COOPERATIVE COMPLIANCE, TAX CONTROL FRAMEWORKS AND PERCEIVED CERTAINTY ABOUT THE TAX POSITION IN LARGE ORGANISATIONS

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Abstract

In recent years, a growing number of tax authorities have shifted their strategies towards large organisations to include forms of so-called cooperative compliance programmes (OECD, 2013). These programmes require large organisations to have internal (or tax) control frameworks in place that assure that they can comply with their tax obligations and can also detect uncertain tax positions and disclose these to the tax authority. In exchange, the tax authority sees to it that tax matters are resolved quickly, quietly, fairly and with finality (OECD, 2007). Cooperative compliance programmes have therefore been characterised as "transparency in exchange for certainty" (OECD, 2013, p. 28).

In this paper, we discuss two studies which examine whether the need for certainty about tax matters is indeed an important driver behind large organisations developing and implementing tax control frameworks, and whether having a tax control framework of higher quality in place increases perceived certainty about the tax position. Both Study I (n=669) and Study II (n=271) use data from a (web) survey of representatives of large organisations in the Netherlands. The results show that the need for certainty and the importance attached to tax compliance have positive effects on the quality of an internal tax control framework. Moreover, both studies find the quality of a tax control framework has a positive effect on perceived certainty about the tax position. These positive associations indicate that large organisations' need for certainty about their tax positions stimulates them to improve their tax control frameworks in order to acquire such certainty.

Keywords: Tax compliance, Cooperative compliance, Tax certainty, Tax control framework

1. INTRODUCTION

In the last decade, a growing number of tax authorities have introduced voluntary disclosure programmes in addition to traditional enforcement regimes. Examples are the Risk Rating Approach in the UK (Freedman, Loomer, & Vella, 2009), the Compliance Assurance Process (CAP) in the U.S. (IRS, 2005) and the Horizontal Monitoring Program in the Netherlands (Happé, 2008). These so-called cooperative compliance programmes are open to large organisations that are willing to meet requirements of disclosure and transparency. Under a cooperative compliance programme, the tax authority sees to it that tax matters are resolved "quickly, quietly, fairly and with finality" (OECD, 2007, p.6). This quick resolution of issues

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is meant to provide an organisation with certainty about its tax position. Cooperative compliance programmes have therefore been characterised as "*transparency in exchange for certainty*" (OECD, 2013, p. 28).

Cooperative compliance programmes anticipate that taxpayers are willing to provide transparency and disclosure when this will result in increased certainty about their tax positions (OECD, 2008). The need for certainty and the willingness to comply are assumed to form the rationale for taxpayers to improve their internal control frameworks. Such an internal control framework regarding tax is called a Tax Control Framework (TCF). A TCF assures that large organisations can comply with their tax obligations and can detect uncertain tax positions and disclose these to the tax authority (OECD, 2013).

Large taxpayers themselves name the increase in certainty as one of the most important advantages of participating in a cooperative compliance programme (OECD, 2009). However, the extent to which large organisations are willing to invest in improving their TCFs in order to reduce uncertainty and increase compliance has remained largely unexplored. Beck and Lisowsky (2014) found that the likelihood of an organisation participating in a cooperative compliance programme (i.e. the CAP) is positively associated with tax uncertainty and negatively associated with tax aggressiveness. This suggests that the need for certainty and willingness to comply are drivers for participating in the CAP. Furthermore, Beck and Lisowsky (2014) found that CAP participation reduces reported uncertain tax positions (in the form of FIN 48 reserves), which implies that participation in the CAP enables large organisations to reduce tax uncertainty. This study did not explicitly address TCFs, so it provides only indirect evidence for the assumed role of a TCF.

Given the increasing importance of cooperative compliance programmes as part of the overall strategies of tax authorities, it is important to assess the validity of the underlying assumptions of these programmes. To date, it is unclear whether the need for certainty and the willingness to be compliant stimulate large organisations to improve their TCFs and, subsequently, whether these improvements in TCFs reduce uncertainty and increase tax compliance. This paper examines whether large organisations' willingness to comply and need for certainty about tax matters are indeed related to the quality and functionality of their TCFs. More specifically, we focus on their need for certainty about their tax positions and their attitudes towards tax compliance as drivers for increasing the quality of their TCFs. Furthermore, we examine whether having a better functioning and higher quality TCF in place increases an organisation's perceived certainty about its tax position.

We tested our hypotheses in two studies. Both studies used survey data and were generally similar in terms of the methodology being used and the analyses being conducted. While Study 1 generally confirmed the main hypotheses, it had some methodological issues. For example, the questions posed within the study were answered by two representatives of each organisation. Furthermore, the sample used for this study included both medium-sized and large organisations. Cooperative compliance programmes and the emphasis on the role of the TCF are considered important for large organisations and less so for medium-sized organisations. In the analyses, we controlled for differences in the sizes of the organisations, but organisations that (at the time) were designated very large by the Netherlands Tax and Customs Administration (NTCA) were not included in the Study 1 sample. Study 2, which replicated Study 1 while remedying some of its shortcomings, is presented for these reasons.

The remainder of this paper is structured as follows: section 2 provides a general theoretical background of cooperative compliance programmes, tax uncertainty and internal control, and presents the hypotheses. In sections 3 and 4, the methods, measurement and results of the two studies are described. The final section (section 5) presents and discusses the conclusions.

2. THEORETICAL BACKGROUND AND DEVELOPMENT OF THE HYPOTHESES

Cooperative compliance programmes

Cooperative compliance programmes emerged in the search for alternative and effective ways by which to improve taxpayers' compliance behaviour and the risk management strategies of tax authorities. The Organisation for Economic Co-operation and Development (OECD) is a strong supporter of cooperative compliance programmes and has been a driving force behind the international development of these programmes (Colon & Swagerman, 2015). In 2008, the OECD's Forum on Tax Administration (FTA) published the "Study into the Role of Tax Intermediaries" (OECD, 2008). This study focussed on innovative ways by which to address and reduce aggressive tax planning by large organisations and their tax advisors. The OECD suggested that there is significant scope for influencing large organisations and their demand for aggressive tax planning schemes by enhancing the relationship between taxpayers, tax advisors and tax authorities, using trust and cooperation as the organising principles of these relationships.

The tax authorities of South Africa (Taxpayers Engagement Strategy), Ireland (Cooperative Approach), the Netherlands (Horizontal Monitoring), USA (CAP), the UK (Risk Rating Approach), and Australia (Forward Compliance Arrangement) were early adopters of cooperative compliance programmes (see Holmes (2010) and Nolan & Ng (2011) for more information about these programmes). A recent survey of 24 member countries of the FTA's large business network showed that they had all developed and/or implemented cooperative compliance programmes (OECD, 2013).

