conservatism actually decreases the debt contract efficiency and this is also suggested by Gigler et al. (2009), where it is claimed that conservatism can be used before signing loans in order to lower the interest rate. However, once the contract is signed and managers want to influence the accounting numbers, it also appears that future (so unverifiable) prospects are used in debt covenant measures.

2.2.1.3 Litigation perspective

The accounting reports of companies should give a fair and true view of the financial statements and the other information disclosed in an annual report and other (financial) information that is made public. An investor that buys equity or even a minority interest from a company will file a lawsuit against this company when the net assets are overstated with the intention of deceiving stakeholders and manipulating financial statements. The court determines with the help of a registered CPA or company valuator if net assets are overstated or not. In countries like the United States legal damages are highly material and companies have to pay huge compensations and fines when the net assets are overstated. On the other hand when net assets are understated no compensations or fines have to be paid to the complaining investor (Caramanis & Lennox, 2008). Therefore companies listed on American stock exchanges tend to be more conservative in order to keep their litigation costs low. However, in the Netherlands these legal damages are usually lower compared to the US. So even though companies listed on Dutch stock exchanges still try to keep litigation costs low, this risk is less present in the Netherlands than in the United States.
I observe an asymmetrical event: overstating earnings is seen as a bad thing, while understating earnings (and often assets) is seen as a good thing or at least perceived as a neutral action. More conservative companies are more likely to understate earnings and assets and thus reducing auditor’s litigation and reputation risk. Reputation is one of the most important assets of an audit firm. If an auditor demands more conservative reporting it is likely that revenue and net assets are understated. This decreases the possibility of mandatory restatements and possible litigation and reputational damage. However clients may demand less conservative reporting when more non-audit fees are cross sold, because of increased economic bonding. This leads to the following hypothesis:

H2 Cross selling more non-audit services has an effect on accounting conservatism.

2.2.2 Earnings management
There is no uniform definition of earnings management. By using and combining frequently used definitions from Leuz, Nanda and Wysocki (2003) and Healy and Wahlen (1999) of earnings management provides us with the following definition: earnings management is the adjustment of reported economic performance by firm insiders to influence (contractual) outcomes or to mislead stakeholders. So earnings management is actually about manipulating a firm’s performance. This can be done to gain private benefits by misleading stakeholders or in order to influence contractual outcomes. An example is trying to prevent a breach of a debt covenant, which can be ‘prevented’ by managing earnings. This is the reason why earnings management is seen as a bad thing.

This definition is quite broad. This is intuitive since firms have many ways to manage their earnings. Examples include big bath accounting, cookie jar accounting, income smoothing, loss or profit minimization and so on. Companies are willing to ‘take’ a big bath when expectations are not achieved. This company will try to take a one-time charge against the income statement in order to lower their assets by expensing higher costs this year. This is done to increase future net income. The cookie jar practice is creating reserves in highly profitable years in order to offset these reserves in bad years. So a manager tries to smooth earnings by using cookie jar accounting. The most widely used method is income smoothing. The goal of income smoothing is reducing the volatility of a company’s earnings. Research from Burgstahler and Dichev (1997) showed that there is a kink in the earnings and stock return function, when companies just fail to meet expectations of analysts. There is a clear incentive to just beat or meet these expectations, since many managers are partly
compensated with stock options. Durtschi and Easton (2005) concluded that this kink could also be explained by other phenomena like scaling effects and sample biases. Notwithstanding, the findings from Burgstahler and Dichev (1997) are frequently used to explain the existence of earnings management.

DeGeorge, Patel and Zeckhauser (1999) discovered that earnings management is driven by several thresholds: positive profit reporting, sustain recent performance and meet analysts’ expectations. Skinner and Sloan (2002) found a very large negative reaction when expected returns are not met. However when expectations are met the positive reaction is much smaller. There is a clear incentive to manage earnings upward in order to meet expectations, because the potential downside is a much larger than the upside. When auditors discover earnings management an alarm bell should ring. Especially when earnings are materially managed the auditor is obliged to take action and an unqualified opinion should not be issued. However again when auditors cross sell more non-audit services it could be the case that the auditor tolerates such levels of earnings management. As discussed in section 2.1.2 litigation and reputational risks might reduce opportunistic behavior. An auditor might even condone less earnings management, because the potential litigation and reputational damage is too large and the auditor wants to decrease these risks. This leads to the following hypothesis:

H3  Cross selling more non-audit services has an effect on earnings management.

2.2.2.1 Discretionary accruals

This thesis focuses on accrual-based earnings management, so real earnings management is not considered in this thesis. Real earnings management goes further than just accounting adjustments. There are real economic consequences. An example of this is cutting down research & development budgets, which will increase profitability of this year, but will probably harm the company’s future profitability.

This thesis focuses on discretionary accruals. Total accruals can be divided in a non-discretionary part and a discretionary part. These non-discretionary accruals have nothing to do with earnings management and appear because of how the company works. The discretionary part can be more easily influenced or managed by management without real economic consequences. This is the reason why discretionary accruals are a usable proxy for earnings management. Dechow, Sloan and Sweeney (1995) evaluated five different models of earnings management. All five models are based on accruals. There are three
main issues when trying to measure earnings management: how to determine the
discretionary part of accruals, how to determine conditions which are believed to show
earnings management and the statistical performance of the test. Dechow, Sloan and Sloan (1995) concluded that the modified Jones model is the most powerful model, although there are still some issues regarding statistical specification and especially statistical power of this model. More recent research in the field of earnings management has led to an increased interest in discretionary working capital accruals (DeFond & Park, 2001). If the practice of cross selling non-audit services has an effect on earnings management, than this cross selling will lead to lower or higher discretionary working capital accruals compared to last year.
3 Methodology

The sample is described in section 3.1. In section 3.2 a measure for non-audit services and information disclosure is developed. Section 3.3 discusses three different measures used for conservatism and 3.4 reports on the development of an earnings management measure based on the DeFond & Park model (2001). The output of these models is interpreted and discussed in section 4.

3.1 Sample description

This research focuses on listed firms in the Netherlands on the AEX, AMX and AScX indices of the Amsterdam Stock Exchange. The initial sample consisted of 225 observations from which financial institutions, oil firms and real estate companies are removed. Financial institutions have special accounting rules, making them incomparable with other non-financial institutions. Oil companies have to revalue their oil supplies on a fair value basis, so when the market price for oil is high so is the profitability of these companies and vice versa. Real estate companies are not comparable to other companies, since the valuation of real estate can fluctuate heavily in a short time frame, without any change in economic substance (Guideline for Annual Reporting in the Netherlands 645, 212 and 213). From this subtotal an additional 10 observations are removed due to incomplete and missing data. The final sample consists of 163 observations. Figure 2 reports on the sample size.

