# IMPACT OF AUDITOR AND AUDIT FIRM ROTATION ON ACCOUNTING AND AUDIT QUALITY: A CRITICAL ANALYSIS OF THE EC REGULATION DRAFT

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### **Abstract**

In a current regulation draft of 2011, the European Commission (EC) plans the mandatory audit firm rotation principally after six years and with regard to a cooling off period of four years to increase auditor independence. This could complement the internal mandatory rotation (auditor rotation) by the 8th EC directive. The present paper gives a state of the art analysis of the empirical research results with regard to auditor and audit firm rotation. In contrast to the perception of the EC, the majority of the empirical results doesn't find evidence for increased financial accounting and audit quality by audit firm rotation. Furthermore, the positive effects of the internal rotation period of seven years and the cooling off period of two years by the 8th EC directive are not empirically proved yet.

**Keywords:** Corporate Governance, Audit Quality, Empirical Audit Research, Auditor Independence.

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# 1. Introduction

In the wake of the financial crisis, regulators and shareholder activists alike have been revisiting the issue of auditor independence with a view towards requiring companies to periodically rotate their outside audit firms. Facing the capital markets' shrinking trust in the decision usefulness of financial accounting and auditing as a result of the financial crisis, the European Commission (EC) in a regulation draft (EC 2011) is in quest of ways to reform the professional standards of accountants and auditors. The intention of the EC is to increase audit quality by reducing the expectation gap, to increase auditor independence and to prevent further audit market concentration. In order to increase auditor independence, based on actual autonomy (independence in fact) as well as on autonomy perceived as such by the capital markets (independence in appearance), the EC is considering introducing mandatory external rotation (audit firm rotation) principally after six years and with regard to a cooling off period of four years. While internal rotation (auditor rotation) stipulates changes within the audit firm, external rotation replaces the audit firm entirely, following a fresh start approach. Currently Italy is the only state in the European Union (EU) with audit firm rotation rules (since 1974), which, however, was not able to prevent the financial fraud scandal at Parmalat. Austria introduced external rotation for financial years beginning on January 1, 2004, but repealed it before it came into effect. Similarly, compulsory audit firm rotation does not longer exist in Greece and Spain.

The EC's considerations have already been outlined in a draft directive dated February 17, 2004, regarding an amendment to the 8th EC directive (EC 2004). This amendment was giving the option to choose between internal rotation after five years and external rotation after seven years. Upon passage of the modified 8th EC directive, audit firm rotation has not been codified due to – according to the EC's assessment then – negative effects on audit quality were expected. For auditing bodies of public interest, compulsory internal rotation was introduced as a substitute aiming to enhance auditor independence.

Based on the 8th EC directive, all responsible partners of auditing companies have since been obligated to submit to an internal rotation no later than after seven years. After a cooling off period of two years, the auditor in charge may reapprove their services with a given client. At the same time, the US capital market was considering introducing compulsory external rotation in compliance to the Sarbanes Oxley Act (2002). Consistent with the EC's opinion of that time, however, the results of an empirical survey by the General Accounting Office (GAO 2003), objected to compulsory external rotation. As a substitute, an internal rotation cycle of five years as well as a cooling off period of two years according to Section 203 of the Sarbanes Oxley Act was introduced for all auditors who are primarily responsible for the mandate at hand or in charge of an internal revision of audits, and provided audits for clients in question. For all non responsible auditors in charge of crucial cases who are in regular contact with the company's administration, an extended rotation period of seven years, followed by a cooling off period of only one year is to be observed.

In light of the recent explosiveness caused by the EC reform discussion as well as various forms of rotation from an international point of view, this article mainly deals with the results of empirical audit research regarding effects of auditor- and audit firm rotation on financial accounting- and audit quality. With the regulation draft lacking a theoretical basis of the subject as well as an inventory of empirical research on auditor change, the EC's assumption of a positive link between rotation and quality of financial accounting and auditing is to be subject to further scrutiny.