Ford and Condon (2011) describe approaches such as cooperative compliance as "new governance". They observe that there is agreement in the literature on several elements central to new regulatory approaches, namely: 1) a more collaborative relationship between the State and regulated entities based on the recognition that regulation may operate most effectively when it incorporates private actors' context-specific experiences and relevant expertise; 2) giving regulated entities greater autonomy to design their own internal processes to meet broadly defined outcomes; and 3) a focus on developing regulatory strategies that place responsibility on organisations for their own compliance and that try to foster compliance-supporting internal motivations. New governance can be seen as a broad shift in regulatory preference from ex post discovery of norm violation to ex ante anticipation and to prevention and self-discovery via internal systems of compliance (Power, 2007). The more traditional deterrence model thus becomes embedded in a compliance strategy which increasingly relies on cooperation and self-regulation. Cooperative compliance programmes also fit in with the broader literature on tax compliance, in which it is recognised that the relationship between tax authority and taxpayer is not adversarial per se, and that trust and cooperation can increase voluntary compliance (e.g., Braithwaite, 2003; Braithwaite, Murphy, & Reinhart, 2007; Kirchler, Kogler, & Muehlbacher, 2014; Ventry, 2008).

Internal control and compliance

Reliance on internal control frameworks is an important characteristic of new regulatory strategies such as cooperative compliance programmes. In line with this, in 2013, the OECD introduced the concept of the TCF and highlighted the central importance of these frameworks for the concept of cooperative compliance. The OECD suggested that an essential component of cooperative compliance is the existence of an internal control system that is robust enough to give the tax authority assurance that all relevant tax risks can be disclosed in a timely manner, and that tax returns are submitted on time and are complete and correct. Accordingly, taxpayers joining a cooperative compliance programme have to be committed to improving the quality of their TCFs.

Due to several major corporate failures and bookkeeping scandals, the beginning of 21st century saw the introduction of strict corporate governance laws and regulations all over the world (Wunder, 2009). Most corporate governance regulation refers to the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) Internal Control Framework as a good practice for internal control. COSO (2004, p. 4) defines internal control as: "*a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations; reliability of financial reporting; compliance with applicable laws and regulations*". COSO (2004; 2013) distinguishes five components or steps of internal control: 1) define the objectives of the business process; 2) apply a risk assessment to the process (to define the risks that could occur and would probably endanger the achievement of the objectives of the process); 3) determine how to respond to these risks by implementing control activities; 4) communicate the information necessary for employees to run and control the organisation, and; 5) evaluate and monitor the effectiveness of internal control. These five components define the internal control structure of an organisation. The structure and the effectiveness of the internal control system will vary according to, and depending upon, the specific characteristics of the organisation (Jokipii, 2010).

COSO states that internal control systems provide reasonable assurance regarding the achievement of an organisation's objectives, including compliance with applicable laws and regulations. Scholars advocating new governance approaches (e.g. Bennear, 2007) assume that it ought to be possible to identify internal control systems that can effectively prevent misconduct in corporations and to design regulatory programmes that secure organisations to self-regulate by putting these internal control systems in place. However, whether these expectations will be realised in practice – and, if so, to what extent – is unclear (Gunningham & Sinclair, 2009). There are various reasons why internal control systems might *not* achieve policy purposes such as compliance: organisations might use their internal control just as window dressing; the improvement of internal control might be used to manage risk and as grounds for negotiation with the regulator when non-compliance is detected; there can be differences in risk appetite between the regulator and regulatee; and achieving compliance might be too difficult and resource-intensive for a corporation (Parker & Gilad, 2011). Power (2007) underlines that internal control systems are designed and implemented with the objective of facilitating core business processes in an organisation, not to achieve objectives such as compliance with rules and regulations. Similarly, Huisman and Beukelman (2007) review the literature on corporate compliance and conclude that there is little empirical substantiation for the expectations regarding regulatory approaches that rely on internal control systems to achieve desired levels of compliance. With specific regard to tax, the role of internal control, as opposed to external control, in facilitating compliance has not been studied enough (Bauer, 2009).

In the present study, we explore the assumptions about internal control systems from the perspective of large organisations. More specifically, we study why large organisations in the Netherlands will invest in the quality of their TCFs. We focus on organisations' need for certainty about their tax positions and their attitudes with regard to tax compliance as drivers for increasing the quality of their TCFs. That large organisations are willing and able to improve their TCFs in order to increase certainty and compliance is an important assumption underlying cooperative compliance programmes. For this reason, in this study, we focus on these two (potential) determinants of the quality of a TCF.

We assume that large organisations – like other segments of taxpayers – differ in their attitudes towards paying taxes. Some organisations aim to minimise the amount of tax to be paid, while others focus on minimising the risk of having to pay more tax at a later point in time because of a lost dispute (Wunder, 2009). We expect that the extent to which organisations strive for tax certainty determines which of these goals they choose (Freedman, Loomer, & Vella, 2009). The need for certainty about their tax positions could lead organisations to adopt conservative or non-aggressive tax policies in order to prevent disputes with the tax authority. However, tax law is often ambiguous, which makes it onerous to discover whether tax authorities will accept a certain position in advance (McBarnet, 2003). In those cases, certainty can only be realised when the tax authority takes a formal stand. This line of reasoning has been corroborated by studies that explored the relationships between tax aggressiveness, tax uncertainty and participation in voluntary disclosure regimes. Studies by Beck, Davis, and Jung (2000) and De Simone, Sansing, and Seidman (2013) showed that firms that are less tax aggressive and face high levels of tax uncertainty have strong incentives to participate in voluntary disclosure regimes. Beck and Lisowsky (2014) found the same results regarding participation in a cooperative compliance programme; participation in such a programme is more likely when a firm faces high levels of tax uncertainty and scores low on tax aggressiveness.

To be able to disclose all relevant information and to receive certainty from the tax authority, a taxpayer needs to be in control of all processes, because tax issues can arise from a variety of business transactions. Therefore, a taxpayer in need of certainty – and thus striving to minimise the risks of unexpected tax payments in the future – can be expected to invest in its TCF (Gallemore & Labro, 2015). However, large organisations can have other motives for improving their TCFs, such as improving tax compliance. Improving tax compliance can relate to certainty as well – more compliance reduces uncertainty – but reputational concerns can also play a role. Having a TCF could also be perceived as a request or demand from the tax authority, especially within the context of a cooperative compliance programme. Implementing a TCF then becomes a form of compliance or a way to gain trust (and less audit activity) from the tax authority (Parker & Gilad, 2011).

In this paper, we will investigate whether stronger needs for certainty and compliance indeed stimulate large organisations to improve the functioning and quality of their TCFs.

Hypothesis 1: A stronger need for certainty about the tax position is positively associated with a better functioning and higher quality TCF.

Hypothesis 2: More importance attached to tax compliance is positively associated with a better functioning and higher quality TCF.

Tax uncertainty

The NTCA's Horizontal Monitoring (HM) programme is an example of a cooperative compliance programme. It explicitly focusses on improving the NTCA's relationship with corporate taxpayers. HM is based on three key values: mutual trust, understanding and transparency (NTCA, 2013). These key values are similar to the features the OECD (2008) describes as being necessary in order to move away from the "basic relationship" and they are meant to improve the working relationship between the NTCA and large organisations. There is a strong emphasis on consultation (also referred to as "preliminary consultation") within the HM programme. If a taxpayer and the NTCA disagree about the interpretation of certain tax issues, this could lead to uncertainty regarding these tax issues. Within the HM programme, taxpayers are expected to disclose all tax issues where there is the potential for differences in interpretation between them and the NTCA. In response, the NTCA states its perception of the legal consequences and thus provides certainty. The purpose of this (preliminary) consultation is to provide the organisation (and the NTCA) with more certainty about its tax position (NTCA, 2013).