<table>
<thead>
<tr>
<th>Initial sample size (N)</th>
<th>225</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial institutions, oil firms and real estate companies (N)</td>
<td>52</td>
</tr>
<tr>
<td>Subtotal (N)</td>
<td>173</td>
</tr>
<tr>
<td>Incomplete data (N)</td>
<td>10</td>
</tr>
<tr>
<td>Final sample size (N)</td>
<td>163</td>
</tr>
</tbody>
</table>

Figure 2, sample size

As stated in section 2.1.3 the implementation of the European 8th Directive and the actual enforcement in the Netherlands is from fiscal year 2008 onwards. There is no prescribed method to report the fees and as a consequence data on fees will be hand collected using financial statements of the years 2008, 2009 and 2010. The advantage of these years is that they are all in the financial crisis and since it is known that accounting conservatism decreases during financial crises, this bias is less prevalent than it would have been if pre-crisis data was included in the sample. The other needed data is collected using the Worldscope and the Orbis database. Data that was missing in these databases is collected by hand.
3.2 Measure of fee disclosure – non-audit services

As stated in section 2.1.2 it is impossible to measure profitability of every individual client. Since the introduction of art. 2:382a BW every public interest company\(^1\) is obliged to disclose all audit and non-audit fees in the financial statements. There are four categories: audit, audit related, tax and other fees. Audit services are clearly related to the financial audit and tax and other services are clearly non-audit services. However audit related services are less clear. According to PwC Accountants N.V. this category includes: due diligence research, special IT-audits, additional checks on pension liabilities, real estate, insurances and treasury and advisory on accounting information systems. Based on these activities audit related services are heading more towards non-audit services than audit services and therefore are classified as being non-audit services.

In section 2.1.2 it is argued that audit firms can earn quasi-rents when non-audit services are cross sold. The practice of cross selling non-audit services leads to higher profitability and potentially impairs the independence of the auditor. I hypothesized that higher levels of non-audit fees will have an effect on earnings management and accounting conservatism. As a measure non-audit fees are divided by total fees. Figure 3 reports on the descriptive statistics of this measure.

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>audit</th>
<th>audit related</th>
<th>tax</th>
<th>other</th>
<th>TNDTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>490*</td>
<td>32*</td>
<td>0*</td>
<td>0*</td>
<td>1,1350</td>
</tr>
<tr>
<td>50</td>
<td>1100*</td>
<td>132*</td>
<td>100*</td>
<td>59*</td>
<td>1,2867</td>
</tr>
<tr>
<td>75</td>
<td>3000*</td>
<td>400*</td>
<td>533,75*</td>
<td>285*</td>
<td>1,3845</td>
</tr>
</tbody>
</table>

\(^*\times 1.000\)

Figure 3, descriptive statistics on the four categories of fees and non-audit fees relative to total audit fees

TNDTF is total non-audit services, or the sum of audit related, tax and other fees, divided by total fees. From figure 3 it is clear that many companies do not buy tax and other services from their auditor.

As explained in section 2.1.3 companies are obliged to disclose audit fees based on art. 2:382a BW. However the Royal Dutch Institute of Chartered Accountants published a model under which fees paid to the network of the auditor are disclosed. The application of this model is voluntary and provides stakeholders with additional information. Disclosure of additional information is also present when a company is cross listed on multiple stock exchanges. All companies listed on the Dutch AEX, Midkap and AScX indices are divided in

\(^1\) Some companies are exempted under art. 2:382a BW sub 3 and other legislation.
three groups: companies who disclose: (a) no fees, (b) according to the law or (c) additional information. Figure 4 reports on the frequency on which companies disclose their paid fees according to the NIVRA model, disclose other non-mandatory information or are cross listed. This is the case in almost 70 percent of the observations. Almost 30 percent of the observations disclose the legal minimum and only a few companies do not disclose anything at all. Figure 5 shows this graphically.

<table>
<thead>
<tr>
<th>Information disclosure</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIVRA model</td>
<td>91</td>
<td>55,8</td>
</tr>
<tr>
<td>Multiple exchanges</td>
<td>14</td>
<td>8,6</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4,3</td>
</tr>
<tr>
<td>Total additional information</td>
<td>112</td>
<td>68,7</td>
</tr>
<tr>
<td>Minimum information</td>
<td>47</td>
<td>28,8</td>
</tr>
<tr>
<td>No disclosure</td>
<td>4</td>
<td>2,5</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4 and 5, descriptive statistics on information disclosure and a graphical representation*

The following model is developed for the disclosure of audit and non-audit fees:

\[
FD_{it} = \beta_0 + \beta_1 TNDTF_{it} + \beta_2 SIZE_{it} + \beta_3 TA_{it} + \beta_4 ROA_{it} + \beta_5 DR_{it} + \beta_6 LEV_{it} + \beta_7 DOCF_{it} + \beta_8 OCF_{it} + \beta_9 B4_{it} + \epsilon
\]

\( FD_{it} \) = This variable can have three different values: 0 if no fees are disclosed, 1 if fees are disclosed according to the law and 2 if fees are disclosed according to the law and additional information is disclosed by company \( i \) for fiscal year \( t \).

\( TNDTF_{it} \) = Total non-audit fees divided by total fees paid by company \( i \) for fiscal year \( t \).

\( SIZE_{it} \) = The market capitalization of company \( i \) at the end of year \( t \). Companies who have a larger market capitalization are expected to disclose more information. Larger companies face higher agency risks and these risks can be mitigated by disclosing additional information to stakeholders (Jensen & Meckling, 1976). Larger companies are furthermore expected to be more often cross listed and thus disclose more information.

\( TA_{it} \) = Total assets at year-end of company \( i \) for fiscal year \( t \). Larger companies are expected to have larger agency risks and additional disclosure of information could mitigate this. However larger companies are more likely to be followed by companies from the same industry. This might lower the level of disclosure. It is unknown which effect is stronger.
ROA\textsubscript{it} = Return on average assets of year t by company i. Well performing companies could disclose more information in order to show stakeholders that business is going well. However less disclosure is also possible, because competitors might gain benefits from this information. Therefore it is hard to predict the expected sign.

DR\textsubscript{it} = Dummy variable set at 1 when the return for firm i in fiscal year t is negative, otherwise it is 0.

LEV\textsubscript{it} = Year-end leverage which is calculated by dividing total liabilities by total assets for company i for fiscal year t. Higher levels of leverage are considered to be more risky. As a consequence investors will demand a higher compensation for this risk. This risk premium can be reduced by disclosing more information. Higher levels of leverage will lead to more disclosure.

DOCF\textsubscript{it} = Dummy cash flow from operations, which is 1 when OCF\textsubscript{it} is negative and vice versa, of company i in year t.

