Arbeitskreis Quantitative Steuerlehre
Quantitative Research in Taxation – Discussion Papers

Kay Blaufus / Tim Zinowsky

Investigating the determinants of experts' tax aggressiveness: Experience and personality traits

arqus Discussion Paper No. 151

November 2013

www.arqus.info
ISSN 1861-8944

Investigating the determinants of experts' tax aggressiveness: Experience and personality traits

Kay Blaufus[1], Tim Zinowsky[2]

Abstract

This study analyzes how the Big Five personality traits and professional experience affect the aggressiveness of tax preparers' recommendations. To this aim, we conduct a survey among tax professionals of a Big Four accounting firm and tax students. Using treatment-effects regressions, we find that personality traits have direct and indirect effects on tax aggressiveness. The indirect effects are due to a selection effect. Personality traits affect the decision to remain in the organizational environment of the Big Four accounting firm, and the experience in this firm is significantly related to tax aggressiveness. Our data suggest that enhancing work experience at the accounting firm leads to lower tax aggressiveness and that the organizational culture appears to be an important determinant of tax aggressiveness. Moreover, we provide evidence that the danger of potential reputation losses reduces subjects' tax aggressiveness regardless of whether the subject is highly experienced.

Keywords tax preparers · tax aggressiveness · experience · personality traits · Big Five · reputation loss

JEL Classification M40 · M41 · H25 · H26

[1] Kay Blaufus (corresponding author)
Leibniz University Hannover, Koenigsworther Platz 1, 30167 Hannover, Germany
E-mail: blaufus@steuern.uni-hannover.de
+49 511 7625660

[2] Tim Zinowsky
Leibniz University Hannover, Koenigsworther Platz 1, 30167 Hannover, Germany

Introduction

Previous accounting research shows that taxes affect firms' economic decisions and examines taxpayers' and tax system characteristics to explain differences in taxpayers' compliance behavior (e.g., Chen et al. 2013, Richardson et al. 2013). However, firms usually purchase tax advice. Thus, it is reasonable to assume that their behavior is at least partly driven by tax professionals providing the required advice. These tax professionals support the taxpayer in being compliant with all sources of legal authority and assist him or her in dealing with the Internal Revenue Service (IRS). At the same time, tax professionals are free to minimize the client's tax liability within the latitude allowed by the tax code because they should be client advocates in tax matters (AICPA 2008). Consequently, it is not surprising that the OECD identifies tax advisers to be, at least in part, a driver of tax avoidance by designing and offering aggressive tax planning schemes to their clients (OECD 2008). Empirical research confirms this claim (Lisowsky 2010, McGuire et al. 2012). In the present study, we investigate whether tax preparers' aggressiveness depends on the length of their professional experience and their "Big Five" personality traits.

Personality research has shown that individual personality can be described by the five superordinate ("Big Five") dimensions of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (McCrae and Costa 1990). Although the Big Five traits can successfully predict behavior in many different fields, e.g., occupational choice, wages, job performance, health behavior, teenage pregnancy, and crime (for a review, see Borghans et al. 2008), the accounting literature to date has not focused on the influence of the Big Five personality traits on professionals' actions. To the best of our knowledge, we are the first to investigate the impact of the Big Five on tax preparers' aggressiveness.

Moreover, our study aims to shed light on the relation between professional experience and preparers' aggressiveness by investigating, on the one hand, a potential endogeneity of previously used experience measures and, on the other hand, cognitive conservatism (Gibbins 1984, Kaplan et al. 1988, Kaplan & Reckers 1989). Both aspects could help to explain why

previous research provides mixed evidence regarding the effect of experience on preparers' aggressiveness (O'Donnell et al. 2005). Regarding the potential endogeneity, we hypothesize that personality traits directly affect previously used experience measures. If, however, a personality trait is negatively (positively) correlated with the length of job experience but positively (negatively) correlated with aggressiveness, then not controlling for this trait would lead to misleading results regarding the effect of experience on tax aggressiveness. We address this potential endogeneity using a treatment-effects model (Maddala 1983) with tax aggressiveness as the dependent variable and experience as an endogenous binary-treatment variable.

Cognitive conservatism, as proposed by Gibbins (1984), should make experienced tax preparers recognize the instability of situational variables and hence pay less attention to these variables. Thus, experience could interact with situational variables. In this study, we use reputation losses as a situational variable to test whether experienced tax professionals show cognitive conservatism. Reputation damages are particularly appropriate for studying the proposed effect because they present relevant perceived costs of tax aggressive behavior. This assumption is supported by a recent survey of tax executives in which almost half of the participants agree that potential reputational damage to their firm is a very important factor in deciding among different levels of tax aggressiveness (Graham et al. 2011).

To study the effects of experience and personality traits on tax preparers' aggressiveness, we conducted an online survey among 66 German tax professionals of one Big Four accounting firm as well as 57 students studying tax and accounting at different German universities. In line with US preparer penalty provisions (IRC Sec. 6694 (a) (2)), we measure tax aggressiveness as the likelihood that a recommended tax position will not prevail before a tax court. Our results show that personality traits have a direct effect on tax aggressiveness. In particular, our data indicate that extraversion, openness, and neuroticism reduce tax aggressiveness, whereas agreeableness increases tax aggressiveness. Thus, this study is the first to provide evidence that the Big Five personality traits directly influence the recommendations of tax experts and should therefore be considered in behavioral accounting

research. Moreover, our results suggest that tax aggressiveness declines with increasing working experience at the Big Four accounting firm and that organizational culture is an important determinant of preparers' tax aggressiveness. Furthermore, we find that experience level (measured as years working at the accounting firm) is indeed endogenous with respect to personality traits. Thus, personality traits have an additional indirect effect (via experience) on tax aggressiveness. Regarding the proposed cognitive conservatism, we cannot confirm that experienced professionals react differently on the variation of reputational losses. Independent of individual experience, the existence of potential reputational damages significantly reduces preparers' tax aggressiveness.

Our findings are relevant for different parties involved in the tax compliance process. First, the IRS could use information about the experience and personality traits of tax preparers to optimize the audit selection process. Second, knowledge about the relation between experience and personality traits and preparers' aggressiveness can help clients select the tax preparer that best matches their own preferences. Third, our results are useful in preventing accounting firms from reputational losses or claims resulting from advisor liability or preparer penalties. The firm could monitor the tax aggressiveness of its employees by observing relevant personality traits, which also holds for the staffing of projects. By choosing employees based on their personal characteristics, the employer is able to staff "think tanks" or identify client managers according to their own tax risk propensity or according to the client's tax risk propensity.

The remainder of this paper is structured as follows. First, we describe some institutional details about the German tax advisory business. Second, we provide a review of prior literature and formulate our hypotheses. Third, we describe the sample and survey instrument as well as the estimation strategy employed. Fourth, the results of the empirical analysis are presented and discussed. Fifth, we present conclusions and suggestions for future research.

Institutional Background

Because we investigate the tax aggressiveness of German tax professionals, it is necessary to understand the framework of their business. As in most countries, German law distinguishes between legal tax avoidance and illegal tax evasion, which share in common taxpayers' attempts to reduce their tax liabilities. Tax avoidance as such is neither prohibited nor punishable as long as the taxpayer does not provide any inaccurate or incomplete information to the revenue service (Brown 2011:165). In contrast, if taxpayers provide intentionally inaccurate or incomplete information to the tax authorities to reduce their tax burden, this behavior will be punished as tax evasion. It should be noted that the current study only covers legal tax avoidance.

In general, the German market for tax advisory services is highly regulated. Only tax advisors, lawyers, or CPAs that have passed the required examination are allowed to provide advisory services in the field of taxes. To get access to this exam, people must have tertiary education in business, law, or economics and must have worked in the field of taxes for two or three years (depending on the years of study) afterward. The state examination consists of three written exams lasting six hours each and an oral examination. The pass rate is usually approximately 40-60%. In 2012, approximately 80,000 examined tax advisors were registered in Germany. By having successfully passed the exam, tax advisors are subject to professional supervision and are bound by certain professional ethics such as discretion or conscientiousness. The latter also comprise the need for a disclosure of all connected risks when providing advice to clients. At the same time, tax advisors are client advocates who are free to recommend every tax position that can be defended by evidence from law, literature, or case law. Even very aggressive tax positions can be endorsed as long as the tax advisor complies with professional ethics - in particular, unlimited client enlightenment - and does not support the client in tax evasion. Preparer or taxpayer penalties, which are prevalent in the US, do not exist in German law. Furthermore, German law does not provide for mandatory early

disclosure rules. Hence, German tax preparers are less regulated when choosing the level of aggressiveness in providing advice to their clients.

Hypotheses Development

Previous accounting research shows that tax preparation services directly affect firms' financial accounting (e.g. Seetharaman et al. 2011, Nam and Ronen 2012) as well as their tax compliance (Lisowsky 2010, McGuire et al. 2012). In this paper, we aim to study determinants of tax preparers' advice aggressiveness. These determinants have been divided into three broad classifications by Milliron (1988): client-related features, decision-context determinants, and preparer related features. Relevant client-related features include characteristics such as client's preference (Ayres et al. 1989, Helleloid 1989), aggressiveness (Kaplan et al. 1988, Duncan et al. 1989), importance (Reckers at al. 2010), and withholding status (Schisler 1994). Furthermore, the relationship with the client is crucial when predicting the tax aggressiveness of professionals. Differences depend on the risk of client loss (Newberry et al. 1993) or the reasonableness and cooperativeness of the client (Kadous & Magro 2001). Decision-context determinants observed to influence tax aggressiveness include features such as preparer penalties (for a review see Hansen & White 2012), planning versus compliance tasks (Spilker et al. 1999), or the level of ambiguity (Carnes et al. 1996, Klepper and Nagin 1989, Kaplan et al. 1988). Moreover, within this strand of literature, task complexity has been observed to be a moderating factor when trying to predict the influence of experience on tax professionals' aggressiveness (O'Donnell et al. 2005), whereas the evidence for a relation between preparer's tax aggressiveness and experience itself is conflicting. The latter is most prevalent in studies investigating preparer-related features. However, when following the classification of Milliron (1988), this last category also involves other factors affecting tax preparers' aggressiveness such as educational level (Carnes et al. 1996), political ideology (Blanthorne et al. 2013), gender (e.g., Roberts & Cargile, 1993), firm type (e.g., Carnes et al. 1996), client advocacy (e.g., Johnson 1993), overall risk propensity (e.g., Pei et al. 1992), or tax risk propensity

(Carnes et al. 1996). Finally, there are a few studies emphasizing the impact of ethical judgments in general (Cruz et al. 2000) or moral reasoning in particular (Blanthorne et al. 2013) on tax professionals' aggressiveness.