Tax (un)certainty is an important economic factor for large businesses, affecting, for example, investment decisions (Devereux, 2016). In recent years, large businesses experienced an increase in tax uncertainty (IMF & OECD, 2017). This tax uncertainty can make large organisations reticent with regard to their economic behaviour and, thus, can negatively affect investment and trade within and between countries, and decrease economic growth. With regard to individual large businesses, tax uncertainty results from tax positions where the amount of tax that they will need to pay in future is unclear and, as such, tax uncertainty is an economic risk for such businesses (Jacob, Wentland, & Wentland, 2016). Reducing tax uncertainty is therefore an important goal for large businesses (OECD, 2009). The effects of tax (un)certainty have been included in theoretical models on tax compliance amongst individuals, starting with Friedland (1982), Reinganum and Wilde (1988), Scotchmer (1989), Scotchmer and Slemrod (1989) and Beck and Jung (1989a&b). In these models, tax uncertainty arises primarily from uncertainty about the probability of a tax audit taking place. Some studies add additional sources of tax uncertainty, such as detection probability (the probability that, given that a tax audit takes place, the tax authority will detect a tax position that it does not accept) and uncertainty about the correct interpretation of tax law (e.g. Beck & Jung, 1989b). Later on, such theoretical models also focussed on large organisations (e.g. Mills & Sansing, 2000). Beck, Davis, and Jung (2000) added to these theoretic models by allowing for the possibility of voluntary disclosure of uncertain tax positions by taxpayers. Subsequently, De Simone, Sansing, and Seidman (2013) expanded upon Beck, Davis, and Jung's model by introducing the perspective of a cooperative compliance programme (they used the term "enhanced relationship") within which voluntary disclosure can take place. These studies assume that when tax uncertainty is reported (through contingent liabilities, unrecognised tax benefits or book-tax differences), the tax authorities are more likely to respond with an audit, leading to audit costs for the taxpayer. However, there are ways by which taxpayers can lower these economic risks and increase their tax certainty; for example, through participation in a cooperative compliance programme. Within such a programme, taxpayers are less likely to claim risky tax positions and the tax authority is less likely to challenge strong tax positions, lowering taxpayer compliance costs and tax authorities' audit costs (De Simone, Sansing, & Seidman, 2013).

All these studies presume that taxpayers strive to minimise paying taxes and tax compliance costs and that a taxpayer will voluntary disclose when he is expecting to benefit. A taxpayer benefits when the gains from uncertain tax benefits outweigh the costs based on audit probabilities, possible audit adjustments and penalties. Therefore, the willingness of taxpayers to "voluntarily" disclose is to a large degree, within this context, dependent on the enforcement activities of the tax authority. Our study relates to this in that we expect participation in a cooperative compliance programme to affect perceived uncertainty. However, our study differs from previous research because we do not expect the decision to voluntarily disclose uncertain tax positions – and/or to participate in a cooperative compliance programme – to be a straightforward cost-benefit analysis. Large organisations can have other concerns that make uncertainty about the tax position undesirable or even detrimental, such as worries about the predictability of financial limits for investments, apprehension about tax issues leading to reputational damage, a focus on yearly budgets or a need for a definitive financial year-end appropriation of profits etc. As a result of these various concerns, large organisations can have different tax certainty needs.

Our study aims to complement and extend the literature on the effects of uncertainty on tax compliance. The existing studies focus on a cost-benefit analysis of uncertainty by using a game-theoretic approach to calculate when the gains from uncertain tax benefits outweigh the costs stemming from possible audits, audit adjustments and penalties (e.g. De Simone, Sansing, & Seidman, 2013). In such an approach, the degree of tax uncertainty is a determinant of tax compliance. An exception to this is a study by Lavermicocca and McKerchar (2013), who conclude that large organisations that improve their tax risk management face lower tax uncertainty. We take this approach and do not view tax uncertainty as a given, but as an outcome that can – at least partially – be influenced by the taxpayer, for example, through participating in a cooperative compliance programme and/ or improving the quality of the TCF. As such, we allow tax uncertainty to be – at least partially – a result of (intended) tax compliance, rather than a determinant of tax compliance.

As discussed, a TCF is a key element of cooperative compliance programmes. The assumption is that having a TCF in place enables large organisations to be in control of their tax risks and this, to a large extent, guarantees that they (can) comply with tax obligations. Furthermore, a TCF permits large organisations to seek certainty regarding tax issues from the tax authorities, because having a well-functioning TCF makes it possible to disclose all relevant tax risks to the tax authority. As a result, a TCF contributes to large organisations' perceived certainty about their tax positions. Our third hypothesis concerns this last assumption:

Hypothesis 3: A better functioning and higher quality TCF is positively associated with the perceived level of certainty about the tax position.

Control variables

The need for internal control and the characteristics of effective internal control can vary according to a firm's characteristics, such as its size and organisational structure (COSO, 2006a&b; Jokipii, 2010). Therefore, in our analyses, we control for a number of key characteristics of the large organisations in our study, namely number of employees, turnover and whether the organisation is a multinational enterprise. Although potentially relevant, we did not include industry as a control variable because of the limited number of observations in some industries. Because industry correlates with the size of the organisation and with it being a multinational, at least some of the possible differences between industries are automatically controlled for. We do not control for (recent) experiences with the tax authority, such as having been in contact with someone from a tax office or being audited. Experiences such as an audit can have a negative or a positive impact on subsequent tax compliance, depending on certain preconditions (Gemmell & Ratto, 2012). Therefore, the experience itself is not very informative as a control variable. Experiences with the tax authority translate into, or will be reflected in, a taxpayer's attitudes and motivation and will, in our study, be incorporated in the importance attached to compliance and the need for certainty.

3. STUDY I

Method

Participants and sample

Study 1 is based on a survey that was carried out by a research agency on behalf of the NTCA in 2011. A sample of 3,025 large organisations was drawn from the population of large organisations as defined by the NTCA. In 2011, the NTCA distinguished three segments of organisations based on their (increasing) tax liabilities: SMEs (approximately 1.5 million businesses, including self-employed individuals), large organisations (approximately 10,000) and very large organisations (around 1,300). Internal (tax) control only becomes a process as described in the definition of internal control by COSO (1992) in organisations of a certain size.

The segment *large organisations* consisted of profit and not-for-profit organisations in the Netherlands with tax liabilities of between 2 and 25 million euros. Approximately 10% of the Netherlands' total yearly tax proceeds originates from this segment (Stevens, Pheijffer, Van den Broek, Keijzer, & Van der Hel-Van Dijk, 2012). The sample was stratified to include equal numbers of organisations from the 13 regions of the country distinguished by the NTCA.

Procedure and response

A printed questionnaire was sent to the address of the board of each organisation. An accompanying letter explained that the NTCA commissioned the research project in order to learn about the experiences and opinions of organisations with regard to the process of taxation and the NTCA, and that responses were anonymous. The letter stated that there were questions for both the member of the board responsible for financial and fiscal affairs – usually the owner or financial director (hereafter "the board member") – and for the person in the organisation who was responsible for the contacts with the NTCA – usually the CFO or controller (hereafter "the contact person").

There were two ways in which the organisation could participate. The board member could choose to fill out his or her part of the questionnaire and hand it over to the subordinate contact person to fill out the second part, then return it by regular mail to the research agency. Alternatively, both respondents could log in to a secure internet server in order to answer the questions online. Separate website links and passwords for each official were provided in the accompanying letter.