OCF\textsubscript{it} = Operational cash flow divided by beginning of the year total assets of company i in year t.

B4\textsubscript{it} = Dummy variable which is 1 when company i is audited by a big 4 auditor\textsuperscript{2} and 0 otherwise in year t.

The total sample is used for this measure. The mean and median of TNDTF is 27.43% and 28.67%, respectively. The mean market value of the company observations in this sample is just over 4 billion Euros. This amount is almost four and a half times larger than the median market value, which is almost 900 million Euros. The mean and median of leverage also differ in large extents. The mean leverage is 5.14 and median leverage is only 0.61. These examples may lead to concerns due to the skewness of the mean of companies with high market values and highly leveraged firms. Furthermore 160 of the 163 observations are audited by a big 4 auditor, which is due to the strong market position of these audit firms.

3.3 Measure of accounting conservatism – conditional

Three measures will be used in order to measure conservatism. First of all the Basu model (1997) which is based on the timeliness of the recognition of good and bad news in the financial statements. Second the Ball and Shivakumar model (2005) is used. This model focuses on operational cash flows and accruals. Lastly the market-to-book ratio, an adjusted market-to-book and the enterprise-to-book ratio will be used. Only companies that report additional information are considered in these measures.

\textsuperscript{2} PwC, Deloitte, Ernst & Young and KPMG are usually summarized as big 4.
**Basu’s model**

Conditional conservatism is about the asymmetrical recognition of earnings. Economic ‘bad news’ will be earlier recognized in the financial statements than economic ‘good news’. This asymmetry is measured by Basu’s timing (1997) of good and bad news. This model is also used for cross-sectional analysis purposes (Givoly & Hayn, 2002). The following formula is used:

\[
\frac{\text{EPS}_{it}}{P_{i,t-1}} = \beta_0 + \beta_1 \text{TNDTF}_{it} + \beta_2 \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} + \beta_3 \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} \\
+ \beta_4 \text{DR}_{it} + \beta_5 \text{DR}_{it} \times \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} + \beta_6 \text{DR}_{it} \times \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} \\
+ \beta_7 \text{R}_{it} + \beta_8 \text{R}_{it} \times \text{DR}_{it} + \beta_9 \text{R}_{it} \times \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} \\
+ \beta_{10} \text{R}_{it} \times \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} + \beta_{11} \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} \times \text{R}_{it} \\
+ \beta_{12} \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} \times \text{DR}_{it} + \epsilon_{it}
\]

\(\text{EPS}_{it}\) = Earnings per share of company i for fiscal year t.

\(P_{i,t-1}\) = Price per share for firm i at the beginning of fiscal year t.

\(\text{DlowTNDTF}_{it}\) = Dummy variable set at 1 when \(\text{TNDTF}_{it}\) is equal to or below the first quartile of the sample. The value is set at 0 when \(\text{TNDTF}_{it}\) is above the first quartile of the sample.

\(\text{DhighTNDTF}_{it}\) = Dummy variable set at 1 when \(\text{TNDTF}_{it}\) is equal to or above the third quartile of the sample. The value is set at 0 when \(\text{TNDTF}_{it}\) is below the third quartile of the sample.

\(\text{DR}_{it}\) = Dummy variable set at 1 when the return for firm i in fiscal year t (=R_{it}) is negative, otherwise it is 0. Basu (1997) used the return for firm i in fiscal year t over the 12 months beginning nine months prior to the end of fiscal year t. However Ball, Kothari & Robin (2000) also use a whole year since it actually does not affect the results compared to Basu’s original model.

\(\text{R}_{it}\) = Return of company i during fiscal year t.

The interaction of \(\text{R}_{it}\) and \(\text{DR}_{it}\) with \(\text{DhighTNDTF}\) on \(\text{TNDTF}\) (\(\beta_{11}\)) is expected to be significantly larger (smaller) compared to \(\beta_{10}\) when the practice of cross selling more non-audit services decreases (increases) conservatism. Basu (1997) stated in her first hypothesis that economic bad news is earlier recognized than economic good news. Givoly and Hayn (2000) have summarized the measures of conservatism for this model. A company that reports conservative is expected to have a significant positive \(\beta_8\), because it is expected that the response towards bad news is faster than the response towards good news. This \(\beta_8\)
would be significant lower (higher) when TNDTF<sub>it</sub> is high (low) and if indeed cross selling of non-audit services decreases (increases) conservatism.

There is a minor issue with this method. Market prices are the sum of the future cash flows, not only the current. This model expects that economic (bad) news has a direct influence on current earnings, while this does not have to be so.

**Ball & Shivakumar's model**

This model is also used for exploring the asymmetrical recognition of good and bad news. In this model stock returns are not used; accruals are. Losses are usually immediately charged against the income statement, while gains are recognized when actually realized. Ball and Shivakumar (2005) compared actual accruals defined as the sum of the changes in inventory, debtors and other accruals minus the sum of creditors, other current liabilities and depreciation expenses. For this research the following model is used:

\[
\text{ACC}_{it} = \beta_0 + \beta_1 \text{TNDTF}_{it} + \beta_2 \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} + \beta_3 \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} \\
+ \beta_4 \text{DOCF}_{it} + \beta_5 \text{OCF}_{it} + \beta_6 \text{DOCF}_{it} \times \text{OCF}_{it} + \beta_7 \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} \\
\times \text{DOCF}_{it} + \beta_8 \text{DhighTNDTF}_{it} \times \text{TNDTF}_{it} \times \text{DOCF}_{it} + \beta_9 \text{DlowTNDTF}_{it} \times \text{TNDTF}_{it} \times \text{DOCF}_{it} \times \text{OCF}_{it} \\
+ \beta_{10} \text{TNDTF}_{it} \times \text{DOCF}_{it} \times \text{OCF}_{it} + \beta_{11} \text{TNDTF}_{it} \times \text{DOCF}_{it} \times \text{OCF}_{it} \\
\times \text{DOC}_{it} \times \text{OCF}_{it} + \beta_{12} \text{TNDTF}_{it} \times \text{DOC}_{it} \times \text{OCF}_{it} + \varepsilon_{it}
\]

\[
\text{ACC}_{it} = \text{Total accruals of firm } i \text{ in year } t.
\]

A decrease in auditor independence is supposed to give managers more possibilities to manage earnings and lower conservatism. Earnings are usually managed upward in order to prevent a loss, to prevent debt covenant violations and so on. This would mean that \(\beta_9\) and \(\beta_{10}\) is expected to have a positive coefficient and \(\beta_{11}\) and \(\beta_{12}\) is expected to have a negative coefficient. The coefficient of the interaction term of DhighTNDTF<sub>it</sub>, DOCF<sub>it</sub> and OCF<sub>it</sub> will have a significant more negative coefficient compared to the interaction term of DlowTNDTF<sub>it</sub>, DOCF<sub>it</sub> and OCF<sub>it</sub> if the cross selling of more non-audit services leads to reduced conservatism and possibly auditor independence.