The purpose of this study is to complement the abovementioned research stream by investigating the effect of the Big Five personality traits on tax preparers' aggressiveness and reconsidering the relation between experience and tax aggressiveness.

Personality traits

Personality research shows that a comprehensive characterization of personality can be achieved by considering five factors – the so-called Big Five personality traits (e.g., Barrick & Mount 1991, McCrae & Costa 1997).

The first two factors are Extraversion (E) and Neuroticism (N, also known as emotional stability with inverse meaning), formerly known as the "Big Two" (Wiggins, 1968). People scoring high in E are generally described as being sociable, gregarious, assertive, talkative, and adventuresome, whereas N involves traits such as being depressed, angry, embarrassed, emotional, anxious, and insecure. The third factor has generally been labeled as Agreeableness (A). Traits associated with A include being courteous, flexible, cooperative, forgiving, and tolerant. The fourth factor Conscientiousness (C) reflects traits such as being hardworking, dutiful, orderly, and organized. The last factor Openness to Experience (O) involves traits such as curiosity, imaginativeness, or open-mindedness and can often be observed among people who have a preference for art, literature, classical music, or new experiences in general.

This five-factor structure has proven to be stable with respect to a broad range of used instruments and methodologies in measuring personality traits (e.g., Goldberg 1990). In addition, substantial convergence has been observed between an individual's self-reported trait ratings and ratings of others who know an individual well (Soldz & Vaillant 1999). Most

importantly, however, the Big Five have shown considerable predictive value for key socioeconomic outcomes.

With respect to the current study, it is important to note that research finds risk propensity to be strongly rooted in personality (Nicholson et al. 2005). Researchers have found evidence for the fact that A, C, and N are inversely related to risk taking, whereas E and O have been found to increase risk propensity (e.g., Nicholson et al. 2005, Soane & Chmiel 2005).

However, recent risk research also shows that risk taking behavior is domain-specific (e.g., Soane et al. 2010). Thus, it is an open question whether the results regarding risk taking in other domains also apply in the context of aggressive tax risk taking, which is due to differences in the characteristics of overall risk taking and risk taking in the tax environment. First, the choice to take on tax risks by professional tax preparers is not a "private" decision such as playing the lottery or investing in shares but must be defended in internal revision processes as well as against claims of the financial administration. This reasoning is supported by the fact that the Big Four firm where we conducted our survey requires every tax advisor to confirm yearly that he or she did not pursue any tax constructions or declared information in tax returns that could potentially derogate the firm's good reputation in the German revenue service or the image of the firm network. Second, even in the absence of preparer penalties, there might be perceived non-pecuniary costs of recommending tax positions that will not be upheld by a court. Although tax advisors are, on the one hand, clients' advocates and therefore aim to minimize clients' taxes, they are, on the other hand, restrained by their ethical obligation to act as "law enforcers". Research shows that personality traits significantly affect the perceived costs of social and ethical risk taking (Soane et al. 2010). In sum, the literature on risk taking and personality traits as well as that on personality traits and the perceived costs of social and ethical risk taking suggests that the Big Five personality traits directly affect the aggressiveness of tax preparers' recommendations. Therefore, we test the following first hypothesis:

H1: Tax aggressiveness will be affected by the Big Five personality traits.

Experience

Direct Effect

Previous tax research uses different indicators of experience. Although task familiarity (Duncan et al. 1989, Newberry et al. 1993, Reckers et al. 1991), prior IRS audit experience (Cloyd 1995, Duncan et al. 1989, Kaplan et al. 1988), and having passed the CPA or Bar exam (Ayres et al. 1989, Cuccia 1994, Erard 1993) increase tax preparers' tax aggressiveness, other studies using age or years of experience in the field of taxes as a proxy for experience report evidence that the latter may increase (LaRue & Reckers 1989) or decrease (Helleloid 1989, Cloyd 1995) tax aggressiveness or that there is no association at all (Duncan et al. 1989, Schisler 1994).

Despite the conflicting evidence, we suppose that experience should be negatively related to tax aggressiveness. It should be noted that we aim to measure the willingness to recommend aggressive ("risky") tax positions given an exogenous chance that the position does not prevail in a tax dispute with the IRS. Thus, the arguments for a positive impact of experience indicators such as IRS audit experience (McGill 1988, Ayres et al. 1989, Pei et al. 1992) or procedural knowledge (O'Donnell et al. 2005) as provided by prior literature should not be applicable to the setting at hand because they refer to an adjustment of the outcome expectations and not to the willingness to recommend tax positions with a given risk level.

Furthermore, the perceived ethical costs of recommending overly aggressive tax structures rise with increasing experience, as Kohlberg's (1981) theory of moral development suggests. According to this theory and recent empirical evidence (e.g., Emerson et al. 2007), individuals may experience a moral maturation over the course of their lives. Moreover, previous research shows that tax partners rate the ethical environment of their firms as being stronger than that of non-partners and report having encountered more "ethical dilemmas"

(Bobek et al. 2010). In addition, experienced tax advisors are "repeat players" who should also be interested in maintaining a trustful relationship with the Revenue Service and should, therefore, avoid overly aggressive tax recommendations. Finally, with increasing experience, tax preparers of large firms should not only be responsible for their own results but also for the success of their firm and the job security of subordinate employees. Responsibility for the wealth of others, however, reduces risk taking as previous experimental studies show (e.g., Charness & Jackson 2009). These aspects should make tax preparers take lower tax risk. Thus, we test the following hypothesis:

H2: There is a negative relation between experience and tax aggressiveness.

Cognitive Conservatism

Abelson (1976) identifies three stages in the development of scripted understanding and behavior. In the first stage, an event is retained in memory as a context-specific remembrance of a single experience (development of "episodic scripts"). The second stage occurs after experiencing many similar events in similar situations (the collection of episodic scripts are formed into a "categorical script"). In the final stage, after enough experience has been gained, subjects develop "generalized scripts" to guide behavior across a wide range of situational contexts. According to Gibbins (1984), Kaplan et al. (1988), and Kaplan & Reckers (1989), script-guided behavior leads to more conservative responses of experienced professionals, i.e., their responses are more stable than the environment.

In addition to knowledge of relevant tax law, tax professionals must learn "the hidden rules" of the tax advisory business to develop "generalized scripts" that provide them guidance in ambiguous cases. Learning these rules requires much more time than acquiring tax law knowledge because the outcome feedback of tax decisions is usually delayed (e.g., three or more years may pass before tax professionals negotiate an issue with the Revenue Service during a tax audit). Thus, it is likely that the development of "generalized scripts" requires many years of professional experience. To test whether these highly experienced professionals

react conservatively to the variation of a situational variable, we use potential reputation losses arising from a tax recommendation.

Reputation damages present a relevant cost of tax aggressive behavior and are therefore particularly appropriate for studying the proposed effect of cognitive conservatism. This assumption is supported by a recent survey of tax executives in which nearly half of the participants agree that a potential reputational damage for their firm is a very important factor in deciding on different levels of tax aggressiveness (Graham et al. 2011).

If experienced professionals in fact show cognitive conservatism, then more-experienced tax professionals should place lower weight on the variation of potential reputation losses. Hence, we expect the following:

H3: More-experienced subjects adjust their tax aggressiveness to a lower degree than inexperienced participants when confronted with potential reputational losses.

Experience and Personality traits

No prior study recognizes that high experience in the field of tax advisory might itself be dependent on certain personal characteristics, and thus, these previous studies may suffer from omitted variable bias. As in this paper, most studies performed to date have examined the behavior of professionals working in a Big Four firm. These companies are known for their up-or-out system accompanied by long working hours, demanding professional examinations, and dog-eat-dog behavior at higher levels. Therefore, it is reasonable that employees who remain in such an organization differ with respect to their personality traits from those who leave the firm. However, not only the decision to remain in a specific organization but also the decision to remain working as a tax professional should be affected by individual personality traits. Two basic factors that cause people to stay longer and be promoted to the next employment level are job performance and job satisfaction. Therefore, we are able to draw inferences from the vast literature concerning personality traits and job performance (for a review see Johnson et al. 2011) and job satisfaction (for a review see Tokar et al. 1998).

Research shows that conscientiousness is directly (Alessandrini & Vecchione 2012, Johnson et al. 2011, Barrick & Mount 1991) and neuroticism is inversely (Johnson et al. 2011, Tokar et al. 1998 with further references) related to job performance. Because the direction of influence of these traits is equal to their impact found for job satisfaction (Furnham et al. 2002, Tokar et al. 1998 with further references), we assume that conscientiousness and emotional stability have a positive effect on experience (measured as years working as tax professional or years belonging to the Big Four accounting firm).