Responses were received from 895 organisations. In 54 cases, we received information stating that the organisation no longer existed due to, for example, bankruptcy or a merger. Taking that into account, the response rate for the study was 30% (895/(3,025-54)). Of the organisations that responded, 63% used the online survey, while the others used the printed questionnaire.

Both parts of the questionnaire were not answered in all cases. 715 organisations submitted responses from both a board member and a contact person. Data about some variables was also missing because either no answer was provided or the option "I don't know" was ticked. The results presented here are based on the 669 responses which included complete data on all the variables relevant for the present study. While the sample was stratified, the data used was weighted back to the proportions of the population in order to make the results representative.

Characteristics of the respondents and the organisations

The board members were mostly male (89%) and had a mean age of 49 years. The contact persons were slightly younger (M = 46 years) and 81% of them were male. The number of employees varied between fewer than 10 to more than 1,000, and approximately half of the organisations had fewer than 100 employees in the Netherlands. Almost 60% of the organisations had turnovers (excluding VAT) of between 11 million and 100 million euros for 2010. For 11% of the organisations, turnover exceeded 100 million euros. One in four organisations was a multinational, with a mother company or branches abroad.

Questionnaire and measures

Due to the aim of the larger research project, the questionnaire was comprised of more than 60 questions and statements covering a broad range of topics (e.g. experience with and appreciation of services and support provided by the NTCA, familiarity and contacts with the tax officials, ease or difficulty of fulfilling fiscal obligations etc. We will only describe the measures relevant for the present study here. See Table 1 for the wording of all items.

All variables used in the present study were measured in the group of board members, except for the dependent variable, for which the items were scored by the contact person. Answers for all items ranged from (1) completely disagree to (5) completely agree, except for those regarding the importance of tax compliance, where answers ranged from (1) very unimportant to (5) very important. Scales were constructed based on the unweighted means of the items.

Need for certainty was assessed by four items and Cronbach's alpha for the scale is .68. The *importance of tax compliance* was measured by three items based on the three compliance indicators developed by Slemrod, Blumenthal, and Christian (2001). Cronbach's alpha for the scale was .84. This scale was previously used by Gangl, Muehlbacher, de Groot, Goslinga, Hofmann, Kogler, Antonides, & Kirchler (2013). In Study 1, two aspects of internal (tax) control were measured: *control effort* and *control quality*. *Control effort* was assessed by two items and the Cronbach's alpha for the scale was .81, Spearman's rho was .70 ($p < .001$). *Control quality* was also measured by two items and Cronbach's alpha for the scale was .74, Spearman's rho was .58 ($p < .001$). Finally, *perceived certainty about the tax position* was assessed by four items and the Cronbach's alpha was .83.

Table 1. Descriptive statistics and reliability estimates of Study 1 (n=669) a

Variable	Item wording b	M	SD	FL
Need for Certainty	It would harm the reputation of the organisation if tax obligations were not dealt with in the correct way.	1.71	0.70	.54
CR=0.81	It is of great importance for the organisation to know in advance what the tax consequences are of activities, purchases and investments.	1.78	0.59	.83
EV=2.06	Uncertainty about the tax position constitutes a direct risk for the organisation.	2.38	0.99	.69
AVE=0.52	It is of great importance for the organisation to have a grip on all fiscal matters.	1.68	0.53	.78
Importance of Tax Compliance	*How important do you think it is that the tax office…*			
CR=0.90	…receives tax returns from your organisation on time?	4.02	0.71	.89
EV=2.28	…receives complete and correct tax returns from your organisation?	4.27	0.68	.85
AVE=0.76	…receives timely payments from your organisation?	3.98	0.76	.87
Control Effort				
CR=0.92	The internal control of the organisation takes a lot of time and effort.	2.24	0.66	.92
EV=1.69	The tax control of the organisation takes a lot of time and effort.	2.36	0.68	.92
AVE=0.84				
Control Quality				
CR=0.88	The organisations' internal control is well-organised.	1.92	0.54	.89
EV=1.59	The organisations' tax control is well-organised.	2.02	0.54	.89
AVE=0.79				
Perceived Certainty				
CR=0.89	My organisation feels certain about tax returns that are filed.	1.79	0.52	.77
EV=2.65	My organisation receives sufficient certainty from the tax authorities regarding its tax position.	2.34	0.70	.74
AVE=0.66	The handling of tax returns provides no surprises for my organisation.	1.89	0.61	.88
	My organisation knows where it stands with regard to fiscal matters.	2.03	0.65	.86

a All items were measured on a five-point scale (1=very unimportant, 5=very important for the importance of tax compliance items and 1=completely disagree, 5=completely agree for all other items)

b All translations from Dutch by authors

CR=Composite Reliability, EV=Eigenvalue, AVE=Average Variance Extracted, M=Mean, SD=Standard Deviation, FL=Factor Loading

Results

Table 2 provides the means, standard deviations and correlations of the variables used in Study 1.

Table 2. Means, standard deviations and intercorrelations of the variables in Study 1 (n=669)[5]

	M	SD	1	2	3	4	5	6	7
1. Multinational (no/yes)	1.76	0.43							
2. Number of employees	3.21	1.60	-.07						
3. Turnover	4.01	1.28	.13**	.62***					
4. Need for certainty	4.11	0.50	.04	.03	.03				
5. Importance of tax compliance	4.09	0.62	.02	.05	.10*	.14***			
6. Control effort	3.70	0.62	.06	.08	.12**	.29***	-.01		
7. Control quality	4.03	0.48	.07	-.06	-.03	.25***	.19***	.17***	
8. Perceived level of certainty	3.97	0.50	-.03	.00	-.01	.06	.18***	-.03	.32***

** p < .05; ** p < .01; *** p < .001*

Turnover was significantly associated with the number of employees and with whether the organisation was a multinational. When the number of employees was higher, turnover was higher ($r = .62$, $p < .001$) and multinationals had a somewhat higher turnover ($r = .13$, $p < .01$) but did not differ in the number of employees. Turnover was also associated with the importance of tax compliance and control effort. When turnover was higher, greater importance was attached to tax compliance ($r = .10$, $p < .05$) and more effort was put into internal and tax control ($r = .12$, $p < .01$).

The need for certainty about the tax position correlated significantly and positively with the importance of tax compliance ($r = 14$, $p < .001$), with the effort put into the internal and tax control ($r = .29$, $p < .001$) and with the quality of the internal and tax control ($r = .25$, $p < .001$). The quality of the internal and tax control was also positively associated with the importance of tax compliance ($r = .19$, $p < .001$) and with control effort ($r = .17$, $p < .001$).

The need for certainty did not correlate significantly with perceived certainty about the tax position ($r = .06$, ns). The perceived certainty about the tax position correlated significantly with the importance of tax compliance ($r = .18$, $p < .001$) and the quality of the internal and tax control ($r = .32$, $p < .001$).

Explaining the quality of the TCF

To test the first two hypotheses, we conducted two regression analyses with the two aspects of internal (tax) control – control effort and control quality – as dependent variables. In both analyses, the independent variables were entered in two steps. First, only the background characteristics of the organisation were included, so that they could function as control variables in the next step. In the second step, we added the need for certainty about the tax position and the importance attached to tax compliance to the regression equations. The results are displayed in Table 3.