**Market-to-book ratio**

The market-to-book ratio is used as an additional measure. A conservative company will try to have a lower book value relative to the market value regardless of any good or bad news. For example, accelerated depreciation causes the book value to be lower than the economic
value. So the lower the book value compared to the market value is, the higher the market-
to-book ratio will be and the more conservative the firm is considered to be. A conservative
compny is believed to have a market-to-book ratio that is larger than one. Feltham and
Ohlson (1995) suggest that under normal conditions the total market value of a company, so
the number of outstanding shares times the market price, is equal to total assets according to
the balance sheet. However, when the book value of total assets is lower compared to the
market value, the market-to-book ratio will be larger than one and thus more conservative
companies have a market-to-book ratio larger than one. However, differences between
market value and book value are not exclusively caused by conservatism (McNichols, Rajan
& Reichelstein, 2010). Companies have to expense R&D, while the market value could
increase, because investors expect that R&D will increase future profits. According to
McNichols, Rajan and Reichelstein (2010) the traditional market-to-book ratio should be
adjusted when used for measuring conservatism. This adjusted formula is used in this
research:

\[
\text{Market-to-book ratio adj.} = \frac{\sum \text{Market value} - \text{Financial assets}}{\sum \text{Bookvalue of total assets} - \text{Financial assets}}
\]

According to McNichols, Rajan and Reichelstein (2010) financial assets include working
capital and the net of all liabilities. Only the operating assets will influence the outcome of the
market-to-book ratio, by deducting the financial assets in both the numerator and
denominator of the formula. Despite the adjustments in the formula, it is still believed that the
market-to-book ratio of a conservative company is larger than one, this also holds for
aggregated market-to-book ratios. However I believe it is more useful to use enterprise-to-
book value. Enterprise value is market capitalization adjusted by adding debt, preferred stock
capital and minority interests and by deducting cash and cash equivalents.

The effect of conservatism is measured by analyzing these ratios. In order to visualize these
effects a scatterplot is used.

3.4 Measure of earnings management – discretionary accruals

Most research in earnings management splits total accruals in two groups: discretionary
accruals and non-discretionary accruals. The modified Jones model also uses this
classification (Dechov, Sloan & Sweeney, 1995). However this model is not applied in this
thesis, because this model needs a large sample. More recent research in the field of
earnings management examines discretionary accruals even further. DeFond and Park
(2001) focused on the abnormal working capital part of discretionary accruals. Only companies that report additional information are considered in these measures.

Section 2.1.2 and 2.2.2 discussed earnings management and non-audit services. As discussed in sections 2.1.2 and 2.2.1.3 litigation and reputational risks incentivize auditors to be independent. Managers are able to manage their earnings more when cross selling non-audit services will reduce auditor independence. This change in earnings management will increase or decrease discretionary accruals including the working capital part. An increase is expected when auditor independence is impaired and vice versa. The comparison between actual working capital accruals and abnormal working capital accruals is used in order to explain differences in the degree of earnings management.

The following model is used for earnings management and non-audit services:

\[
WCDA_{it} = \beta_0 + \beta_1 TNDTF_{it} + \beta_2 D\text{low}TNDTF_{it} \times TNDTF_{it} + \beta_3 D\text{high}TNDTF_{it} \times TNDTF_{it} \\
+ \beta_4 \text{SIZE}_{it} + \beta_5 TA_{it} + \beta_6 ROA_{it} + \beta_7 DR_{it} + \beta_8 LEV_{it} + \beta_9 DOCF_{it} + \beta_{10} OCF_{it} \\
+ \beta_{11} B4 + \varepsilon
\]

\( WCDA_{it} \) = Abnormal working capital part of discretionary accruals for company \( i \) in year \( t \). This variable is based on a modification of the DeFond & Park model (2001).

In order to calculate \( WCDA_{it} \) the following formula is used:

\[
WCDA_{it} = WC_{it} - \frac{WC_{it-1}}{S_{it-1}} \times S_{it}
\]

\( WC_{it} \) = Working capital excluding cash of company \( i \) in year \( t \). This is calculated as following: (current assets – cash – short-term investments) – (current liabilities – short term debt).

\( S_{it} \) = Sales generated by company \( i \) in year \( t \).

If the practice of cross selling more non-audit services increases the level of earnings management then \( \beta_3 \) should have a significant larger coefficient compared to \( \beta_2 \) and vice versa.

Figure 6 reports on the mean and quartiles of WCDA. The mean abnormal working capital accruals are much smaller than the first quartile. This means that the distribution is skewed.
due to companies that have either an enormous increase in $\text{WC}_{t-1}/\text{St}_{t-1}$ or an increase in current year sales.

<table>
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<tbody>
<tr>
<td>Mean</td>
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<tr>
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<td>– 49,496,063</td>
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<td>– 4,358,568</td>
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<td>75</td>
<td>– 32,613,010</td>
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</table>

*Figure 6, descriptive statistics on the abnormal working capital part of discretionary accruals*
4 Results

This section is a continuation of section 3 and discusses the results from applying the research methodology. Section 4.1 focuses on the correlations between the independent variables used in the various models. In section 4.2 the fee disclosure model from section 3.2 is applied in order to test the hypothesis that is stated in section 2.1.3. Section 4.3 reports on the methods used for the measurement of accounting conservatism. These models are discussed in section 3.3. The tested hypothesis is stated in section 2.2.1.3. The final subsection reports on the DeFond and Park measure (2005) for earnings management, which is used to test the third hypothesis stated in section 2.2.2.

4.1 Correlations

This section reports on the correlations of the various models that are being used in this thesis. First the correlations of the fee disclosure model are discussed. Second the correlations of the models used for measuring accounting conservatism, which includes the Basu model (1997), Ball & Shivakumar model (2005) and market-to-book model, are discussed. Finally, the correlations between the independent variables in the DeFond & Park model (2001) are discussed.