# 1 Advantages and risks of mandatory rotation

## 1.1 Advantages

Internal and external rotation is often considered a way to enhance audit quality due to a prevention of the auditor's depending relationship with the management, distinguishing between the auditing of capital market oriented and non-capital market oriented corporations. Since traditional agency conflicts are characteristic in large management operated corporations, the necessity of a statutory rotation is solely related to this group of companies. Shareholders in small and medium-size companies are to exert greater influence on the management than an average private shareholder in a public company. This dichotomy in auditing standards has recently been contemplated by the EC in their regulation draft. Burton and Roberts (1967) present a fundamental approach to the economic impact of auditor changes. Although, considering the assistant role of an auditor in a stock corporation (Figure 1), a long-term contract between board and auditor seems sensible, the independence in appearance might be limited due to a special trust relationship between management and auditor in a long-term assignment. They suggest that personal relationships between auditor and management, the combination of auditing and consulting, as well as the auditor's goal of maintaining the assignment are determining factors towards reducing audit quality.

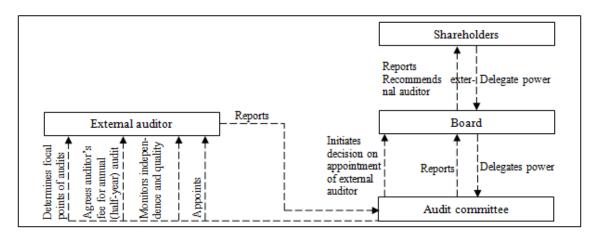
According to DeAngelo (1981a), quasi-rents according to low balling - without compulsory rotation might present a financial incentive to the auditor to give up his independence, if the probability of exposure by the capital market is considered to be low. According to supporters of this theory, an auditor's low balling strategy which might be related to his lack of independence can be counteracted by compulsory rotation. Chi et al. (2004) do not agree with this opinion but state an adverse effect on independence in fact due to rotation under the existence of quasi rents and assignment by the owners. They point out that the auditor would give up his independence in the last audit period before the rotation because he assumes hidden transfers of the management since he no longer has to be concerned about the loss of quasi rents due to shareholders not being re-elected. According to Bigus and Zimmermann (2007), the absolute (client related), but not necessarily the relative quasi rents are cut short due to rotation, which implies that rotation does not necessarily cause an increase of auditor independence. Irreconcilable differences of opinion between management and auditor are not risky to the auditor if a change is scheduled for the near future anyway, which is mentioned as another possible advantage. Literature assumes stricter and more relentless auditing under compulsory rotation, considering that the auditor wishes to diminish the risk of having his successor complain about his low performing upon review of previous years' audits. Finally the avoidance of organizational blindness under compulsory rotation is pointed out, as negatively influencing the audit efficiency, even under observation of independence. Hence, the auditor simply trusts his results from previous years instead of anticipating important changes in the company development and adjusting his auditing strategy.

### 1.2 Risks

The positive effects of compulsory rotation on the limitation and avoidance of low balling as mentioned in literature are not secured, since compulsory rotation creates system immanent disadvantages. Thus, a change of auditor incurs a higher monetary value of auditing costs and increased audit fees which result in additional costs of the initial audit and transaction costs on the part of the client. Especially long-term audit scheduling and following up on complaints or auditors' suggestions from previous audit periods would have to suffer under rotation. Empirical surveys in the US show that the auditor's risk of liability is significantly higher in first or second audits than in following audits (AICPA, 1992). Since first audits tend to be of lower quality, negative responses of the capital market are to be expected upon a forced change of auditor. This way an investor can no longer distinguish a voluntary change of auditor due to opinion shopping of the management from a compulsory rotation, which increases his cost of information (Bigus and Zimmermann, 2007). Therefore, for corporations which aim to offer high audit quality to the capital market, compulsory rotation in short intervals may be unfavourable. Even a statutory long-term rotation cycle (e.g. more than nine years) cannot prevent the risk of hidden intention of management.