[5] *Turnover* was measured on a six-point scale with 1= ≤ €1 million, 2=> €1 million and ≤ €5 million, 3= > €5 million and ≤ €10 million, 4= > €10 million and ≤ €25 million, 5= > €25 million and ≤ €210 million and 6= > €100 million.
Number of employees was measured on an eight-point scale with 1= ≤ 10, 2= > 10 and ≤ 25, 3= > 25 and ≤ 50, 4= > 50 and ≤ 100, 5= > 100 and ≤ 200, 6= > 200 and ≤ 500, 7= > 500 and ≤ 1000, 8= > 1000.

Table 3. Results of regression analyses of Study 1 explaining the quality of the TCF (n=669)

Panel a: Control effort

	B	SE	Beta	B	SE	Beta
Multinational (no/yes)	.07	.06	.05	.05	.06	.03
Number of employees	.01	.02	.03	.01	.02	.02
Turnover	.05	.02	.09	.05*	.02	.10*
Need for certainty				.36***	.05	.29***
Importance of tax compliance				-.06	.04	-.06
F		3.54*			14.53***	
d.f.		3,665			5,663	
R^2 (adj. R^2)		.02 (.01)			.10 (.09)	

** p < .05; ** p < .01; *** p < .001*

Panel b: Control quality

	B	SE	Beta	B	SE	Beta
Multinational (no/yes)	.08	.05	.07	.07	.04	.06
Number of employees	-.01	.01	-.05	-.01	.01	-.05
Turnover	-.01	.02	-.02	-.01	.02	-.03
Need for certainty				.22***	.04	.23***
Importance of tax compliance				.13***	.03	.17***
F		1.87			14.64***	
d.f.		3,665			5,663	
R^2 (adj. R^2)		.01 (.00)			.10 (.09)	

** p < .05; ** p < .01; *** p < .001*
B=Unstandardised Regression Weight, SE=Standard Error, Beta=Standardised Regression Weight

In the first step, none of the background characteristics had significant regression weights in either of the regression models. Adding the need for certainty and the importance attached to compliance improved both models. A higher need for certainty significantly affected both control effort ($\beta = .29$, $p < .001$) and control quality ($\beta = .23$, $p < .001$). In the second step, control effort was also predicted by turnover, where a higher turnover predicted more control effort. The importance of tax compliance did not affect control effort but was a significant predictor of control quality. As expected, more importance being attached to tax compliance ($\beta = .17$, $p < .001$) predicted higher control quality. The complete models explained 9% of the differences in both control effort and control quality.

Explaining perceived certainty

We conducted linear regression analysis with the perceived certainty about the tax position as a dependent variable to test Hypothesis 3 (Table4). The independent variables were entered in three steps. First, we entered the characteristics of the organisations (number of employees, turnover, and multinational or not) as control variables in the regression equation, resulting in a non-significant model and no significant Beta weights. In the second step, we added the need for certainty and the importance of compliance to the equation. The resulting model was significant ($F(5,663) = 5.07$, $p < .001$) and explained 3% of the differences in the perceived certainty about the tax position. The only significant predictor in the model was the importance of tax compliance ($\beta = .18$, $p < .001$). In the third step, control effort and control quality were also included. The results showed a significant effect for the quality of the internal (tax) control ($\beta = .32$, $p < .001$). The complete model explained 12% of the variance in control quality.

Table 4. Results of regression analyses of Study 1 explaining the perceived level of certainty about the tax position (standardised regression weights, n=669)

	B	SE	Beta	B	SE	Beta	B	SD	Beta
Multinational (no/yes)	-.04	.05	-.03	-.04	.05	-.04	-.06	.04	-.05
Number of employees	.00	.01	.00	.00	.01	.00	.01	.01	.02
Turnover	-.00	.02	-.01	-.01	.02	-.03	-.00	.02	-.01
Need for certainty				.04	.04	.04	-.02	.04	-.02
Importance of tax compliance				.15***	.03	.18***	.10**	.03	.12**
Control effort							-.06	.03	-.07
Control quality							.33	.04	.32***
F		0.27			5.07***			13.85***	
d.f.		3,665			5,663			7,661	
R^2 (adj. R^2)		.00 (.00)			.04 (.03)			.13 (.12)	

** p < .05; ** p < .01; *** p < .001*

To test whether the quality of the internal (tax) control mediated the effect of the importance of tax compliance on the perceived certainty about the tax position, we conducted a set of regression analyses using coefficients from 10,000 bootstrap samples (Hayes, Preacher, & Myers, 2011). The results showed that the 95% confidence interval for the indirect effect of the quality of control did not contain zero [.03, .08]. More specifically, adding the control quality as a mediator decreased the effect of the importance of compliance on the perceived certainty about the tax position (from $\beta = .18$, $p < .001$ to $\beta = .12$, $p < .01$).

In conclusion, the results generally confirmed the hypotheses. However, of the two measures used for aspects of internal tax control, only control quality had an effect on the perceived level of certainty and mediated the relationship between the need for certainty and the importance of compliance and the perceived level of certainty. We did not find these effects in respect of control effort. This might be due to the operationalisation of control effort. Higher scores on control effort could indicate that an organisation takes internal control more seriously. However, it might also indicate that the organisation is inefficient in achieving control, which might explain the somewhat low correlation between control effort and control quality. Therefore, we conducted a second study in which a more elaborate measure for internal tax control was used.

4. STUDY II

Method

Participants and sample

The data was collected in 2014 through a survey among representatives of large organisations in the Netherlands. The survey was carried out as part of larger research NTCA project aiming to shed light on the relationship between NTCA's regulatory strategy for large organisations and their tax compliance. A research agency was commissioned to carry out the fieldwork.

The population of large organisations comprised the 8,558 largest organisations in the Netherlands at the time of the study (2014).[6] The 81 largest organisations were excluded from the research population, because they receive a somewhat different regulatory treatment from the NTCA. A sample of 350 organisations was drawn from those that remained and these were invited to participate in the survey. For reasons relating to the objectives of the NTCA's research project, the sample was stratified to include larger proportions of organisations participating in the Horizontal Monitoring (HM) programme and organisations that had only recently met the criteria to qualify as large. The sample consisted of: 95 large organisations that were participating in HM; 180 that were not participating in HM; and 75 that had only qualified as large organisations since the end of 2013 (none of which were participating in HM). In our analyses, we do not differentiate between large businesses that do and that do not participate in HM and between large businesses that are in different stages of participation. Formal participation, in the form of a covenant, is often a confirmation of an already established cooperative relationship. It is, therefore, possible that large businesses that do not (yet) participate in CCPs do not differ from large businesses that do participate in them. It is also possible that large businesses that participate in CCPs do not (yet) live up to the expectations. Because of the stratification, the data was weighted so that the proportions of the three strata were representative of the population.

Procedure and response

The survey was meant for the most senior official within each large organisation who was responsible for fiscal decisions and maintaining contact with the NTCA. Usually, this was the CFO, controller or tax director (hereafter "the contact person"). The designated teams within the NTCA responsible for the treatment of large organisations knew, and had regular contact with, these contact persons. The contact persons received telephone calls from their account managers within the NTCA and official letters from the organisation to inform them about the research project and the survey. Subsequently, the research agency sent each contact person an email with a link to the web-based survey and a request to participate. The survey was anonymous to ensure the NTCA did not know who had responded and who had not. This was also made clear to the organisations.