4.1.1 Correlations – Fee disclosure model

Figure 7 reports on the correlations between the independent variables used in the fee disclosure model. The total non-audit services relative to total audit services is only correlated with operational cash flows divided by beginning of the year total assets at a 10 percent level. Apparently company size, which can be defined as both the market capitalization and total assets, is not correlated with the level of bought non-audit services. The 1 percent significance level of the correlation between market capitalization and total assets is not a surprise. The significant correlation at a 10 percent level between the market capitalization and the loss reporting dummy variable implies that smaller companies in terms of market capitalization are more likely to report a loss. Return on assets is negatively correlated with loss reporting and negative cash flows from operating activities. This is expected, since the numerator of ROA is the return of the company. According to figure 7 loss reporting is negatively correlated with having a big 4 auditor at a 1 percent level. Remember from section 3.2, only a few companies in the sample are being audited by a non-big 4 auditor so this result might be biased. The correlation at a 1 percent level between leverage and negative operating cash flows is not a surprise. The correlation between having a negative operating cash flow and operating cash flows, which are corrected for the beginning of the year total assets, is also significant at a 1 percent level.
Figure 7, Pearson Correlation matrix of the independent variables used in the Fee disclosure model

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<th>TA</th>
<th>ROA</th>
<th>DR</th>
<th>LEV</th>
<th>DOCF</th>
<th>OCF</th>
<th>B4</th>
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<td>0.062</td>
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*, **, *** Pearson Correlation significant at <0.1; <0.05; and <0.01 (two-tailed)

4.1.2 Correlations – Accounting conservatism models

This section reports on the correlations of the various models, which are used for measuring conservatism.

Figure 8 consists of a Pearson correlation matrix, which reports on the correlations between the various independent variables used in the Basu model (1997). The ratio of non-audit services relative to total audit services is not correlated with loss reporting and the return of the company. It is correlated at a 10 percent level with the return of loss reporting companies. This correlation holds for observations up to the first quartile of non-audit services relative to total audit services, however this correlation is nonexistent in the observations from the third quartile onwards. It is surprising to notice that the return of companies that buy a lot of non-audit services compared to total services are never correlated with the return of loss reporting firms. This correlation is present at a 1 percent level for companies that buy low levels of non-audit services.

The independent variables used in the Ball and Shivakumar model (2005) are reported in figure 9. The ratio of non-audit services divided by total services is not correlated with negative cash flows from operations, nor is it correlated with operational cash flows divided by beginning of the year total assets. This also holds for companies that buy low and high amounts of non-audit services compared to total audit services. The correlation between operational cash flows relative to beginning of the year total assets and high levels of non-audit services when reporting a negative cash flow from operations is correlated at a minimum of 5 percent significance, while for low levels of non-audit services no correlation is present.
### Pearson Correlations Basu Model

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<th>DhighTNDTF x TNDTF</th>
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<th>DR x DlowTNDTF x TNDTF</th>
<th>DR x DhighTNDTF x TNDTF</th>
<th>R</th>
<th>DR x R</th>
<th>R x DlowTNDTF x TNDTF</th>
<th>R x DhighTNDTF x TNDTF</th>
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<th>DhighTNDTF x TNDTF x R x DR</th>
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</tr>
<tr>
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<td>0.063</td>
<td>-0.015</td>
<td>-0.246***</td>
<td>-0.729***</td>
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<td>0.298***</td>
<td>0.560***</td>
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<td>0.316***</td>
<td>-0.198**</td>
<td>-0.030</td>
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<td>0.153</td>
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<td>0.029</td>
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<td>0.679***</td>
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* ** *** Pearson Correlation significant at < 0.1; < 0.05; and < 0.01 (two-tailed)

Figure 8, Pearson Correlation matrix of the independent variables used in the Basu model (1997)
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<th>OCF</th>
<th>DOCF x OCF</th>
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<th>DhightNDF x TNDTF x DOCF</th>
<th>DlowTNDTF x TNDTF x OCF</th>
<th>DhightNDF x TNDTF x OCF</th>
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<th>DhightNDF x TNDTF x DOCF x OCF</th>
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<tr>
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<td>DhightNDF x TNDTF</td>
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* ** *** Pearson Correlation significant at <0.1; <0.05; and <0.01 (two-tailed)

Figure 9, Pearson Correlation matrix of the independent variables used in the Ball & Shivakumar model (2005)
Figure 10 reports on the correlation between the market-to-book ratio, adjusted market-to-book ratio and the enterprise-to-book ratio. As stated earlier the adjusted market-to-book ratio adjusts the market value and the value of total assets by subtracting in both the numerator and denominator financial assets (McNichols, Rajan & Reichelstein, 2010). Financial assets are defined as working capital plus total liabilities. Enterprise value is an alternative for the market value. This enterprise value is the market value including debt, preferred share capital, minority interests and excluding cash. The market-to-book ratio is significantly correlated with the adjusted market-to-book ratio at a 5 percent level and it is significantly correlated with the enterprise-to-book ratio at a 1 percent level. A significant correlation between the adjusted market-to-book ratio and the enterprise-to-book ratio is nonexistent.

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*, **, *** Pearson Correlation significant at <0.1; <0.05; and <0.01 (two-tailed)

Figure 10, Pearson Correlation matrix of the MTB, Adjusted MTB and ETB model

4.1.3 Correlations – Earnings management model

An accrual model is used in order to measure earnings management. The used measure is developed by DeFond & Park in 2005 and focuses on the working capital part of accruals.

Figure 11 reports on the correlations between the independent variables. The ratio of non-audit services divided by total services has a negative correlation with total assets at year-end at a 10 percent significance level. This implies that higher levels of non-audit services are correlated with lower total assets. This can be caused by scaling effects since the absolute value of total assets varies a lot across companies. A positive correlation is present between total year-end assets and leverage. This is not illogical, since total assets are equal to shareholders’ equity plus total debt. Companies that are being audited by big 4 auditors have a negative correlation with loss reporting at a 1 percent significance level. This negative correlation was also present in figure 9, which reports on the correlations of the fee disclosure model, also at a 1 percent significance level.
### Pearson Correlations DeFond & Park Model

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<th>LEV</th>
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* ** *** Pearson Correlation significant at < 0.1; < 0.05; and < 0.01 (two-tailed)

Figure 11, Pearson Correlation matrix of the independent variables used in the DeFond & Park model (2001)
4.2 Fee disclosure – non-audit services

This section reports on the summary statistics of the fee disclosure model, which is needed in order to test the first hypothesis.

Section 3.2 reported on the fee disclosure model and on the descriptive statistics of this model. One of the findings is that only a few companies did not disclose the amount of paid audit fees. Almost 30 percent of the companies in this sample reported the legal minimum regarding the disclosure of paid audit fees as can be found in art. 382a:2 BW. The remaining 70 percent reported paid audit fees according to the law with additional information. This is done by applying the NIVRA disclosure model or by being listed on multiple stock exchanges.

Only the year-end total assets of a company and the total of non-audit services divided by the total of audit and non-audit services have significant coefficients in this model. This model explains 14% of the variation in the dataset.

The coefficient of company size, defined as the year-end total assets is positive on the degree of information disclosure at a 1 percent significance level. This is just as expected. Larger companies, in terms of total assets, are more likely to have more, and, or larger stakeholders and these stakeholders demand information. Political reasons may also exist; larger companies are more likely to be closely watched by the government and additional regulation can be prevented when these companies voluntarily disclose more information. Combined, stakeholder pressure may lead to additional information disclosure.