Evidence for the influence of extraversion indicates that extroverts perform better (e.g., Alessandrini & Vecchione 2012) or are more likely to choose managerial career paths (Garden 1997). Studies indicating the contrary (e.g., Hayes et al. 1994) are not concerned with professions comparable to those in the tax field. Again, because the studies examining the impact of extraversion to job satisfaction confirm the results observed for job performance (e.g., Furnham et al. 1999), we expect extraversion to have a positive effect on our experience measures.

Although evidence is underrepresented, agreeableness has also been found to facilitate higher job performance (Rothmann & Coetzer 2003). Because there are no results regarding agreeableness and job satisfaction stating the opposite and we assume that agreeable employees are more adaptive and do not easily tend to criticize the status quo, the overall impact on our experience measures should be positive.

Prior studies have only found conflicting evidence with respect to the influence of openness on job performance (Rothmann & Coetzer 2003, Hayes et al.1994) and no significant impact on job satisfaction. However, concerning the idea that people scoring high in openness have a preference for new experiences, we suggest that such people are more likely change firms or jobs. Hence, we expect an inverse relation between openness and our experience measures.

In sum, we expect that experience is affected by personality traits and therefore anticipate an indirect effect of personality traits on tax aggressiveness, which leads to our final hypothesis:

H4: There is an indirect effect of personality traits on tax aggressiveness

Sample and survey instrument

Sample

We invited 650 tax employees of a Big Four firm and 250 economics or business administration students taking tax and accounting classes at four different German universities to participate in an online survey. We received answers from 69 tax professionals and 71 tax students. We removed three subjects from the professional sample and 14 subjects from the student sample because these subjects did not answer the questions seriously or they are identified as outliers.[1] Therefore, our final sample consists of two peer groups comprising 66 tax professionals as well as 57 tax students

The tax professionals work in different areas of the service line "Tax" for the same Big Four firm in Germany and have at least a managers' degree (manager: 35, senior manager: 20, partner/director: 7). The professional group consists of 19 females and 46 males, with only two subjects having not passed a professional exam to become a tax advisor, lawyer, or CPA, for example. The tax student group consists of 19 females and 38 males. Thereof, 33 students are bachelor students and 24 master students with an average absolved length of study of 4 (bachelor students) and 9 semesters (master students).

[1] The following cases were identified as not having been answered seriously: One tax professional recommending approving a tax-structuring idea that bears a 100% risk of failure, and thirteen students demanded fees below the given costs of the firm. Outliers were detected by applying the method of mean plus or minus three SD to the tax aggressiveness and the sums of the items indicating the particular personality trait of the Big Five. There are no outliers with respect to tax aggressiveness, whereas the scores regarding conscientiousness and agreeableness each showed two outliers. Because one subject was classified as being an outlier with respect to both personality traits, the total number of outliers is three.

Survey Instrument

All subjects were asked to perform an online survey, whose questions can be found below. First, we presented a setting to the subjects and asked whether they were willing to propose the execution of a specific tax planning idea to a client. The probability that the financial administration challenges the restructuring and wins in the case of litigation (failure probability) was supposed to be approximately 50%. This setting randomly either excludes or introduces potential reputational losses for the advisor approving the restructuring. The second question asked the subjects to indicate the maximum risk that would be allowed to be inherent in the tax planning task if they were willing to provide a positive recommendation for the implementation.

Setting I [II]

Please imagine the following situation:

An important client asks you for a cost estimate for the preparation of a tax opinion regarding a tax planning idea you proposed to him over the phone. The sole national restructuring should result in tax savings of € 1,400,000.

Because your tax planning idea is based on jurisprudence, which is not yet affirmed by the Federal Fiscal Court, the likelihood that the financial administration will challenge the restructuring and will win in case of litigation is supposed to be ~50%. If this were the case, you would not have to fear a loss of the client; however, the client would reclaim the fees paid to you. Your liability insurance would not bear this amount due to the lack of a consulting error.

Your firm would not have to fear reputational losses. [Notwithstanding, you would have to fear reputational losses due to negative press coverage that claims a consulting error.]

For the preparation of the opinion, you assess 80 hours of work to be performed by a second-year assistant and an additional 20 hours for the review by a senior manager. [The preparation of the opinion should require 100 working hours that imply full costs of € 12,000.]

Question 1:

With a view to the risk mentioned above, would you prepare the requested memo advising the client to execute the restructuring?

We advise the client to execute the restructuring: □ yes
□ no

Question 2:

According to your first answer, you would [not] advise the client to execute the restructuring if the failure probability amounts to approx. 50%. Please indicate the marginal failure-probability that was allowed to be inherent to the tax planning task if you give a positive recommendation for the implementation.

The described setting controls for a set of variables have been observed to influence tax aggressiveness in previous studies, namely reputational losses, the importance of the client, the value of tax savings, client loss, the ambiguity and the kind of prior evidence, the possibility of being liable to client, and the effort needed to provide advice to the client. Hence, there should be no differences in perceptions about these variables and therefore no influence on tax aggressiveness.

We use the answer to the second question as our measure of tax aggressiveness. This corresponds to US preparer penalty provisions (IRC Sec. 6694 (a) (2)). Moreover, this approach of directly measuring the willingness to take tax risks offers the advantage of being able to isolate the direct effects of experience and personality traits on the willingness to take tax risks. If we had given participants a specific tax case and then asked for their recommendations, experience and personality traits would have also affected the outcome expectation (e.g., the subjects estimated probability to prevail in negotiations with the IRS). Indeed, as noted by O'Donnell et al. (2005), a vast majority of previous studies do not control for the interactions of experience and outcome expectations. Our approach avoids this potential drawback because we make sure that the tax risk objectively included in the task of our study equals the tax risk subjectively recognized by the participants.

The second chapter asked the subjects to provide personal information such sex, age, work experience, professional examinations, and general risk attitudes. We use the years working as a tax professional and, alternatively, the years working at the accounting firm to measure the subjects' experience. The use of these two alternative experience measures allows us to disentangle the effects of pure professional experience and organizational socialization.

Moreover, we use the question regarding the general risk attitude to determine for whether the factors that determine the willingness to take tax risks differ from the determinants of general risk taking. It should be noted that we use an experimentally validated question to measure general risk attitude for which data of a representative sample of the German population exist (Dohmen et al. 2011). Thus, we are able to compare the risk attitude of the sample to the general risk attitude in the population.

In the third chapter of the questionnaire, we used a 15-item design developed by Gerlitz and Schupp (2005) - the so called "BFI-S" - to control for the Big Five personality traits. Within the BFI–S, each of the five personality factors is measured with 3 items on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The reliability and validity of this short version of the Big Five approach has been implemented by the aforementioned authors and is used in different waves of the German Socio-Economic Panel (SOEP) survey (Lang et al. 2011). The German SOEP (Wagner et al. 2007) is a representative household panel study with probability sampling that has been conducted annually since 1984. As with the general risk attitude, we are able to compare sample results with attitudes observed for the population. To obtain a parsimonious representation for the five personality traits, we conducted a principal components factor analysis followed by varimax rotation because this is the most prevalent method in prior research (for a review see Caruso & Cliff 1997). Our results confirm the results of Gerlitz and Schupp (2005) because the same three items mainly represent one of the aggregated five personality factors. The five dummy factors emerged with eigenvalues of FAC_E=2.281, FAC_N=2.161, FAC_O=1.945, FAC_A=1.690, and FAC_C=1.650 explaining 65% of the total variance in the data. The respective factor loadings are shown in Appendix B.

Estimation strategy

To control for potential endogeneity of experience, we use an endogenous treatment-effects regression model, as developed by Maddala (1983), with tax aggressiveness being the

dependent variable and experience the binary endogenous treatment variable. We use different transformations of the continuous experience variable. The model is composed of an equation for the tax aggressiveness (regression equation) and an equation for the endogenous treatment indicating subjects with high experience (selection equation):

$$(1)\ TAX_AGGRESSIVENESS = \beta_1 \times REP_LOSS + \beta_2 \times FAC_E + \beta_3 \times FAC_N + \beta_4 \times FAC_O + \beta_5 \times FAC_A + \beta_6 \times FAC_C + \delta \times HIGH_EXP + \varepsilon$$

$$(2)\ HIGH_EXP = \begin{cases} 1, \text{ if } & \gamma_1 \times FAC_E + \gamma_2 \times FAC_N + \gamma_3 \times FAC_O + \gamma_4 \times FAC_A \\ & + \gamma_5 \times FAC_C + u > 0 \\ 0, \text{ otherwise} & \end{cases}$$

HIGH_EXP represents our measure controlling for different levels of experience, and *TAX_AGGRESSIVENESS* measures tax aggressiveness as indicated by the maximum risk the participants are ready to accept. The dummy variable *REP_LOSS* controls for the effect of reputational losses ("1"= "setting with reputational losses"; "0" = "setting without reputational losses"). *FAC_E*, *FAC_N*, *FAC_O*, *FAC_A*, and *FAC_C* denote the personality traits Extraversion, Neuroticism, Openness to Experience, Agreeableness, and Conscientiousness, respectively. The error terms ε and u are bivariate normal with mean zero and covariance matrix $\begin{bmatrix} \sigma_\varepsilon & \rho \\ \rho & 1 \end{bmatrix}$, where σ_ε denotes the variance of the regression's equation error term and ρ the correlation between the error terms of the regression equation and the selection equation. The treatment-effects model assumes ρ to be nonzero. We estimate the model using full maximum likelihood.