Audit market concentration is another important disadvantage of compulsory rotation, which the EC critically reviews. The European audit market for listed companies is dominated by the Big Four audit firms. The reason for this concentration lies in the Big Four companies having the highest experience value in auditing capital market oriented enterprises, according to DeAngelo (1981b) they are related to a higher quality and independence, and have an extensive potential of resources in additional performances such as advisory services to show. This development of oligopoly in the global audit market makes an entry into the market very difficult for small and medium-size audit firms. In general, these difficulties cannot be overcome by compulsory rotation, since changes are made within the audit firm (internal rotation) or between Big Four audit companies (external rotation). Furthermore, practical experience suggests frequent changes from small to larger audit companies. In general view, the above mentioned impacts under rotation by a change of the audit company as opposed to a change of auditor within the company are stronger. The overall impact of compulsory rotation is, from a theoretical point of view, not explicit, therefore, even with the auditor applying low balling, a rotation does not necessarily imply higher quality but the interruption or shortfall of learning and experience effects can have an altogether negative effect on the quality of financial accounting and audit.

**Figure 1.** External auditor's position within the basic corporate governance structure (without differentiation between the one-tier and two-tier board)



# 2 Empirical results of audit research

### 2.1 Auditor rotation

Empirical auditor change research has become highly significant particularly in jurisdictions of the US, Asia, and Australia. In order to determine the quality of financial accounting and auditing, a number of variables are used, which if viewed separately, provide an assessment of limited informational value (Bedard et al., 2008). In general, the dimension of accounting policy is operated by means of discretionary determination of time frames, according to paradigms outlined by Jones (1991) and DeFond

and Park (2001). Outside investors tend to disapprove of an accounting policy with maximum results, especially regarding companies in a situation of losses (Jones, 1991), the reason being that asymmetric flow of information between management and investors are encouraged in order to deliberately conceal the actual economic situation, or, for reasons of image policy, to portray it as being better than it is. Under a thorough and independent examination, the auditor will scrutinize a positive image policy more critically and will not tolerate questionable aspects of accounting. Since, as mentioned above, the risk of collaboration between management and auditor increases with the duration of the assignment, the following surveys will establish to what extent a possible enhancement of auditor independence through rotation might reduce accounting policy and create a more "conservative" application of accounting standards. In this context, Chi et al. (2009) create a positive link between introduction of compulsory internal rotation in Taiwan in 2004 and quality of financial accounting. Likewise for the Australian capital market Hamilton et al. (2005) prove in 3,621 cases, observed during the business years of 1998 -2003, that internal auditor rotation reduces accounting policy. According to Gates et al. (2007) an experiment among US students shows that auditor rotation increases investors' confidence in the quality of financial accounting in a regulatory environment with increased corporate governance procedures. As one among few surveys, Zimmermann (2008) refers to the German capital market. Based on 102 prime standard companies, an increase of audit fees (fee cutting) following an extended assignment was obvious. A significant relation between the duration of assignment and the level of accounting policy, however, could not be proven.

Besides the quality of financial accounting, the quality of auditing is determined by diverging variables, e.g. based on restricted going concern opinions, assuming that an independent auditor, facing companies with substantial liquidity issues, decides to restrict or deny the going concern opinion. With rotation, an increased rate of restricted or denied approval is expected, since the management wishes an unrestricted attestation and imposes pressure upon the auditor to have him comply. Using the above mentioned variable, Carey and Simnett (2006) prove that, in the case of 1,021 Australian enterprises during the business year of 1995, the audit quality decreases with increasing duration of the assignment and increases with internal rotation. However there is no proven correlation between the length of an assignment and the degree of accounting policy as a second variable. Dao et al. (2008), who survey 635 US corporations in the business year of 2006, conclude that, in long-term assignments, investors realize a decrease of audit quality in a given time frame, which is reversed by internal rotation. However a fixed schedule of the rotation and cooling off period with an existing compulsory internal rotation as outlined in the 8th EC directive, which allows for another assignment of an auditor after the change, has not been sufficiently researched.