The ratio of total non-audit fees relative to total fees has a positive coefficient of 0.445 on the level of disclosure at a 5 percent significance level. The implication of this finding is that companies that buy a lot of non-audit services compared to total audit services will disclose more information about paid audit fees. Hypothesis 1 stated that the total of non-audit fees divided by total audit fees an effect on the voluntary disclosure of more information. This hypothesis is accepted since the coefficient is positive.
### Summary statistics Fee disclosure model

\[
FD_{it} = \beta_0 + \beta_1 \text{TNDTF}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{TA}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{DR}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{DOCF}_{it} + \beta_8 \text{OCF}_{it} + \beta_9 \text{B4}_{it} + \varepsilon
\]

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</table>

* *, ** *, *** significance at <0,1; <0,05; and <0,01 (two-tailed)

\[ R^2 = 0.140 \]

**Figure 12, summary statistics of the Fee disclosure model**

### 4.3 Accounting conservatism – conditional

This section reports on the measures that are being used for accounting conservatism. These models are discussed in section 3.3. First the summary statistics from the Basu model (1997) are discussed, then the summary statistics from the Ball & Shivakumar (2005) model. Finally, the market-to-book, adjusted market-to-book and the enterprise-to-book ratio are graphically displayed and an analysis on these graphs is conducted. Only observations of companies that disclose more information than the legal minimum are considered in these measures.

**The Basu model**

The total of non-audit services divided by total services, the dummy for loss reporting, dummy for loss reporting interacting with the third quartile and onwards of companies that buy relative large amounts of non-audit services, the return of loss reporting companies, the interaction term of the return of companies that are loss reporting on relative high levels of non-audit services have significant coefficients in this model. This model explains 38.8% of the variation in the dataset.

The coefficient of non-audit services divided by total services is positive and significant at a 5 percent significance level. This means that cross selling more non-audit services increases
accounting conservatism. The coefficient of the loss reporting dummy is negative and significant at a 1 percent level. It is concluded that loss reporting firms are less conservative in their reporting according to this model, because the coefficient is negative at a 1 percent significance level. The coefficient of loss reporting companies and relative high levels of non-audit services is positive and significant at a 5 percent level. It is significant at a 1 percent significance level when the returns of loss reporting companies are considered. Both coefficients are positive. The same coefficients of companies that buy relative low amounts of non-audit services are not significant. The coefficient of loss reporting firms that buy a low amount of non-audit services is over eight times as large compared to the coefficient of companies that buy high amounts of non-audit services. This supports hypothesis 2, which claims that the practice of cross selling a lot of non-audit services has an effect on accounting conservatism. As a consequence earnings quality is affected.

**Summary statistics Basu model**

\[
\frac{E_{it}}{R_{it-1}} = \beta_0 + \beta_1 \text{TNDTF}_it + \beta_2 \text{DlowTNDTF}_it \times \text{TNDTF}_it + \beta_3 \text{DhighTNDTF}_it \times \text{TNDTF}_it \\
+ \beta_4 \text{DR}_it + \beta_5 \text{DR}_it \times \text{DlowTNDTF}_it \times \text{TNDTF}_it + \beta_6 \text{DR}_it \times \text{DhighTNDTF}_it \times \text{TNDTF}_it \\
\times \text{TNDTF}_it + \beta_7 \text{R}_it + \beta_8 \text{R}_it \times \text{DR}_it + \beta_9 \text{R}_it \times \text{DlowTNDTF}_it \times \text{TNDTF}_it \\
+ \beta_{10} \text{R}_it \times \text{DhighTNDTF}_it \times \text{TNDTF}_it + \beta_{11} \text{DlowTNDTF}_it \times \text{TNDTF}_it \times \text{R}_it \\
\times \text{DR}_it + \beta_{12} \text{DhighTNDTF}_it \times \text{TNDTF}_it \times \text{R}_it \times \text{DR}_it + \varepsilon_{it}
\]

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<td>-4,518</td>
<td>0,000   ***</td>
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<tr>
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<td>5,170</td>
<td>0,265</td>
<td>1,216</td>
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</tr>
<tr>
<td>DR x DhighTNDTF x TNDTF</td>
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<td>0,337</td>
<td>2,202</td>
<td>0,030   **</td>
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<td>-0,071</td>
<td>0,944</td>
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<td>-0,267</td>
<td>-2,001</td>
<td>0,049   *</td>
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<td>0,521</td>
<td>3,793</td>
<td>0,000   ***</td>
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*.*, **,**,* significance at <0,1; <0,05; and <0,01 (two-tailed)

\[R^2 = 0,388\]

*Figure 13, summary statistics of the Basu model*
The Ball & Shivakumar model

In section 3.3 it is stated that $\beta_9$ and $\beta_{10}$ are expected to have positive coefficients and $\beta_{11}$ and $\beta_{12}$ are expected to have negative coefficients. The coefficient of the interaction term of $D_{highTNDTF}$, $DOCF$ and $OCF$ will have a significant higher or lower coefficient compared to the interaction term of $D_{lowTNDTF}$, $DOCF$ and $OCF$ if cross selling more non-audit services has an effect on accounting conservatism. However only the constant or intercept is significant at a 10 percent level and not one of the other coefficients is significant.

Nonetheless this model explains 6.4% of the variation in the dataset. Evidence about whether the cross selling of relative high levels of non-audit services affects accounting conservatism remains inconclusive.

Summary statistics Ball & Shivakumar model

\[
\begin{align*}
ACC_{it} &= \beta_0 + \beta_1TNDTF_{it} + \beta_2D_{lowTNDTF} \times TNDTF_{it} + \beta_3D_{highTNDTF} \times TNDTF_{it} \\
&+ \beta_4DOCF_{it} + \beta_5OCF_{it} + \beta_6DOCF \times OCF_{it} + \beta_7D_{lowTNDTF} \times TNDTF_{it} \times DOCF_{it} + \beta_8D_{highTNDTF} \times TNDTF_{it} \times DOCF_{it} + \beta_9D_{lowTNDTF} \times TNDTF_{it} \times OCF_{it} \\
&+ \beta_{10}D_{highTNDTF} \times TNDTF_{it} \times DOCF_{it} + \beta_{11}D_{lowTNDTF} \times TNDTF_{it} \times OCF_{it} \times DOCF_{it} + \beta_{12}D_{highTNDTF} \times TNDTF_{it} \times OCF_{it} + \varepsilon_{it}
\end{align*}
\]