Results

Descriptive statistics

Table 1 presents descriptive results for tax aggressiveness. On average, subjects are willing to provide a positive recommendation for the tax planning structure up to a failure probability of 36%. Panel A of Table 1 shows tax aggressiveness for different levels of personality traits. We find tax aggressiveness to be significantly greater for less extraverted subjects (two sample t-test: $p=0.012$), whereas we observe no significant differences regarding the other personality traits. Panel B of Table 1 shows tax aggressiveness for different levels of experience. The results indicate that tax aggressiveness decreases with increasing years of experience. As indicated by a two-sample t-test, tax students are more aggressive than tax professionals ($p=0.043$). Thus far, the results are in line with hypotheses H1 and H2, i.e., personality traits are related to tax aggressiveness (H1) and experience appears to reduce tax aggressiveness. However, the descriptive results contradict H3. Although, as indicated by panel C of Table 1, tax aggressiveness is significantly reduced if we introduce the risk of reputational costs (two sample t-test: $p=0.001$), this reduction is not lower for highly experienced professionals than for non-experienced subjects (see the students group versus professionals with more than 10 or 15 years of experience in Table 2). Highly experienced professionals do not appear to suffer from cognitive conservatism.

Panel A of Table 3 compares personality traits between the sample and the German population. As indicated by a two-sample t-test, subjects in the sample are significantly less neurotic and less conscious ($p=0.05$, $p<0.001$). Regarding the other personality traits, we find no significant differences between the sample and the German population. Panel B of Table 3 shows the values of personality traits for different levels of experience. The data indicate that experience is indeed endogenous with respect to personality traits (H4). In particular, neuroticism and openness seem to negatively affect years of experience, whereas consciousness seem to positively influence years of experience. In sum, the descriptive results are in line with H1, H2, and H4 but indicate the rejection of H3.

		Observations	Tax Aggressiveness Mean	Std. dev.	Median
Total		123	35.53	20.06	30.00
Panel A: Personality Traits					
Extraversion	*high*	62	31.03	20.01	26.00
	low	61	40.10	19.22	35.00
Neuroticism	*high*	62	33.44	21.05	27.50
	low	61	37.66	18.94	35.00
Openness	*high*	62	35.03	19.54	30.00
	low	61	36.03	20.73	33.00
Agreeableness	*high*	62	36.63	19.88	34.00
	low	61	34.41	20.35	30.00
Conscientiousness	*high*	61	34.87	20.81	30.00
	low	62	36.18	19.45	33.00
Panel B: Experience					
Tax Students		57	39.46	19.97	40.00
Years working as a tax professional ≤ 5		10	36.40	16.23	29.00
5 <Years working as a tax professional ≤ 10		28	31.64	20.93	23.00
10 <Years working as a tax professional ≤ 15		19	35.79	20.43	30.00
15 <Years working as a tax professional		9	21.22	15.41	20.00
Years working at the accounting firm ≤ 5		20	39.70	18.83	42.00
5 <Years working at the accounting firm ≤ 10		28	30.71	18.39	25.00
10 <Years working at the accounting firm ≤15		12	28.25	22.74	25.00
15 <Years working at the accounting firm		6	21.33	17.22	15.00
Panel C: Reputation Loss					
With reputation loss		66	29.88	18.61	28.50
Without reputation loss		57	42.07	19.84	50.00

The table shows the descriptive results regarding subjects' tax aggressiveness (measured as the maximum tax risk subjects are ready to accept). Panel A shows tax aggressiveness for different levels of the Big Five personality traits. The personality traits are dichotomized at the median. *High* (*low*) denotes values above (below) the median. Panel B shows tax aggressiveness for different levels of experience (measured as years working as tax professional or alternatively as years working at the accounting firm). Panel C displays tax aggressiveness for the two treatment groups with and without reputation losses.

Table 1: Descriptive results of subjects' tax aggressiveness

	Tax Aggressiveness								
		working as a tax professional				working at the accounting firm			
	Student	≤ 5 years	5<years ≤ 10	10<years ≤ 15	15<years	≤ 5 years	5<years≤ 10	10<years ≤ 15	15<years
Reputation Loss									
Yes	31.63	36.50	31.07	25.45	14.50	34.08	31.15	23.00	8.33
No	48.15	36.25	32.31	50.00	26.60	48.13	30.33	38.75	34.33

The table shows the mean of subjects' tax aggressiveness for the two treatment groups (with and without reputation loss) for different levels of experience (measured as years working as tax professional or, alternatively, as years working at the accounting firm).

Table 2: Cognitive Conservatism - Tax aggressiveness and the interaction of reputation loss and experience

	Personality Traits				
	Extra-version	Neuro-ticism	Openness	Agree-ableness	Conscien-tiousness
Panel A: Sample versus population					
Sample	4.82	3.59	4.33	5.24	5.51
	(1.21)	(1.32)	(1.23)	(0.81)	(0.84)
Population	4.78	3.82	4.41	5.35	5.82
	(1.14)	(1.22)	(1.21)	(0.98)	(0.95)
Panel B: Experience					
Tax Students	4.98	3.70	4.47	5.29	5.40
	(1.23)	(1.46)	(1.22)	(0.87)	(0.89)
Years working as a tax professional ≤ 5	4.13	4.57	4.43	5.37	4.97
	(0.98)	(1.11)	(0.96)	(0.48)	(0.67)
5 <Years working as a tax professional ≤ 10	4.80	3.68	4.19	5.12	5.64
	(1.17)	(1.20)	(1.34)	(0.76)	(0.82)
10 <Years working as a tax professional ≤ 15	4.81	3.00	4.46	4.96	5.77
	(1.35)	(0.87)	(1.11)	(0.81)	(0.69)
15 <Years working as a tax professional	4.67	2.78	3.48	5.74	5.89
	(1.04)	(0.90)	(1.28)	(0.76)	(0.71)
Years working at the accounting firm ≤ 5	4.80	3.53	4.58	5.23	5.62
	(1.24)	(1.18)	(1.19)	(0.68)	(0.80)
5 <Years working at the accounting firm ≤ 10	4.51	3.79	4.05	5.08	5.52
	(1.13)	(1.32)	(1.20)	(0.76)	(0.80)
10 <Years working at the accounting firm ≤ 15	5.00	2.89	4.44	5.17	5.75
	(1.26)	(0.92)	(1.17)	(0.88)	(0.85)
15 <Years working at the accounting firm	4.44	3.22	3.22	5.67	5.72
	(1.17)	(0.58)	(1.20)	(0.82)	(0.65)

The table shows the mean of subjects' Big Five personality traits. Each of the five personality factors is measured with 3 items on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The table displays the mean of the three items indicating the particular trait. Standard deviations are presented in brackets. Panel A compares personality traits between the population (according to the German SOEP year 2009) and the sample. Panel B shows personality traits for different levels of experience (measured as years working as tax professional or, alternatively, as years working at the accounting firm).

Table 3: Descriptive results of subjects' Big Five personality traits

Multivariate analysis

To test whether the univariate results also hold in a multivariate scenario, we use the above-described treatment-effects model. Table 4 shows the results. The upper panel displays the results of the regression equation (1), whereas the lower panel presents the results of the selection equation (2). We use two different measures for experience: first, years of professional experience, and second, years of working at the Big Four accounting firm. The use of these two alternative measures offers the advantage of differentiating between pure professional experience and experience gained in the organization. The impact of these variables may differ due to organization socialization (e.g., Fogarty 1992, Chow et al. 2002). We dichotomize the experience variable to distinguish between subjects with high and low experience. Kaplan et al. (1988) and Pei et al. (1992) use a level of five years of professional experience to distinguish between professional with high and low experience. However, one could argue that the development of "generalized scripts" in the "tax arena" requires much more than five years of professional experience. Therefore, we present the results for three different levels of dichotomization using five, ten, and fifteen years as thresholds. Thus, Table 4 displays six models: In models (I) to (III), the dummy variable HIGH_EXP equals one if the subject has worked as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable HIGH_EXP equals one if the subject has worked at the accounting firm for more than 5, 10, and 15 years, respectively. It should be noted that we refrained from including covariates such as gender and age because these variables are significantly correlated with the Big Five personality traits.[2]

[2] Results including age and gender as covariates are available from the authors upon request. It should be noted that these results do not qualitatively differ from the results reported in this paper.

	Years as tax professional			Years at the accounting firm		
	>5 years	>10 years	>15 years	>5 years	>10 years	>15 years[3]
VARIABLES	(I)	(II)	(III)	(IV)	(V)	(VI)
Regression equation: Tax Aggressiveness						
REP_LOSS	-11.20***	-11.11***	-10.17***	-7.993***	-9.561***	-10.24**
	(3.383)	(3.423)	(3.258)	(2.870)	(3.196)	(4.043)
FAC_O	0.117	1.069	-2.216	-4.623*	-2.021	-3.371
	(2.178)	(2.040)	(1.840)	(2.576)	(2.164)	(2.666)
FAC_C	1.266	-0.0928	2.153	2.939	2.504	2.021
	(2.644)	(2.225)	(1.810)	(2.542)	(2.139)	(2.204)
FAC_E	-2.983*	-3.141*	-1.894	-5.726**	-1.816	-2.102
	(1.667)	(1.802)	(1.813)	(2.550)	(2.137)	(2.163)
FAC_A	1.350	2.093	4.093**	0.778	2.658	4.736**
	(2.247)	(1.825)	(1.819)	(2.538)	(2.133)	(2.408)
FAC_N	-1.265	0.514	-2.984	-2.474	-4.024*	-1.936
	(2.590)	(2.929)	(1.831)	(2.546)	(2.178)	(2.212)
HIGH_EXP	-7.325	9.625	-52.78***	-57.73***	-54.13***	-88.00**
	(20.57)	(20.77)	(5.486)	(4.348)	(5.978)	(34.42)
Constant	44.87***	39.30***	44.85***	61.41***	48.58***	45.32***
	(9.659)	(5.393)	(2.502)	(3.227)	(2.715)	(3.243)
Selection equation: Experience						
FAC_O	-0.196	-0.198	-0.352**	-0.191*	-0.192	-0.487**
	(0.121)	(0.131)	(0.176)	(0.109)	(0.130)	(0.243)
FAC_C	0.281**	0.221	0.325*	0.126	0.226*	0.136
	(0.124)	(0.138)	(0.175)	(0.106)	(0.123)	(0.231)
FAC_E	0.0212	0.0727	0.144	-0.0652	0.168	0.160
	(0.120)	(0.138)	(0.177)	(0.105)	(0.126)	(0.256)
FAC_A	-0.211*	-0.119	0.422**	-0.0163	0.132	0.267
	(0.119)	(0.136)	(0.164)	(0.102)	(0.117)	(0.223)
FAC_N	-0.275**	-0.474***	-0.262	-0.118	-0.243*	-0.186
	(0.123)	(0.156)	(0.183)	(0.108)	(0.126)	(0.244)
Constant	-0.134	-0.867***	-1.823***	-0.313***	-1.124***	-1.970***
	(0.119)	(0.144)	(0.237)	(0.108)	(0.148)	(0.292)