The survey closed approximately a month after the first invitation was sent. 271 of the 350 large organisations completed it; a response rate of 77%. The respondents were mostly male (84%) and their mean age was 48 years. The number of employees working for each organisation in the Netherlands varied from fewer than 50 to more than 2000, with approximately half of the organisations having fewer than 200 employees. Fewer than 10% of the organisations had turnovers (excluding VAT) of more than 200 billion euros for 2013 and approximately half of them had turnovers of between 10 million and 75 million euros that year. One third of the organisations had branches or establishments abroad. In this study, these are labelled multinationals.

Questionnaire and measures

Due to the aim of the larger research project, the questionnaire comprised more than 150 question and statements, covering a broad range of topics (e.g. service provision by the NTCA, distributive justice, procedural justice etc. We will only describe the measures relevant for the

[6] The NTCA distinguishes large organisations from other taxpayers based on the following criteria: a) turnover exceeds ten million euros and gross wages exceed two million euros; or b) gross wages exceed eight million euros; or c) assets exceed one billion euros.

present study here. Scales were constructed based on the unweighted means of the items. See Table 4 for the wording of all items.

Need for certainty was assessed by a single item. The *importance of tax compliance* was measured using the same three items used in Study 1. Cronbach's alpha for this scale was .91. To our knowledge, no comprehensive list of items for measuring internal tax control has been proposed in the literature. For purpose of this study, measures for the different formal aspects of the TCF were derived from the process of internal control as proposed by COSO (1992). The COSO framework is considered to be the "gold standard" of internal control and is well-known (Wunder, 2009). In order to develop a measure, we drew from a study by Heeren-Bogers, Kaptein, and Soeters (2013), who developed measures for internal control in the Dutch Ministry of Defence. We adjusted these measures to better fit the tax context of our study. Our measure for the *quality of the TCF* consists of 23 items. To our knowledge, this study is the first to use such a comprehensive list of items when measuring internal tax control. We expected the 23 items to reflect the five different aspects of internal control as described by COSO (1992). However, factor analysis yielded a four-factor solution. The four factors were strongly intercorrelated and did not congruently reflect the five aspects of an internal control framework as described by COSO. For this reason, we decided to compute the final TCF measure as an average of all items save one because of a low factor loading.[7] The remaining 22 items formed a reliable scale with a Cronbach's alpha of .93.

Perceived certainty about the tax position was measured by four items and the Cronbach's alpha was .88.

[7] The item we dropped was: "In my organisation, internal control monitoring is performed by an external expert (e.g. a tax advisor)".

Table 5. Descriptive statistics and reliability estimates of Study 2 (n=271, weighted 269) a

Variable	Item wording b	M	SD	FL
Need for Certainty	It is of great importance for my organisation to get certainty about the tax position from the tax authority.	5.81	1.06	-
Importance of Tax Compliance	*How important do you think it is that the tax office…*			
CR=.91	…receives your organisation's tax returns on time?	6.26	1.04	.91
EV= 2.53	…receives complete and correct tax returns from your organisation?	6.48	0.85	.92
AVE= .77	…receives timely payments from your organisation?	6.34	1.00	.92
TCF	*In my organisation…*			
CR=.93	…the fiscal strategy is clear.	5.49	1.26	.60
EV=8.92	…the fiscal targets are clear.	5.14	1.38	.69
AVE=.38	…the fiscal targets are realistic.	5.17	1.33	.65
	…the fiscal strategy contributes to compliance with tax laws and regulations.	5.26	1.61	.67
	…unambiguous fiscal targets are derived from the fiscal strategy.	4.29	1.64	.63
	…fiscal risks are identified.	5.26	1.31	.58
	…the identification of fiscal risks is updated yearly.	3.81	1.88	.55
	…it is stated what fiscal risks must be avoided.	5.41	1.28	.59
	…processes are formally described (for example, in a manual).	4.35	1.89	.54
	…the descriptions of processes include tax risks.	3.39	1.69	.67
	…the descriptions of processes include (formal) internal controls.	4.08	1.85	.64
	…fiscal risks are controlled using (formal) internal monitoring.	4.79	1.66	.63
	…the correct operation of fiscal internal controls is subject to monitoring.	4.40	1.58	.71
	…the monitoring of internal controls is described in a plan.	3.45	1.82	.61
	…the monitoring of internal controls is performed by a separate internal audit department or an internal auditor.	3.10	2.05	.44
	… fiscal performance indicators are derived from the fiscal targets.	3.35	1.72	.55
	… fiscal performance indicators are unambiguous.	3.56	1.80	.60
	…the realisation of fiscal targets is periodically reported to the board.	3.82	1.92	.62
	…the roles and responsibilities of fiscal staff are clear.	5.01	1.58	.63
	…the roles and responsibilities of fiscal staff are formally stated.	4.01	1.81	.64
	…we invest in training and education to keep the knowledge of fiscal staff up to date.	5.54	1.20	.58
	…employees in fiscal positions are competent enough to carry out these tasks.	4.85	1.68	.55
Perceived Certainty				
CR=.88	My organisation feels certain about tax returns that are filed.	6.03	0.92	.80
EV=2.92	My organisation receives sufficient certainty from the tax authorities regarding its tax position.	5.47	1.25	.82
AVE=.65	The handling of tax returns provides no surprises for my organisation.	5.87	1.02	.90
	My organisation knows where it stands with regard to fiscal matters.	5.75	1.07	.89

a All items were measured on a seven-point scale (1=completely disagree to 7=completely agree)

b All translations from Dutch by authors

CR=Composite Reliability, EV=Eigenvalue, AVE=Average Variance Extracted, M=Mean, SD=Standard Deviation, FL=Factor Loading

Results

In order to test our hypotheses, we first examined the correlations between the variables. Table 6 presents the correlation matrix for all variables in the present study.

The need for certainty about the tax position correlated significantly with turnover, but not with the organisation being a multinational and the number of employees. When turnover was higher, organisations expressed a stronger need for certainty about their tax positions ($r = .14$, $p < .05$). There were no significant correlations between these background characteristics and the importance of tax compliance.

Table 6: Bivariate correlations (Pearson, n=271, weighted 269)[8]

	M	SD	1	2	3	4	5	6
1.Multinational (no/yes)	1.66	0.47						
2.Number of employees	5.82	4.09	-.12*					
3.Turnover	3.05	1.15	.19**	.53***				
4.Need for certainty	5.81	1.06	.12	-.08	.14*			
5.Importance of tax compliance	6.35	0.88	.00	-.05	.07	.29***		
6. TCF	4.43	1.03	.04	-.02	.03	.29***	.23***	
7. Perceived level of certainty	5.78	0.91	.18**	-.11	-.06	.45***	.32***	.38***

** p < .05; ** p < .01; *** p < .001*

The need for certainty about fiscal matters was positively associated with the importance that was attached to tax compliance ($r = .29$, $p < .001$). No significant correlations emerged between the background characteristics of the organisation and the TCF. Both the need for certainty ($r = .29$, $p < .001$) and the importance of tax compliance ($r = .23$, $p < .001$) were significantly associated with the TCF.