Watrin et al. (2008) research the impacts of changing the chief auditor and the authorizing auditor on the extent of accounting policy in the DAX, MDAX, SDAX, and TecDAX in the business years of 2004 -2007. While there is no evidence of significant changes in accounting policy upon change of chief auditor, there are signs of an increase of earnings-improving accounting policy after a change of the authorizing auditor. This result is contrary to the efficiency of rotation, since it implies that the management assumes a lower quality of the initial auditing and expects a questionable accounting policy to be tolerated by the auditor. According to Cameran et al. (2008), in the Italian capital market no positive impact can be detected in 1,439 surveys during business years between 1985 and 2004 regarding the extent of accounting policy under internal rotation. Blouin et al. (2007) draw an identical conclusion based on 407 US corporations in the business years of 2001 and 2002. In addition to the above mentioned variables, the auditor independence is determined by the audit fees paid, which, in the US as well as the EU, requires the audited corporation to report in the notes and, in case of capital market oriented companies, disclosure of the audit firm in the transparency report. In this context there seems to be an increasing relation between non-audit and audit fees along with a decreasing independence in appearance, as quasi-rents per client according to low balling increase with higher additional income, and the auditor can be restricted in his ability to judge in order to keep his assignment. Based on 4,720 US corporations during the business years of 2000 and 2001, Gul et al. (2007) point out that the auditor independence is rather hindered by non-audit fees and a short duration of assignment than by an extended cooperation, and that compulsory internal rotation is counterproductive. Finally, the survey by Azizkhani et al. (2007) examines the impact of rotation on the capital market's responses. The board strives to increase the company value by decreasing the risk margin on allocated capital contribution. Reduction of capital contribution depends on the investors' confidence in audited financial accounting, and whether decision relevant information is presented. According to Azizkhani et al. (2007), in 2,033 Australian corporations during business years of 1995 - 2005 no impact of internal rotation with Big Four audit companies on the costs of capital has been evident.

### 2.2 Audit firm rotation

The following empirical surveys on external rotation mainly relate to the US capital market. The majority of empirical assessments disapprove of audit firm rotation, since there are either no effects or even negative effects on the quality of accounting and auditing detectable. Only Dopuch et al. (2001), Davis et al. (2008) and Boone et al. (2008) point out positive effects. Dopuch et al. (2001) prove based on an experimental study in the US, that in case of audit without external rotation it is more likely that the auditor over time biases approval testates accommodating the management, and conceals errors from the public. In the experiment at hand, however, experience effects of the auditor under a long-term assignment remain uncovered. Davis et al. (2009) prove based on 12,892 US corporations in the business years of 1991 – 1998 that the management takes advantage of its leeway in decisions and arrangements in short (two to three years) and very long duration of assignment (at least thirteen years) in order to fulfil or outdo result prognoses. The latter is considered positive by the capital market and may reflect in a higher demand of shares. The authors prove that the duration of the audit assignment has a positive effect on the extent of maximum earnings management, so that the audit quality is increased by external rotation after a longer duration. Boone et al. (2008) point out signs of interdependence between external auditor rotation and risk margin on allocated capital contribution in 12,493 surveys on the US capital market during the business years of 1974 – 2001. Capital costs decrease in the first years of the assignment and rise with its duration.

As outlined above, the majority of recent studies either does not show proof or documents a tendency of weakening the quality of accounting and auditing due to external rotation. Johnson et al. (2002) saw comparatively short assignments (two to three years) causing higher training costs combined with a lower quality of accounting in 11,148 US surveys during the business years of 1986 – 1995, while they did not find proof of lower quality in long-term assignments (at least nine years). Myers et al. (2003) who surveyed 42,302 US corporations between 1988 and 2000 report that auditors in long-term assignments (more than five years) disapprove of a maximum accounting policy due to learning and experience effects. Likewise, Al-Thuneibat et al. (2011) state a negative correlation between external rotation and the quality of accounting in 358 Jordan companies listed at the stock exchange between 2002 and 2006. In their survey of 35,826 or, respectively, 38,794 US corporations between 1990 and 2000, Ghosh and Moon (2005) show that investors, rating agencies and analysts assume positive interdependence between the duration of assignment and the quality of accounting, represented by the interest rate investors require, rating results, as well as the analysts' performance prognoses. Contrary to their results with US students on internal rotation, Gates et al. (2007) show that investors' confidence in the financial accounting quality in a regulatory environment with increased corporate governance methods cannot be influenced by external auditor rotation. Furthermore, according to Carcello and Nagy (2004) based on the business years of 1990 - 2001, 267 US corporations showed balance manipulations mostly in the first three years of the assignment, since the management assumes lower quality of audit provided by new auditors. A long-term assignment (at least nine years), however, does not imply a significant increase of balance manipulations.