The table shows the results of the treatment-effects model with tax aggressiveness as the dependent variable and the level of experience (*HIGH_EXP*) as the binary endogenous variable. In models (I) to (III), the dummy variable *HIGH_EXP* equals one if the subject has worked as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable *HIGH_EXP* equals one if the subject has worked at the accounting firm for more than 5, 10, and 15 years, respectively. *REP_LOSS* is a dummy variable that takes on a value of one if the subject is in the treatment group with reputation losses. FAC_E, FAC_N, FAC_O, FAC_A, and FAC_C denote the personality traits Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness, respectively. Wald tests indicate that the covariates used in the regression equations are appropriate (for all models: $p<0.017$).
The number of observations amounts to 123 in all six models. Standard errors are given in parentheses.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 4: Results of the Treatment-effects Model

[3] Model VI could not be estimated by maximum-likelihood estimation because the maximization procedure failed to converge to a solution. Therefore, we estimate this model by a two-step approach.

We obtain that the effects of personality traits depend on how we differentiate between subjects with high and low experience. This result already indicates that personality traits have an additional indirect effect on tax aggressiveness by influencing the respective experience level (H4).

With respect to H1, the treatment-effects models show that personality traits directly affect preparers' tax aggressiveness. Particularly, extraversion, openness, and neuroticism reduce tax aggressiveness, whereas agreeableness increases tax aggressiveness. The direction of these effects is, at least in part, surprising. Agreeableness is usually associated with lower risk taking as well as lower aggressive behavior. However, a possible consideration is that higher agreeableness might be correlated with higher client advocacy, resulting in increased levels of tax aggressiveness. It should be noted, that our design describes "an important client" and that the tax planning idea was already proposed to the client over the phone. It is plausible that highly agreeable individuals therefore feel more obliged to clients' interests. The results of an additional analysis using the single items of the Big Five questionnaire support this assumption. In particular, these results indicate that the item "I am someone who *is considerate and friendly*" is responsible for the positive effect of agreeableness on tax aggressiveness, which could imply that highly agreeable subjects are particularly considerate of the rights and feelings of their clients. However, because we do not ask for aspects of client advocacy, the clarification of this question must be left for further research. The negative relation between extraversion and tax aggressiveness may be regarded as surprising as well because it is generally associated with higher risk taking and sometimes also aggression. A conceivable explanation might be that extraverts have a preference to receive attention or to be in the limelight and that this tendency might be connected with a high preference for face-saving. Hence, actions resulting in potential losses of personal reputation could be unpopular for people scoring high in extraversion.

Regarding the direct impact of experience on tax aggressiveness (H2), we observe the expected negative effect on tax aggressiveness if we measure experience by the years working at the accounting firm (models IV to VI). Alternatively, if we use, years working as a tax professional as a measure for experience (models I to III), we only find significant results if we distinguish between very highly experienced (i.e., more than 15 years) subjects and other subjects. It should be noted that none of the subjects with more than fifteen years of professional experience worked less than five years at the accounting firm. Thus, our results provide evidence that professional experience alone does not necessarily affect tax aggressiveness but that experience in a specific organizational environment does have an effect. In our sample, we find robust evidence that with increasing working experience in the respective accounting firm, tax aggressiveness decreases significantly. This result points toward the importance of organizational culture for individual decision making and is also in line with the results of studies relating organizational culture to misconduct (Andreoli & Lefkowitz 2009).

According to H3, we expect that experienced professionals show cognitive conservatism, i.e., they react less strongly to a variation of the context. Hence, we should observe a significant interaction effect of *REP_LOSS* and *HIGH_EXP*. We conduct the same treatment-effect regressions shown in Table 4 including the interaction term. The results are shown in Appendix C. As already indicated by the descriptive results, we do not find any significant interaction. Thus, we cannot confirm H3: The responses of experienced professionals with respect to potential reputation damages do not differ from the response of less-experienced subjects. Both groups significantly reduce tax aggressiveness if they are threatened by reputational losses.

Finally, the selection equation in Table 4 shows that the years of work experience either as a tax professional or at the accounting firm are indeed endogenous with respect to personality traits (H4). Although we find no significant effects for extraversion and only contradicting

results for agreeableness, we obtain significant results for the remaining three traits. Openness and neuroticism negatively affect the experience measures, whereas consciousness is positively related to experience in the tax professional arena. These results are as expected. The significance of these variables underscores the importance of explicitly considering the relation between experience and personality traits when modeling tax aggressiveness. In addition to the direct effects that personality traits have on tax aggressiveness (H1), there are additional indirect effects, e.g., openness negatively influences years of experience, and because experience is negatively related to tax aggressiveness, openness (indirectly) reduces tax aggressiveness. Thus, H4 is confirmed.

Robustness checks

In this subsection we present the results of two robustness checks. The first test addresses the appropriateness of the treatment-effects model; the second test provides evidence that our setting is tax-specific and that the results differ from general risk taking.

Appropriateness of the treatment-effects model

The treatment-effects model assumes that the correlation between the error terms of the regression and the selection equation is nonzero. To check for a potential estimation bias, we therefore conduct likelihood ratio tests that compare the joint likelihood of an independent probit model for the selection equation and a regression model for the observed data against the treatment-effects model likelihood (Guo & Fraser 2010: 103). The results suggest that applying the treatment-effects regressions is appropriate only for models (III), (IV), and (VI). To test the robustness of our results, we therefore conduct independent OLS regressions as well as logistic regressions (for the selection equation). The results are presented in the Appendix and confirm the above-presented results as well for the remaining models.

Overall risk propensity

To ensure that our model measures tax aggressiveness but not the general risk-taking behavior of the participants, we replace *TAX_AGGRESSIVENESS* by *RISK_PROP* representing the overall risk assessment of the subjects. We use an experimentally validated question to measure general risk attitude, for which data of a representative sample of the German population exists (Dohmen et al. 2011). Subjects must indicate their general risk propensity on a Likert scale ranging from zero (`not at all willing to take risks') to ten (`very willing to take risks'). The average response in the sample amounts to 4.14 (SD=1.95), indicating that the sample is, on average, slightly risk-averse. Compared to the general German population (mean= 4.31; SD=2.309), according to the German SOEP for the year 2010 (Wagner et al. 2007), there is no significant difference (two sample t-test, p=0.330).

The results of the treatment-effects models are shown in Appendix E. As expected, the introduction of potential reputational losses does not affect risk propensity, indicating that the randomization of subjects to the two treatments was successful. Moreover, experience, which was observed to significantly reduce tax risk taking, has no impact on general risk propensity (if experience is measured by the years working at the accounting firm) or only an ambiguous impact (if experience is measured by the years working as a professional). Regarding the personality traits, we find openness to significantly increase risk propensity and neuroticism to significantly decrease risk propensity. Both observations are in line with the results of previous studies (e.g., Nicholson et al. 2005, Soane & Chmiel 2005).

Due to the evident differences in the determinants compared with the tax aggressiveness model, we conclude that our design does not measure general risk behavior but tax-context-specific behavior.

Conclusions

This study investigates how the Big Five personality traits and professional experience affect the aggressiveness of tax professionals' recommendations. To this end, we conducted an online survey among tax professionals working at a Big Four accounting firm as well as among tax students. As a measure of tax aggressiveness, we use the maximal chance of failure a professional is willing to accept for providing a positive recommendation. Our results show that personality traits have a direct effect on tax aggressiveness: extraversion, openness, and neuroticism reduce tax aggressiveness, whereas agreeableness increases tax aggressiveness. Thus, the Big Five personality traits should be considered in future behavioral accounting research.

Moreover, we find that increasing working experience significantly decreases tax aggressiveness. Specifically, our results show that professional experience alone does not necessarily affect tax aggressiveness but that experience in a specific organizational environment is important. In our sample, experience has an effect only if it is developed in the respective accounting firm. This result hints at the importance of organizational culture, which appears to significantly affect tax professionals' individual decision making. We believe this to be a particularly interesting result that deserves further attention in future accounting research.

In addition, we show that subjects significantly reduce tax aggressiveness if they are threatened by reputational losses. Contrary to our predictions, we do not find evidence of cognitive conservatism among highly experienced professionals. The responses of experienced professionals with respect to potential reputation damages do not differ from the responses of less-experienced subjects. Finally, our results clearly show that in addition to the aforementioned direct effects of personality traits on tax aggressiveness, there are additional indirect effects, which are due to a selection effect. Subjects working at a Big Four accounting firm for several years differ significantly with respect to their personality traits from those who

do not have this experience. This result underscores the importance of explicitly considering the relation between experience and personality traits when modeling tax aggressiveness in future research. Previous studies on the effects of experience ignoring this relation may potentially suffer from omitted variable bias.