The perceived certainty about the tax position, the dependent variable in our study, was significantly associated with all other variables except for the number of employees and turnover. Multinational organisations reported a higher degree of certainty than national organisations ($r = .18$, $p < .01$). Furthermore, the perceived certainty about the tax position was stronger when there was a stronger need for certainty ($r = .45$, $p < .001$), when more importance was attached to tax compliance ($r = .32$, $p < .001$) and when the TCF was better functioning and of higher quality ($r = .38$, $p < .001$).

Explaining the quality of the TCF

To test our first two hypotheses, we used regression analysis with the quality of the TCF as a dependent variable. As in Study 1, the independent variables were entered in two steps: first, only the background characteristics of the organisation were entered; second, the need for

[8] Turnover is measured on a five-point scale, with 1= ≤ €10 million, 2= > €10 million and ≤ €25 million, 3= > €25 million and ≤ €50 million, 4= > €50 million and ≤ €200 million and 5= > €200 million.
Number of employees is measured on a fourteen-point scale, with 1= ≤ 50, 2= > 50 and ≤ 75, 3= > 75 and ≤ 100, 4= > 100 and ≤ 150, 5= > 150 and ≤ 200, 6= > 200 and ≤ 250, 7= > 250 and ≤ 300, 8= > 300 and ≤ 350, 9= > 350 and ≤ 400, 10= > 400 and ≤ 500, 11= > 500 and ≤ 750, 12= > 750 and ≤ 1,000, 13= > 1,000 and ≤ 2,000 and 14= > 2,000.

certainty about the tax position and the importance attached to tax compliance were added. The results are displayed in Table 7.

Table 7. Results of regression analyses of Study 2 explaining the quality of the TCF (n=271, weighted 269)

	B	SE	Beta	B	SE	Beta
Multinational (no/yes)	.05	.14	.02	.04	.13	.02
Number of employees	-.01	.02	-.05	-.01	.02	.02
Turnover	.05	.07	.05	-.02	.07	-.03
Need for certainty				.24***	.06	.25***
Importance of tax compliance				.19***	.07	.16***
F		.33			6.29***	
d.f.		3,265			5,263	
R^2 (adj. R^2)		.00 (.00)			.11 (.09)	

** p < .05; ** p < .01; *** p < .001*

In the first step, the model was not significant. In the second step, we found both the need for certainty and the importance of tax compliance to be significant predictors of the quality of the TCF. As expected, both a stronger need for certainty ($\beta = .25$, $p < .01$) and more importance attached to tax compliance ($\beta = .16$, $p < .01$) predicted a TCF of higher quality. The final model explained 11% of the differences in quality of the TCF.

Explaining perceived certainty

In order to test the third hypothesis, regarding the multivariate relationship between the variables, we conducted a regression analysis with the perceived certainty about the tax position as the dependent variable. As in Study 1, we included the independent variables in three steps: first, the background characteristics as control variables; second, the need for certainty about the tax position and the importance attached to tax compliance; and third, the quality of the TCF. The results are displayed in Table 8.

In the first step, a significant regression weight emerged in respect of whether or not the organisation was a multinational. Just as the correlation analysis showed, multinationals reported a higher perceived certainty than national organisations ($\beta = .19$, $p < .01$). The regression weights for number of employees and turnover were not significant. Only 3% of the differences in the perceived certainty about the tax position were explained by the background characteristics.

In the second step, both the need for certainty and the importance of tax compliance were found to be significant predictors of the differences in the perceived certainty about the tax position. As expected, both a stronger need for certainty and more importance attached to tax compliance predicted a greater degree of perceived certainty (Betas are .40 ($p < .001$) and .23 ($p < .01$) respectively). Adding these variables also changed the effect of turnover, which became a significant predictor ($\beta = -.18$, $p < .05$). When the need for certainty and the importance of tax compliance were taken into account, organisations with higher turnovers reported lower perceived certainty about their tax positions. Together, the variables in step 2 explained 28% of the differences in the perceived degree of certainty.

Table 8. Results of regression analyses of Study 2 explaining the perceived level of certainty about the tax position (n=271, weighted 269)[9]

	B	SE	Beta	B	SE	Beta	B	SE	Beta
Multinational (no/yes)	.36**	.12	.19**	.34**	.11	.18**	.33**	.10	.17**
Number of employees	-.01	.02	-.06	.01	.01	.05	.01	.01	.04
Turnover	-.05	.06	-.06	-.15**	.05	-.18**	-.14**	.05	-.18**
Need for certainty				.34***	.05	.40***	.29***	.05	.34***
Importance of tax compliance				.23***	.06	.23***	.19**	.06	.19**
TCF							.21***	.05	.24***
F		4.02**			21.31***			22.28***	
d.f.		3,265			5,263			6,264	
R^2 (adj. R^2)		.04 (.03)			.29 (.28)			.34 (.32)	

** p < .05; ** p < .01; *** p < .001*

The third step added the TCF, which emerged as a significant predictor of the degree of certainty over and above the background characteristics, the need for certainty and the importance of tax compliance. A higher quality TCF (β =.24, p<.001) predicted a higher degree of certainty. The complete model explained 32% of the variance.

To test whether the quality of the TCF mediated the effect of the need for certainty on perceived certainty about the tax position, we conducted a set of regression analyses using coefficients from 10,000 bootstrap samples. The results showed that the 95% confidence interval for the indirect effect of the TCF [.03, .10] did not contain zero. More specifically, including the quality of the TCF in the regression equation reduced the effect of the need for certainty on certainty about the tax position (from $\beta = .40$, $p < .001$ to $\beta = .34$, $p < .001$).

We performed the same analyses to test whether the quality of the TCF mediated the effect of the importance of tax compliance on perceived certainty about the tax position. The results showed that the 95% confidence interval for the indirect effect of TCF [.01, .08] did not contain zero. More specifically, adding the quality of the TCF as a mediator reduced the effect of the importance of tax compliance on perceived certainty about the tax position (from $\beta = .23$, $p < .001$ to $\beta = .19$, $p < .01$).

In line with expectations, the quality of the TCF partly mediated the relationship between the need for certainty and the importance of tax compliance on perceived certainty about the tax position. With the TCF included, 32% of the differences in perceived certainty about the tax position were explained.

5. CONCLUSIONS AND DISCUSSION

This paper investigates whether a stronger need for certainty about the tax position and a stronger need or wish to comply with tax rules and regulations motivates large organisations to invest in their TCFs. It also explores whether the quality of a TCF determines how large organisations feel about their tax positions. The data from two surveys conducted among senior officials responsible for tax matters in large organisations confirmed the hypothesised associations between the need for certainty about the tax position and the quality of the TCF

[9] In additional analyses (untabulated), two dummies for the three strata were added. No significant effects of these dummies were found, nor were the other relationships in our model significantly affected.

(Hypothesis 1) and between the importance attached to tax compliance and the quality of the TCF (Hypothesis 2). Also, having a better functioning and higher quality TCF positively predicted the perceived level of certainty about the tax position (Hypothesis 3).