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<th>Standardized coefficients</th>
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<td>DOCF x OCF</td>
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<td>DlowTNDTF x TNDTF x DOCF</td>
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<td>DhighTNDTF x TNDTF x DOCF x OCF</td>
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*, **, *** significance at <0.1; <0.05; and <0.01 (two-tailed)

$R^2 = 0.064$

Figure 14, summary statistics of the Ball & Shivakumar model
The MTB, Adjusted MTB and ETB model

The market-to-book ratio is an alternative and very simplistic measure for accounting conservatism. A more conservative company is believed to have a lower book value of total assets compared to the market value (Feltham & Ohlson, 1995). For example, accelerated depreciation causes the book value to be lower than the true economic value, which is more likely captured in the market price of shares. So the lower the book value compared to the market value is, the higher the market-to-book ratio will be and the more conservative the firm is considered to be. A conservative company is believed to have a market-to-book ratio that is larger than one. Feltham and Ohlson (1995) suggests that under normal conditions the total market value of a company, so the number of outstanding shares times the market price, is equal to total assets reported on the balance sheet. However, when the book value of total assets is lower compared to the market value, the market-to-book ratio will be larger than one and thus more conservative companies have a market-to-book ratio greater than one. The adjusted market-to-book ratio broadens the dispersion of observations. But companies that report a ratio larger than 1 are again considered to be more conservative. The same assumption holds for the enterprise-to-book ratio. Since the enterprise value is the market capitalization plus debt and minus cash. This is what it would actually cost, or at least in theory, to buy another company.

Figure 15 reports on these three ratios in a scatterplot. The horizontal axis is used to display the value of the ratios and the vertical axis displays the ratio of paid non-audit fees relative to total paid fees. The vertical axis crosses the horizontal axis at a value of 1. All observations on the right-hand side of this are considered to be conservative. However most companies in this sample do not report conservative, because most observations are on the left-hand side. This graph does not provide us with additional information whether the practice of cross selling non-audit services influences the level of accounting conservatism.

In order to further examine this issue, the adjusted market-to-book ratio is dropped. The new graph is named figure 16. It is visible that most conservative reporting companies have spent about 12 to 45 percent of total paid audit fees on non-audit services. However most non-conservative reporting companies are spending about the same proportion of total fees on non-audit fees compared to more conservative reporting companies.

These graphs do not provide us with conclusive evidence that an effect between the cross selling of more non-audit services and accounting conservatism exists.
Figure 15, scatterplot of the sample using the market-to-book, adjusted market-to-book and enterprise-to-book ratios

Figure 16, scatterplot of the sample without the adjusted market-to-book ratio
Only the Basu model (1997) supports hypothesis 2. This hypothesis claims that the practice of cross selling more non-audit services has an effect on accounting conservatism. This is not supported by the Ball and Shivakumar model (2005), nor is it supported by the scatterplots of the market-to-book, adjusted market-to-book and enterprise-to-book ratios. The total evidence is inconclusive if, and what effect the practice of cross selling more non-audit services has on accounting conservatism. Therefore the second hypothesis is rejected.

4.4 Earnings management – discretionary accruals

Earnings management is usually measured with a kind of accrual model. This thesis uses a model that focuses on working capital accruals. Figure 17 reports on the summary statistics of the DeFond & Park model (2005).

In section 2.2.2 the theory and hypothesis is explained. The third hypothesis stated that the practice of cross selling more non-audit services has an effect on the level of earnings management.

The coefficient of companies that buy large amounts of non-audit services compared to total services is positive and significant at a 11 percent level. The non-audit fees relative to total fees for companies that purchase low amounts of non-audit services is very negative and significant at a 36 percent level. This result would be interesting if these coefficients were to be significant. In that case this would mean that companies that buy relatively large amounts of non-audit services are more likely to be engaged in more earnings management. This would lead to a lower earnings quality. Since these coefficients are not significant the evidence remains inconclusive and the third hypothesis is rejected.

The only significant coefficient in this model is the operating cash flow divided by beginning of the year total assets. The statistical power is not high since it is only significant at a 10 percent level. This coefficient is negative, implying that higher levels of operating cash flows relative to the beginning of the year total assets lower working capital accruals and thus lower levels of earnings management are present.
### Summary statistics DeFond & Park model

$$WCDA_{it} = \beta_0 + \beta_1 TNDTF_{it} + \beta_2 \text{DlowTNDTF}_{it} \times TNDTF_{it} + \beta_3 \text{DhighTNDTF}_{it} \times TNDTF_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{TAT}_{it} + \beta_6 \text{ROA}_{it} + \beta_7 \text{DR}_{it} + \beta_8 \text{LEV}_{it} + \beta_9 \text{DOCF}_{it} + \beta_{10} \text{OCF}_{it} + \beta_{11} B4 + \varepsilon$$

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* *, **, *** significance at <0,1; <0,05; and <0,01 (two-tailed)

$R^2 = ,127$

*Figure 17, summary statistics of the DeFond & Park model*

### 4.5 Summary

Figure 18 summarizes sections 4.2, 4.3 and 4.4 and reports on which hypotheses are accepted, rejected or remain inconclusive. The first hypothesis is accepted, while the other two hypotheses remain inconclusive due to the low significance of the coefficients.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Accepted</th>
<th>Rejected</th>
<th>Inconclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Total non-audit fees divided by total audit fees has an effect on additional information disclosure.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Cross selling more non-audit services has an effect on accounting conservatism.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3 Cross selling more non-audit services has an effect on earnings management.</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Figure 18, summary of the results from testing the hypotheses*
5 Summary & conclusions, limitations and future research

This is the final section of this thesis. Section 5.1 summarizes this thesis. This summary includes information on relevant literature and the used research method. Also the main conclusions of this thesis are presented in that section. Every research has its own limitations. Some are caused by the dataset, while others are caused by inherent limitations. These limitations are discussed in section 5.2. These limitations can potentially improve the quality of future research and some improvements are given. Section 5.3 reports on possibilities for future research.

5.1 Summary & main conclusions

The practice of selling non-audit services by audit firms, who also audit the client, is heavily debated. An example is the green paper, which was published at the end of November 2011 by the European Commissioner for Internal Market and Services, about current issues in the audit industry and proposals to solve these problems. These proposals are made to decrease the expectation gap between the auditor’s role and public belief. The proposals would also increase the audit quality of financial statements of public interest entities. Auditor independence in fact and in appearance can differ. The value of an audit decreases when users are not convinced that the auditor is independent, although he might be fully independent. Merely the possibility of a conflict of interest will lower the value of an audit. Krishnan, Sami and Zhang (2005) confirmed that the market expects a decrease in auditor independence when non-audit services are cross sold.

Van Schaik (2003) claims that in the beginning of the twenty-first century the cross selling of non-audit services increased strongly. The research question in this thesis is the following: Does cross selling of non-audit services affect earnings quality and audit quality in the Netherlands?