References

Abelson, R.P. (1976). Script processing in attitude formation and decision making. In: J.S. Carroll and J.W. Payne (eds.), Cognition and social behavior. Hillsdale, NJ: Erlbaum.

AICPA - American Institute of Certified Public Accountants (2008). *News Release: House Ways and Means Committee Approves Bill That Would Enhance Role of CPAs as Taxpayer Advocates.* Washington D.C., April 9, 2008.

Alessandrini, G., & Vecchione, M. (2012). The high-order factors of the Big Five as predictors of job performance. *Personality and Individual Differences*, 779-784.

Andreoli, N., & Lefkowitz, J. (2009). Individual and Organizational Antecedents of Misconduct in Organizations, *Journal of Business Ethics*, 309-332.

Ayres, F. L., Jackson, B. R., & Hite, P. S. (1989). The economic benefits of regulation: Evidence from professional tax preparers. *The Accounting Review*, 300-312.

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 1-26.

Blanthorn, C., Burton, H. A., & Fisher, D. (2013). The aggressiveness of tax professional reporting: Examining the influence of moral reasoning. *Advances in Accounting Behavioral Research*, 149-181.

Bobek, D., Hageman, A., & Radtke, R. (2010). The Ethical Environment of Tax Professionals: Partner and Non-Partner Perceptions and Experiences, *Journal of Business Ethics*,637-654.

Borghans, L., Duckworth, A. L., Heckman, J. J., & Bas ter Weel (2008). The Economics and Psychology of Personality Traits, *Journal of Human Resources*, 972–1059.

Brown, K. B. (2011). A Comparative Look at Regulation of Corporate Tax Avoidance: Springer.

Carnes, G. A., Harwood, G., & Sawyers R. (1996). The determinants of tax professionals' aggressiveness in ambiguous situations, *Advances in Taxation*, 1-26.

Caruso, J. C., & Cliff N. (1997). An Examination of the Five Factor Model of normal personality variation with reliable component analysis. *Personality and Individual Differences*, 317-325.

Charness, G., & Jackson, M. O. (2009). The role of responsibility in strategic risk-taking, *Journal of Economic Behavior & Organization*, 241–247.

Chen, E., Gavious, I., & Yosef, R. (2013): The Relationship Between the Management of Book Income and Taxable Income Under a Moderate Level of Book-Tax Conformity, *Journal of Accounting, Auditing & Finance* 28 (4), 323–347.

Chow, C. W., Harrison, G. L., McKinnon, J. L., & Wu, A. (2002). The organizational culture of public accounting firms: evidence from Taiwanese local and US affiliated firms, *Accounting, Organizations and Society*, 347–360.

Cloyd, C. B. (1995). The effects of financial accounting conformity on recommendations of tax preparers. *The Journal of the American Taxation Association*, 82-107.

Cruz, C. A., Shafer, W. E., & Strawser, J. R. (2000). A multidimensional analysis of tax practitioners' ethical judgments. *Journal of Business Ethics*, 223-244.

Cuccia, A. (1994). The effects of increased sanctions on paid tax preparers: Integrating economic and psychological factors . *The Journal of the American Taxation Association*, 41-66.

Duncan, W., Larue, D., & Reckers, R. (1989). An empirical examination of the influence of selected economic and noneconomic variables on decision making by tax professionals. *Advances in Taxation*, 91-106.

Emerson, T. N., Conroy, S., & Stanley, C. (2007). Ethical Attitudes of Accountants: Recent Evidence from a Practitioners' Survey, *Journal of Business Ethics*, 73-87.

Erard, B. (1993). Taxation with representation. An Analysis of the role of tax practitioners in tax compliance, *Journal of Public Economics* 52, 163-197.

Fogarty, T. J. (1992). Organizational socialization in accounting firms: A theoretical framework and agenda for future research, *Accounting, Organizations and Society*, 129–149.

Furnham, A., Forde, L., & Ferrari, K. (1999). Personality and job satisfaction. *Personality and Individual Differences*, 1035-1043.

Furnham, A., Petrides, K. V., Jackson, C. J., & Cotter, T. (2002). Personality and job satisfaction. *Personality and Individual Differences*, 1325-1342.

Garden, A. (1997). Relationships between MBTI profiles, motivation profiles, and career paths. *Journal of Psychologycal Type*, 3-16.

Gerlitz, J.-Y., & Schupp J. (2005). On the elevation of the Big-Five based personality traits in the SOEP. Documentation of the development of BFI-S on the basis of the SOEP-pretests 2005. *DIW Research Notes 4.* Berlin.

Gibbins, M. (1984). Propositions about the Psychology of Professional Judgment in Public Accounting, *Journal of Accounting Research*, 103–125.

Goldberg, L. R. (1990). An alternative ''description of personality'': The Big Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216–1229.

Graham, J., Hanlon, M., & Shevlin, T. (2011). Inside the corporate tax department: insights on corporate decision making and tax aggressiveness. *Working paper*, Duke University, MIT, and University of Washington.

Guo, S., & Fraser, M. W. (2010). Propensity score analysis, *Statistical methods and applications.*

Hansen, V. J., & White, R. A. (2012). An investigation of the impact of preparer penalty provisions on tax preparer aggressiveness. *Journal of the American Taxation Association.* 137-165.

Hayes, T., Roehm, H. A., & Castellano, J. P. (1994). Personality correlates of success in total quality manufacturing. *Journal of Business and Psychology*, 397-411.

Helleloid, R. (1989). Ambiguity and the evaluation of client documentation by tax professionals. *The Journal of the American Taxation Association,* 22-36.

Johnson, L. M. (1993). An empirical investigation of the effects of advocacy on preparers' evaluations of judicial evidence, *The Journal of the American Taxation Association,* 1-22.

Johnson, M. K., Rowatt, W. C., & Petrini, L. (2011). A new trait on the market: Honesty-Humility as a unique predictor of job performance ratings. *Personality and Individual Differences*, 857-862.

Kadous, K., & Magro A. M. (2001). The Effect of Exposure to Practice Risk on Tax Professionals' Judgments and Recommendations. *Contemporary Accounting Research*, 451-475.

Kaplan, S. E., Reckers, P. M., West, S. G., & Boyd, J. C. (1988). An examination of tax reporting recommendations of professional tax preparers. *Journal of Economic Psychology*, 427-443.

Kaplan, S. E., & Reckers, P. M. J. (1989). An examination of information search during initial audit planning, *Accounting, Organizations and Society*, 539–550.

Klepper, S., & Nagin, D. (1989). The role of tax preparers in tax compliance. *Policy Sciences,* 167-194.

Kohlberg, L.: (1981). The Philosophy of Moral Development: Moral Stages and the Idea of Justice (Harper & Row, San Francisco).

Lang, F., John, D., Lüdtke, O., Schupp, J., & Wagner, G. (2011). Short assessment of the Big Five: robust across survey methods except telephone interviewing, *Behavior Research Methods,* 548-567.

LaRue, D., & Reckers P. (1989). An empirical examination of the influence of selected factors on professional tax preparers' decision processes. *Advances in Accounting*, 37-50.

Lisowsky, P. (2010). Seeking Shelter: Empirically Modeling Tax Shelters Using Financial Statement Information. *The Accounting, Review*, 1693-1720.

Maddala, G. S. (1983). Limited-Dependent and Qualitative Variables in Econometrics. Cambridge: Cambridge University Press.

McCrae, R. R., & Costa, P. T. (1990). Personality in adulthood. New York: Guilford.

McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, 509-516.

McGill, G. A. (1988). The CPA's role in income tax compliance: An empirical study of variability in recommending aggressive tax positions. *Unpublished Ph.D. dissertation*. Texas Tech University.

McGuire, S. T., Omer, T. C, & Wang, D. (2012), Tax Avoidance: Does Tax-Specific Industry Expertise Make a Difference? *The Accounting, Review*, 975-1003.

Milliron, V. (1988). A conceptual model of factors influencing tax preparers' aggressiveness, *Contemporary Tax Research,* 1-15.

Nam, S., & Ronen, J. (2012): The Impact of Nonaudit Services on Capital Markets, *Journal of Accounting, Auditing & Finance* 27 (1), 32–60.

Newberry, K., Reckers, P. M. J., & Wyndelts, R. W. (1993). An examination of tax practitioner decisions: the role of preparer sanctions and framing effects associated with client condition. *Journal of Economic Psychology*, 439-452.

O'Donnell, E., Koch, B., & Boone, J. (2005), The influence of domain knowledge and task complexity on tax professionals' compliance recommendations. *Accounting, Organizations and Society,* 145-165.

OECD – Organization for Economic Co-Operation and Development (2008). Study into the role of tax intermediaries. *OECD publications.* Paris.

Pei, B. K. W., Reckers, P. M. J., & Wyndelts R. W. (1992). Tax professionals belief revision: The effects of information presentation sequence, client preference, and domain experience. *Decision sciences,* 175-199.

Reckers, P. M. J., Sanders, D. L., & Wyndelts R. W. (1991). An empirical investigation of factors influencing tax practitioner compliance. *Journal of the American Taxation Association*, 30-46.

Richardson, G., Taylor, G. & Lanis, R. (2013). The impact of board of director oversight characteristics on corporate tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy* 32 (3), 68-88.

Roberts, M. L., & Cargile, B. R. (1993). CPA's response to conflict in auditing and tax situations. *Unpublished Working Paper,* University of Alabama.

Rothmann, S., & Coetzer, E. P. (2003). The Big Five personality dimensions and job performance. *Journal of Industrial Psychology*, 68-74.