Although Study 1 and Study 2 provided support for the hypotheses, there were some differences in the central findings of both studies. Study 2 showed significant relationships between both the need for certainty and the importance attached to tax compliance and the perceived level of certainty, and these relationships were mediated by the quality of the TCF. In Study 1, a significant correlation emerged between the importance of compliance and the perceived level of certainty about the tax position but not between the need for certainty and the perceived level of certainty. The quality of the TCF in Study 1 significantly mediated the relationship between the importance of compliance and the perceived level of certainty about the tax position. Thus, the association between the need for certainty about the tax position and the perceived certainty about the tax position differed between the studies.

Although both studies controlled for several characteristics of the organisations (number of employees, turnover, and whether they were multinationals or not), this difference may have been be caused by differences in the composition of the two samples. The sample for Study 2 consisted of larger organisations than those used in Study 1. It may be that the correlation is stronger among larger organisations because they are more capable of converting their need for certainty into perceived certainty about their tax positions. The difference might also be due to the ways in which the need for certainty is conceptualised in the studies. Study 1 asks about the consequences for the organisation of (un)certainty about the tax position, while Study 2 assesses how important it is for the organisation to get this certainty from the tax administration. The possible negative consequences of uncertainty about the tax position can be circumvented in several ways besides getting certainty from the tax administration; for instance, by avoiding risky fiscal positions. A more refined definition and conceptualisation of the need for certainty about the tax position will benefit future studies.

Finally, the divergent results could be attributed to the fact that the studies were administered at different times. Study 1 was conducted in 2011 and Study 2 in 2014. This period is characterised by increasing public attention to the tax behaviour of, especially, large organisations, e.g. the hearings in respect of Amazon, Starbucks and Google by the Committee of Public Accounts, a committee of the British House of Commons. These hearings emphasised the international role played by the Netherlands in the tax aggressive behaviour of large organisations. The public indignation that followed was widely reported in the press. This led to more attention being paid to the tax behaviour of Dutch multinationals and, in 2013, the Dutch government stating that it wished to tackle the aggressive tax behaviour of large organisations.[10] This may have increased organisations' need for control over, and certainty regarding, tax matters (Gallemore & Labro, 2015) and, thus, may have affected the strengths of the relationships between the focal concepts of our studies.

In addition, Study 1 showed that the quality of the TCF was a significant predictor of the perceived certainty about the tax position, while control effort was not. Study 2 used a more elaborate measure for the TCF and also showed that a higher quality TCF was a significant predictor of the perceived level of certainty about the tax position. Both studies showed that the quality of the TCF partly mediated the relationship between the importance attached to tax

[10] See: https://www.rijksoverheid.nl/actueel/nieuws/2013/08/30/kabinet-pakt-internationale-belastingontwijking-aan (in Dutch, visited March 24, 2018).

compliance and the perceived level of certainty about the tax position. Additionally, Study 2 showed that the quality of the TCF partly mediated the relationship between the need for certainty and the perceived level of certainty about the tax position. These results suggest that large organisations that have a need for certainty about their tax positions and a need or wish to comply with tax rules and regulations see to it that they have effective TCFs. In line with the findings of Beck and Lisowsky (2014), the results showed that having an effective TCF strengthened the perceived level of certainty about the tax position.

Before discussing the results further, some points regarding the methodology of the two studies need to be addressed. The reasoning followed in this paper suggests that the need for certainty and the importance attached to compliance are motives for large organisations to develop and implement TCFs. This will lead to better detection of risks and the possibility of disclosing these risks to the tax authority, thus resulting in a higher perceived level of certainty about the tax position. However, the present study does not allow for a test of the causality of the hypothesised paths. It could also be that the fact that a TCF is implemented in an organisation signals to respondents that the organisation has a need for certainty concerning its tax position and has a wish to comply with tax rules and regulations. On the other hand, as Jokipii (2010) shows, organisations have different characteristics and adapt their internal control structures to deal with environmental uncertainty and to achieve control effectiveness. This supports the line of reasoning that the control system is there for a reason and – as the results corroborated – the need for certainty or perhaps the need to reduce uncertainty is an important driver for improving the quality of this control system. Further research could explore the causality of relationships further by using a longitudinal research design whereby organisations are followed over time. Alternatively, qualitative research could be done, asking key figures in organisations about their motives for improving their TCFs and the consequences thereof.

Furthermore, responses may be biased because they come from specific sources within the organisations. However, special care was taken to select the best-informed person(s) with regard to fiscal matters within each organisation. Also, as with all self-reported (and especially tax-related) surveys, we face the social desirability bias. This bias was mitigated as far as possible by having strict anonymity for responders and by asking about organisational attitudes instead of personal attitudes (cf. Nielsen & Parker, 2012). Finally, both studies were conducted in one country, the Netherlands, potentially limiting the external validity of our results. Differences in tax morale between countries, for example, might affect the relationships found in our studies (cf. Alm, Sanchez, & De Juan, 1995). However, since large businesses often operate internationally, it seems likely that country-specific effects are smaller for large businesses than for individuals. In countries where the tax authority does not offer the possibility for large businesses to consult with it, those businesses might be less willing to invest in their TCFs. The present results might be different in such countries. However, consulting with the tax authority to reduce the uncertainty of tax positions is possible in an increasing number of countries (OECD, 1999).

In line with the ideas of the new governance approaches, the OECD actively promotes cooperative compliance programmes. However, cooperative tax compliance programmes and similar new governance approaches in other domains are also criticised. The lack of empirical studies concerning the dynamics and the results or merits of internal control frameworks and cooperative (tax) compliance programmes is therefore striking (Krawiec, 2003). Colon and Swagerman (2015) found that when large organisations perceive that there are advantages to being in a cooperative relationship, their willingness to partake in a cooperative tax compliance programme increases. The present study adds to this finding by showing that the need for certainty and the wish to be compliant stimulate organisations to improve the quality of their TCFs. This supports one of the key assumptions underlying cooperative compliance programmes as expressed by the OECD (2013). The OECD assumes that taxpayers strive for tax certainty and having a TCF in place is a way to achieve this certainty. However, the present study does not provide insights into how having a well-functioning TCF produces a stronger perceived level of certainty about the tax position. The assumption, as described by the OECD (2013) and NTCA (2013), is that certainty will result from the TCF in three ways. Firstly, the TCF detects significant tax risks and that, in itself, strengthens perceived certainty (if you can't detect the risks, you don't know whether there are risks). Secondly, the TCF enables organisations to disclose all significant tax risks to the tax authority. Organisations will be informed about the opinion of the tax authority on the disclosed tax positions and transactions, resulting in a higher degree of certainty. Thirdly, the TCF supports organisations to meet their legal obligations with regard to the submission of complete, correct and timely tax returns, and declarations and payment of due taxes. A remaining question is whether an increase in tax certainty is a consequence of tax authorities providing this certainty, as the OECD assumes when characterising cooperative compliance as "transparency in exchange for certainty", or whether the TCF can increase tax certainty for large organisations by itself.

The two studies presented in this paper provide support for the line of reasoning underlying the cooperative compliance policy as advocated by the OECD (2013) and the NTCA (2013). It appears that improving the quality of a TCF can provide an organisation with more certainty about its tax position. Cooperative compliance programmes stimulate organisations to improve their TCFs and this can benefit these organisations (cf. De Simone, Sansing, & Seidman, 2013). Whether improving the quality of a TCF also leads to improved tax compliance, and thus also benefits tax authorities, is an important question for future research to address.

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