Data is collected by analyzing financial statements of companies that are listed on the AEX, AMX and AScX indices in order to collect the paid audit fees and all other data that is needed for this thesis. Public interest entities need to disclose their paid audit fees in four categories: audit, audit related, tax and other services. These categories are found in article 2:382a BW. This system seems quite easy but as stated in section 2.1.3, it is not. An audit firms is only allowed to conduct audits in the Netherlands when a license from the Dutch Authority for Financial Markets is granted. So it is likely that an audit firm is divided in several branches: audit, tax, it, mergers & acquisitions, management consultancy and so on. Every branch is a separate legal entity within a group and only the audit branch is required to have a license in
order to conduct audits. Audit branches in other countries do not need to have a Dutch license when performing audits for foreign client branches even when the headquarter of the client is located in the Netherlands. Sticking to the letter of article 2:382a BW, fees paid to non-audit and foreign audit branches do not have to be disclosed since these are not allowed to conduct audits according to Dutch law. So only when the audit branch consults or hires coworkers from other branches it is mandatory to disclose those fees in the financial statements. This may distort the disclosure of total fees, reducing the comparability between companies. However the Royal Dutch Institute of Certified Public Accountants (NIVRA) developed a framework that prevents this information bias. Companies that apply this model disclose fees paid to the network of the audit firm. Other companies also disclose on a voluntary basis additional information compared to the legislative requirements. In sections 2.1.1 till 2.1.3 aspects of the practice of cross selling non-audit services and information disclosure are discussed and hypothesized. The first hypothesis is accepted. So cross selling more non-audit services relative to total audit fees has an effect on additional information disclosure. Further analysis shows that companies that buy relatively large amounts of non-audit services are more likely to disclose more information. This additional disclosure can be done by applying the NIVRA model, being listed on multiple stock exchanges and so on.

I report a positive effect on the amount of information that is disclosed in the financial statements and companies that buy relative large amounts of non-audit services relative to total audit services. However evidence from models that are being used to measure accounting conservatism and earnings management provide us with inconclusive evidence. I do not find evidence that the practice of cross selling non-audit services affects earnings quality and audit quality in the Netherlands. This is in line with prior research, which is based on UK data, which also did not find conclusive evidence about the relationship between the practice of cross selling relative large amounts of non-audit services on earnings management.

In sections 2.2.1 till 2.2.1.3 it is concluded that reputation is one of the most important assets of an audit firm. If an auditor demands more conservative reporting it is likely that revenue and net assets are understated. This decreases the possibility of mandatory restatements, litigation risk and reputational damage. However clients may demand less conservative reporting when more non-audit services are cross sold, because of increased economic bonding. If indeed the cross selling of more non-audit services would lead to a decrease in auditor independence than less accounting conservatism is expected. This is supported by the results from the Basu model (1997). So there is an effect between the practice of cross selling non-audit services on accounting conservatism. Futher analysis showed that the
practice of cross selling more non-audit services impairs accounting conservatism. However this is not supported by the results from the Ball and Shivakumar model (2005), nor is it supported by the graphical results from the market-to-book, adjusted market-to-book and enterprise-to-book ratios. So the evidence of the consequences of cross selling non-audit services on accounting conservatism is not conclusive. The second hypothesis is rejected.

In section 2.2.2 it is concluded that managers have clear incentives to manage earnings upward in order to meet their expectations, because the potential downside is much larger than the upside (Skinner & Sloan, 2002). When auditors discover material earnings management a red flag should be raised. Especially when earnings are materially managed the auditor is obliged to take action and an unqualified opinion should not be issued. However again when auditors cross sell more non-audit services it could be the case that the auditor tolerates such levels of earnings management. As discussed in section 2.1.2 litigation and reputational risks might reduce opportunistic behavior. An auditor might even condone less earnings management, because the potential litigation risk and reputational damage is too large and the auditor wants to decrease these risks. The accrual model from DeFond and Park (2005) is used for measuring earnings management. It appears that the coefficient of companies that buy a lot of non-audit services compared to total services is positive and vice versa. This might imply that cross selling large amounts of non-audit services impairs earnings quality. However the coefficients are not significant, this is probably due to the small sample size. The third hypothesis, which stated that cross selling more non-audit services has an effect on earnings management, is rejected.

Overall I find evidence that cross selling more non-audit services is correlated with increased voluntary information disclosure. I do not find conclusive evidence that the practice of cross selling large amounts of non-audit services relative to total audit services affects auditor independence, nor impairs audit quality or earnings quality. However the results from the Basu model (1997) indicate that cross selling non-audit services does decrease accounting conservatism. Although this is not supported by the other models, it gives opportunities for future research.
5.2 Limitations

As with all studies, this study has its limitations. The first limitation is the short time window, since article 2:382a BW is effective from 2008 onwards. This limits the number of observations. The number of companies in the AEX, AMX and AScX indices are limited at 75, however financial institutions, real estate firms and oil companies are removed from the sample because of accounting rules. Combine this with the limited observed years and the final sample is fairly small and only consists of 163 observations. The number of company observations in this sample that disclose additional information is 112. Secondly, the Basu (1997), the Ball and Shivakumar (2005) and the DeFond & Park model (2001) need a large sample size for statistical power. This sample is quite small and this might influence the power of the models. Moreover the market-to-book ratio is a very weak, but simplistic measure for accounting conservatism. Thirdly, the audit fees need to be disclosed in four categories: audit, audit related, tax and other fees. In section 3.2 I stated that audit related fees are more heading towards non-audit services and not towards audit services. However the client and the auditor may have some freedom to shift between these categories. Services that have to do with the audit might be classified as being audit related and vice versa. This might bias the data. Finally, a world-wide economic crisis is present in every year of the observations. You might expect that this increases the number of companies, which report a loss or a negative cash flow from operations. However an economic crisis might increase earnings management and decrease accounting conservatism for contracting purposes and because of the expected company performance by stakeholders. Again this might bias the data.

5.3 Future research

The used sample is small. Future research may increase their sample by using data from multiple countries that are comparable in terms of regulation and economic situation. This type of research could for example be expanded to Germany, where companies need to disclose audit fees in the same four categories as is described in the 8th Directive and this is specified in the German 9th Handelsgesetzbuch, paragraph 314 article 1. By adding more countries, the data will increase and the statistical power of the accounting conservatism and earnings management models will increase. Other research could also focus on other aspects of audit quality and earnings quality, for example audit opinions. This research only focused on conditional accounting conservatism. Unconditional accounting conservatism could be measured in future research, although unconditional accounting conservatism tends to be consistent over time (Feltham & Ohlson, 1995). Earnings management could be broadened as well by adding real earnings management to the research design.
References


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