Schisler, D. (1994). An experimental examination of factors affecting tax preparers' aggressiveness – a prospect theory approach. *The Journal of the American Taxation Association*, 124-142.

Seetharaman, A., Sun, Y., & Wang, W. (2011): Tax-Related Financial Statement Restatements and Auditor-Provided Tax Services, *Journal of Accounting, Auditing & Finance* 26 (4), 677–698.

Soane, E., & Chmiel, N. (2005). Are risk preferences consistent? The influence of decision domain and personality. *Personality and Individual Differences*, 1781-1791.

Soane, E., Dewberry, C., & Narendran, S. (2010). The role of perceived costs and perceived benefits in the relationship between personality and risk-related choices, *Journal of Risk Research*, 303–318.

Soldz, S., & Vaillant, G. E. (1999). The Big Five Personality Traits and the Life Course: A 45-Year Longitudinal Study, *Journal of Research in Personality*, 208–232.

Spilker, B. C., Worsham, Jr., R. G., & Prawitt, D. F. (1999). Tax Professionals' Interpretations of Ambiguity in Compliance and Planning Decision Contexts, *The Journal of the American Taxation Association,* 75-89.

Tokar, D. M., Fischer, A. R., & Subich, L. M. (1998). Personality and vocational behavior: A selective review of the literature, 1993-1997. *Journal of Vocational Behavior*, 115-153.

Wagner, G., Frick, J., & Schupp, J. (2007). The German Socio-Economic Panel study (SOEP)-evolution, scope and enhancements.

Wiggins, J. S. (1968). Personality Structure. *Annual Review of Psychology*, 293-350.

APPENDIX A – Questionnaire (translated extract, original: German)

FIRST CHAPTER

Setting I [II]

Please imagine the following situation:

An important client asks you for a cost estimate for the preparation of a tax opinion regarding a tax planning idea you proposed to him over the phone. The solely national restructuring should result in tax savings of € 1,400,000.

Because your tax planning idea is based on jurisprudence that is not yet affirmed by the Federal Fiscal Court, the likelihood that the financial administration will challenge the restructuring and will win in case of litigation is supposed to be ~50%. If this were the case, you would not have to fear a loss of the client; however, the client would reclaim the fees paid to you. Your liability insurance would not bear this amount due to the lack of a consulting error.

Your firm would not have to fear reputational losses. [Notwithstanding, you would have to fear reputational losses due to negative press coverage that claims a consulting error.]

For the preparation of the opinion, you assess 80 hours of work to be performed by a second-year assistant and an additional 20 hours for the review by a senior manager. [The preparation of the opinion should require 100 working hours that imply full costs of € 12,000.]

Question 1:

With a view to the risk mentioned above, would you prepare the requested memo advising the client to execute the restructuring?

We advise the client to execute the restructuring: □ yes
□ no

Question 2:

According to your first answer, you would [not] advise the client to execute the restructuring if the failure probability amounts to approx. 50%. Please indicate the marginal failure probability that was allowed to be inherent to the tax planning task if you give a positive recommendation for the implementation.

Question 3:

With a view to the failure probability of [X]%, how high are the fees you would approx. quote to the client for the preparation of the memo? *Please see below for a repetition of the setting.*

SECOND CHAPTER

1) How many years of experience do you have as a tax accountant?

a) less than 3 years

b) 3-5 years

c) 5-10 years

d) 10-15 years

e) 15-20 years

f) more than 20 years

2) How many years have you already worked in your company?

a) less than 3 years

b) 3-5 years

c) 5-10 years

d) 10-15 years

e) 15-20 years

f) more than 20 years

3) What position do you hold in your firm?

a) Manager

b) Senior Manager

c) Director

d) Partner

e) Other

6) Which professional examinations did you pass?

a) Tax Advisor

b) German CPA

c) CPA

d) Other

20) How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? *Please tick a box on the scale, where the value 0 means `not at all willing to take risks' and the value 10 means `very willing to take risks'.*

	0	1	2	3	4	5	6	7	8	9	10
Risk propensity											

THIRD CHAPTER

Now, let us turn to something completely different. Our everyday actions are influenced by our fundamental convictions. Today's research indicates that little is known about these convictions. Below, you will find some characteristics that a person can have. Some characteristics may apply to your personality fully or not at all. Regarding other characteristics, you might not be sure. *Please tick a box on the scale, where the value 1 means `not applicable at all' and the value 7 means `fully applicable'. With the values between 1 and 7, you can adjust your assessment.*

I am someone who …	1	2	3	4	5	6	7
… works thoroughly							
… is communicative, talkative							
… is sometimes a little bit rough to others							
… is original, brings in new ideas							
… often worries about things							
… is able to forgive							
… is rather lazy							
… is able to come out of his shell, is sociable							
… likes artistic experiences							
… gets nervous easily							
… fulfills tasks in an effective and efficient manner							
… is reserved							
… is considerate and friendly							
… has a vivid phantasy/imagination							
… is relaxed, can easily handle stress							

APPENDIX B: Personality traits (results of the factor analysis)

Item	**Factor**				
I am someone who	1 FAC_E	2 FAC_N	3 FAC_O	4 FAC_A	5 FAC_C
…					
works thoroughly	-.023	-.017	-.071	.140	.781
is communicative, talkative	.820	-.103	.150	.021	.132
is sometimes a little bit rough to others (reverse coded)	-.074	.014	-.035	.752	.027
is original, brings in new ideas	.267	-.141	.754	-.111	.115
often worries about things	-.182	.817	.230	.112	.035
is able to forgive	.522	-.122	.000	.307	.025
is rather lazy (reverse coded)	.064	-.010	-.147	-.222	.667
is able to come out of his shell, is sociable	.835	-.052	.212	-.028	-.055
likes artistic experiences	.152	.059	.663	.193	-.072
gets nervous easily	-.013	.852	.001	.088	-.091
fulfills tasks in an effective and efficient manner	.041	-.238	.203	.231	.709
is reserved (reverse coded)	.695	.078	.260	-.395	-.028
is considerate and friendly	.085	-.005	.093	.777	.059
has a vivid phantasy/imagination	.088	.149	.812	-.040	-.097
is relaxed, can easily handle stress (reverse coded)	-.032	.794	-.111	-.276	-.171
	-.023	-.017	-.071	.140	.781

The table shows the rotated component matrix for the results of factor analysis (Method: principal component analysis). The rotation converged in 5 iterations (Rotation Method: Varimax with Kaiser Normalization).

APPENDIX C: Treatment-effects models with interaction of *REP_LOSS* and *EXP_HIGH*

	Years as tax professional			Years at the accounting firm		
	>5 years	>10 years	>15 years	>5 years	>10 years	>15 years
VARIABLES	(I)	(II)	(III)	(IV)	(V)	(VI)
Regression equation: Tax Aggressiveness						
REP_LOSS	-12.64***	-8.765**	-11.51***	-11.02***	-8.188**	-10.24**
	(4.611)	(4.001)	(3.563)	(3.827)	(3.706)	(4.155)
FAC_O	0.107	1.313	-2.160	-4.379*	-2.137	-3.367
	(2.164)	(2.072)	(2.313)	(2.588)	(2.161)	(2.811)
FAC_C	1.329	-0.341	2.194	2.962	2.461	2.020
	(2.623)	(2.264)	(1.999)	(2.542)	(2.130)	(2.208)
FAC_E	-2.867*	-3.427*	-1.808	-5.678**	-1.949	-2.102
	(1.685)	(1.867)	(1.919)	(2.551)	(2.133)	(2.166)
FAC_A	1.381	2.029	4.062*	0.884	2.675	4.735*
	(2.232)	(1.874)	(2.125)	(2.538)	(2.122)	(2.421)
FAC_N	-1.224	1.030	-2.983	-2.439	-4.060*	-1.934
	(2.568)	(2.943)	(2.211)	(2.546)	(2.173)	(2.233)
REP_LOSS x *HIGH_EXP*	3.113	-9.204	2.907	6.733	-4.926	-0.0756
	(6.744)	(7.816)	(9.302)	(5.512)	(6.706)	(16.65)
HIGH_EXP	-8.903	18.90	-55.29*	-61.41***	-50.84***	-87.87*
	(20.55)	(21.84)	(29.05)	(5.704)	(7.979)	(46.03)
Constant	45.61***	37.05***		63.09***	47.80***	45.31***
	(9.655)	(5.840)		(3.582)	(2.890)	(3.640)
Selection equation: Experience						
FAC_O	-0.196	-0.193	-0.452**	-0.198*	-0.198	-0.487**
	(0.121)	(0.130)	(0.211)	(0.109)	(0.130)	(0.243)
FAC_C	0.281**	0.219	0.199	0.126	0.223*	0.136
	(0.124)	(0.137)	(0.206)	(0.106)	(0.124)	(0.231)
FAC_E	0.0211	0.0766	0.227	-0.0694	0.168	0.160
	(0.120)	(0.138)	(0.236)	(0.105)	(0.126)	(0.256)
FAC_A	-0.211*	-0.125	0.261	-0.00512	0.128	0.267
	(0.119)	(0.136)	(0.199)	(0.102)	(0.117)	(0.223)
FAC_N	-0.275**	-0.473***	-0.432*	-0.111	-0.249*	-0.186
	(0.123)	(0.155)	(0.236)	(0.108)	(0.127)	(0.244)
Constant	-0.134	-0.863***	-1.829***	-0.312***	-1.129***	-1.970***
	(0.119)	(0.144)	(0.272)	(0.107)	(0.150)	(0.292)