Mansi et al. (2004), based on 8,529 US surveys between 1974 and 1998, question the usefulness of audit firm rotation and state negative capital market responses in the assessment of market-noted stocks of risk intensive companies. Therefore, with greater entrepreneurial risk, investors tend to rate the auditor's learning and experience effects in a long-term audit assignment higher than possible limitations of his independence. Likewise, Knechel and Vanstraelen (2007) show based on 618 Belgian companies for the business years of 1992 – 1996 that independence in appearance of the capital market does not decrease with extended assignments. Azizkhani et al. (2007) see the duration of assignment in 2,033 Australian companies between 1995 and 2005 which are audited by non-big-four audit firms in an inverse relation to the size of capital costs, whereas there are no significant changes under external rotation. Fargher et al. (2008) are among the few surveys which compare the impact of internal and external rotation on 590 Australian companies during the business years of 1990 – 2004. They prove that in the first years after a change of auditor the management lowers the extent of accounting policy if internal rotation has taken place. Under external rotation, however, a significant increase of discretionary periodical classification is established.

In relation to the quality of auditing, Geiger and Raghunandan (2002) survey 117 US corporations with significant liquidity issues between 1996 and 1998 and observe the probability of restrictions in going concern opinions to be lower in the first years of the assignment based on a higher reporting error rate of the auditor, based on sanctions by the Stock Exchange Commission (SEC). Jackson et al. (2008) point

out, based on 1,750 companies in the Australian capital market between 1995 and 2003 that the probability of restricted going concern opinions increases with the duration of assignments due to the auditor's experience. According to Jackson et al. (2008), interdependence between the duration of assignment and the quality of financial accounting cannot be established as the second variable, so that the necessity of compulsory external rotation is ultimately dismissed. In the case of the Spanish audit market, based on 1,326 companies with significant liquidity issues in the business years of 1991 – 2000, Ruiz-Barbadillo et al. (2009) are not able to prove empirically that an external auditor change increases the probability of restricted going concern opinions.

### 3 Conclusion

Auditor independence is an indispensable requirement in providing appropriate quality of financial accounting and auditing. Not only independence in fact but also independence in appearance, the auditor independence perceived by the capital market, is of utmost importance in this context. In order to strengthen independence, the application of internal and external auditor rotation is discussed. While in the revised version of the 8th EC directive internal rotation has been mandatory, the present regulation draft raises questions on the necessity of a compulsory external rotation (principally after six years and with regard to a cooling off period of four years), which stipulates the change of the audit firm. Since the EC provides neither a theoretically nor an empirically grounded economic justification for the reforms in question, the effect of rotation on the quality of financial accounting and auditing is uncertain. Due to this, the purpose of this analysis is to consult recent results of empirical audit research from an international point of view and critically challenge the EC's plans. An overview shows that an enhancement of auditor independence will not necessarily be achieved by implementing rotation. It might be paid for by an interruption or lack of learning and experience. Empirical studies do not show an increased quality of financial accounting and audit under external change of auditors. In the area of internal rotation, however, there are just as little empirical findings. Therefore, the extent to which the rotation period of seven years and the cooling off period of two years as mentioned in the 8th EC directive in the context of internal rotation an increased quality of accounting and auditing cannot be determined.

Regarding the empirical surveys mentioned above, it has to be pointed out that the focus of empirical auditor change research is mainly on US, Asian, and Australian capital markets, while only a few surveys exist on EU member states such as Italy, Germany, Belgium, and Spain. Furthermore, the variables used to estimate quality of financial accounting and audit, such as discretionary accruals or restriction of going concern opinions, are of limited conclusion value. Based on these facts there is need for action on the part of the EC to perform cross-national empirical studies before implementing compulsory external rotation throughout the EU. The proposal of a multi-periodical assignment of auditors as a legitimate temporary auditing monopoly as mentioned in literature, such as in Belgium, France, Italy or Spain, is to be taken into consideration. Meanwhile, the authors are rather critical whether EC's proposals and regulation towards mandatory external rotation are suitable to improve corporate governance structures of financial as well as of non-financial firms in the EU.

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