The table shows the results of the treatment-effects model with tax aggressiveness as the dependent variable and the level of experience (*HIGH_EXP*) as the binary endogenous variable. In models (I) to (III), the dummy variable *HIGH_EXP* equals one if the subject works as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable *HIGH_EXP* equals one if the subject works at the accounting firm for more than 5, 10, and 15 years, respectively. *REP_LOSS* is a dummy variable which takes on the value of one if the subject is in the treatment group with reputation losses. FAC_E, FAC_N, FAC_O, FAC_A, and FAC_C denote the personality traits: Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness. Wald tests indicate that the used covariates in the regression equations are appropriate (for all models: p<0.018).
The number of observations amounts to 123 in all six models. Standard errors are given in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

APPENDIX D: Results of independent linear and logistic regressions

VARIABLES	(I)	(II)	(III)	(IV)	(V)	(VI)
			TAX_AGGRESSIVENESS			
REP_LOSS	-11.19***	-11.21***	-11.51***	-11.25***	-10.67***	-11.26***
	(3.499)	(3.545)	(3.462)	(3.410)	(3.521)	(3.511)
FAC_O	0.0529	0.311	-0.363	-0.420	0.0732	-0.142
	(1.744)	(1.761)	(1.745)	(1.711)	(1.748)	(1.772)
FAC_C	1.361	0.946	1.127	1.039	0.925	0.824
	(1.750)	(1.756)	(1.708)	(1.676)	(1.725)	(1.724)
FAC_E	-2.979*	-2.928*	-2.570	-3.532**	-2.783	-2.821
	(1.722)	(1.745)	(1.711)	(1.686)	(1.728)	(1.731)
FAC_A	1.280	1.758	2.667	1.642	2.050	2.436
	(1.734)	(1.738)	(1.719)	(1.672)	(1.719)	(1.741)
FAC_N	-1.357	-1.275	-1.395	-0.913	-1.266	-0.812
	(1.759)	(1.815)	(1.733)	(1.684)	(1.758)	(1.734)
EXP_MIN_5YEARS	-8.272**					
	(3.644)					
EXP_MIN_10YEARS		-6.385				
		(4.368)				
EXP_MIN_15YEARS			-19.05***			
			(6.888)			
FIRM_MIN_5YEARS				-11.91***		
				(3.530)		
FIRM_MIN_10YEARS					-10.86**	
					(5.019)	
FIRM_MIN_15YEARS						-17.06**
						(8.272)
Constant	45.30***	43.00***	43.10***	46.02***	42.84***	42.40***
	(3.003)	(2.729)	(2.564)	(2.791)	(2.600)	(2.571)
Observations	123	123	123	123	123	123
R-squared	0.163	0.142	0.180	0.205	0.160	0.157

The table shows the results of linear regression models with tax aggressiveness as the dependent variable and the level of experience (*HIGH_EXP*) as the binary endogenous variable. In models (I) to (III), the dummy variable *HIGH_EXP* equals one if the subject works as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable *HIGH_EXP* equals one if the subject works at the accounting firm for more than 5, 10, and 15 years, respectively. *REP_LOSS* is a dummy variable which takes on the value of one if the subject is in the treatment group with reputation losses. FAC_E, FAC_N, FAC_O, FAC_A, and FAC_C denote the personality traits: Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness. Standard errors are given in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

VARIABLES	(I) EXP_MIN_5 YEARS	(II) EXP_MIN_1 0YEARS	(III) EXP_MIN_1 5YEARS	(IV) FIRM_MIN_ 5YEARS	(V) FIRM_MIN_ 10YEARS	(VI) FIRM_MIN_ 15YEARS
FAC_O	-0.318	-0.322	-0.847*	-0.389**	-0.393	-1.106*
	(0.199)	(0.238)	(0.441)	(0.197)	(0.273)	(0.568)
FAC_C	0.469**	0.389	0.415	0.190	0.280	0.292
	(0.208)	(0.241)	(0.403)	(0.197)	(0.272)	(0.476)
FAC_E	0.0288	0.0934	0.458	-0.196	0.224	0.351
	(0.196)	(0.241)	(0.455)	(0.194)	(0.286)	(0.533)
FAC_A	-0.341*	-0.176	0.591	-0.0965	0.0674	0.672
	(0.195)	(0.233)	(0.398)	(0.191)	(0.269)	(0.470)
FAC_N	-0.449**	-0.750***	-0.746*	-0.135	-0.542*	-0.288
	(0.204)	(0.262)	(0.433)	(0.196)	(0.289)	(0.471)
Constant	-0.206	-1.425***	-3.338***	-0.545***	-1.955***	-3.818***
	(0.193)	(0.253)	(0.586)	(0.193)	(0.297)	(0.741)
Observations	123	123	123	123	123	123

The table shows the results of logistic regression models with the level of experience (*HIGH_EXP*) as the dependent variable In models (I) to (III), the dummy variable *HIGH_EXP* equals one if the subject works as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable *HIGH_EXP* equals one if the subject works at the accounting firm for more than 5, 10, and 15 years, respectively. FAC_E, FAC_N, FAC_O, FAC_A, and FAC_C denote the personality traits: Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness. Standard errors are given in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

APPENDIX E: Treatment-effects models with general risk propensity as dependent variable

	Years as tax professional			Years at the accounting firm		
	>5 years	>10 years	>15 years	>5 years	>10 years	>15 years
VARIABLES	(I)	(II)	(III)	(IV)	(V)	(VI)
Regression equation: Risk Propensity						
REP_LOSS	-0.471	-0.451	-0.456	-0.469	-0.439	-0.467
	(0.303)	(0.311)	(0.299)	(0.307)	(0.309)	(0.310)
FAC_O	0.719***	0.576***	0.336*	0.427*	0.452**	0.480**
	(0.203)	(0.173)	(0.177)	(0.256)	(0.177)	(0.208)
FAC_C	-0.363*	-0.147	0.0376	-0.0253	-0.0179	-0.0551
	(0.213)	(0.186)	(0.166)	(0.182)	(0.167)	(0.160)
FAC_E	0.202	0.197	0.291*	0.166	0.246	0.224
	(0.195)	(0.159)	(0.165)	(0.186)	(0.159)	(0.155)
FAC_A	0.0109	-0.179	-0.0591	-0.227	-0.184	-0.174
	(0.205)	(0.161)	(0.171)	(0.161)	(0.155)	(0.182)
FAC_N	-0.500**	-0.651***	-0.939***	-0.813***	-0.873***	-0.795***
	(0.211)	(0.231)	(0.173)	(0.170)	(0.192)	(0.160)
HIGH_EXP	2.914***	1.169	-3.514***	-1.078	-1.454	-0.935
	(0.865)	(1.521)	(1.352)	(2.334)	(1.824)	(3.131)
Constant	3.064***	4.114***	4.640***	4.793***	4.587***	4.435***
	(0.480)	(0.433)	(0.245)	(0.891)	(0.333)	(0.257)
Selection equation: Experience						
FAC_O	-0.243**	-0.191	-0.387**	-0.245**	-0.269*	-0.487**
	(0.119)	(0.130)	(0.172)	(0.121)	(0.157)	(0.243)
FAC_C	0.309***	0.234*	0.297	0.125	0.169	0.136
	(0.116)	(0.135)	(0.183)	(0.126)	(0.152)	(0.231)
FAC_E	0.0490	0.0699	0.118	-0.116	0.139	0.160
	(0.116)	(0.137)	(0.195)	(0.119)	(0.157)	(0.256)
FAC_A	-0.219*	-0.0972	0.256	-0.0652	0.0358	0.267
	(0.114)	(0.133)	(0.182)	(0.120)	(0.148)	(0.223)
FAC_N	-0.294**	-0.469***	-0.345	-0.0799	-0.313*	-0.186
	(0.119)	(0.150)	(0.230)	(0.120)	(0.166)	(0.244)
Constant	-0.0930	-0.860***	-1.780***	-0.339***	-1.169***	-1.970***
	(0.118)	(0.145)	(0.239)	(0.118)	(0.161)	(0.292)

The table shows the results of the treatment-effects model with risk propensity as the dependent variable and the level of experience (*HIGH_EXP*) as the binary endogenous variable. Risk propensity is measured on a Likert scale ranging from zero (`not at all willing to take risks') to ten (`very willing to take risks'). In models (I) to (III), the dummy variable *HIGH_EXP* equals one if the subject works as a tax professional for more than 5, 10, and 15 years, respectively. In models (IV) to (VI), the dummy variable *HIGH_EXP* equals one if the subject works at the accounting firm for more than 5, 10, and 15 years, respectively. *REP_LOSS* is a dummy variable which takes on the value of one if the subject is in the treatment group with reputation losses. FAC_E, FAC_N, FAC_O, FAC_A, and FAC_C denote the personality traits: Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness. Wald tests indicate that the used covariates in the regression equations are appropriate (for all models: p<0.001).
The number of observations amounts to 123 in all six models. Standard errors are given in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Impressum:
Arbeitskreis Quantitative Steuerlehre, arqus, e.V.
Vorstand: Prof. Dr. Ralf Maiterth (Vorsitzender),
Prof. Dr. Kay Blaufus, Prof. Dr. Dr. Andreas Löffler
Sitz des Vereins: Berlin

Herausgeber: Kay Blaufus, Jochen Hundsdoerfer,
Martin Jacob, Dirk Kiesewetter, Rolf J. König,
Lutz Kruschwitz, Andreas Löffler, Ralf Maiterth,
Heiko Müller, Jens Müller, Rainer Niemann,
Deborah Schanz, Sebastian Schanz, Caren Sureth,
Corinna Treisch

Kontaktadresse:
Prof. Dr. Caren Sureth, Universität Paderborn,
Fakultät für Wirtschaftswissenschaften,
Warburger Str. 100, 33098 Paderborn,
www.arqus.info, Email: info@arqus.info

ISSN 1861-8944