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Tax compliance over the firm life course

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Abstract
This article provides a new model of tax compliance over the firm life course, focusing on the dynamics in the underlying motivations and capacities for tax compliance. We review and structure the relevant literature on the early life course of firms: the traditional stages of growth models and a less deterministic dynamic state model of developmental phases. Building on these insights on the changing nature of the firm and the role of the founder-entrepreneur, we construct a new model of tax compliance over the firm life course. We provide several potential avenues for future research as well as practical implications of our model.

Keywords
firm capacity, firm life course, motivation, tax compliance

Introduction

Tax compliance remains a point of contention given the lack of sanctions and the opportunities for both individuals and firms not to pay taxes and the relatively high burden of tax compliance costs for small business (Chittenden et al., 2003). In this article, we focus on tax compliance over the firm life course. Most, if not all of the literature on tax compliance has focused on natural persons (see e.g. the review by Andreoni et al., 1998) or on a static, homogenous notion of legal persons. This is problematic if we want to understand how tax compliance evolves during the life course of firms, in which there is a changing role of the natural person (the founder, owner-manager, executive) as well as structural changes of the legal person with changes in legal structure, organizational structure, ownership, dispersion of locations, etc. We take firm heterogeneity as the starting point, not as a marginal issue. We focus on this heterogeneity over the firm life course taking a diachronic

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micro perspective focusing upon change over time. This is complementary to previous research on tax compliance from a synchronic micro perspective, and from a macro perspective, either synchronic or diachronic. If the formal institutions of tax law are given, variety in tax compliance within a country is likely to be driven by heterogeneity in the capacity for tax compliance and in the motivations, conditioned by social norms, of the relevant decision-makers. These capacities and motives are likely to change over the firm life course.

Tax compliance can be approached from many perspectives: as a problem of public finance, law enforcement, organizational design, labour supply, ethics or a combination of each of them (Andreoni et al., 1998). From a traditional economic point of view, the puzzle is as follows (Posner, 2000: 1782): the penalty for tax convictions is small; the probability of detection is trivial; so the expected sanction is small. Despite this, most people pay their taxes.[1] This contradicts the standard economic model of law enforcement, which holds that people violate a law if the benefit exceeds the expected sanction. It has been concluded that the explanation for the tendency to pay taxes can be found in the behavioural literature; for example, it can be argued that people are complying to a norm – that of tax payment or a more general norm of law-abiding behaviour.[2] A necessary condition for tax compliance is the presence of formal institutions that provide the rules for taxation. A contingent condition is the degree of enforcement of these rules,[3] and the social norms motivating individuals to comply with the rules of taxation (Rawlings, 2012; Wenzel, 2005).

Although we focus on tax compliance over the firm life course in this article, we also take into account the literature on tax avoidance. Tax avoidance largely, but not completely, overlaps with tax compliance. For example, the transition from a national to a global corporate tax strategy might lower the overall effective tax rate (ETR) of a firm (increasing tax avoidance), but does not necessarily result in lower tax compliance. This observation also relates to the difference in violating legal or ethical standards: tax avoidance might be legally acceptable, but ethically unacceptable (see the recent discussions about the corporate social irresponsible tax behaviour of multinational firms; Elliott, 2013). In this regard, Posner (2000) makes a distinction between legal and moral tax compliance, emphasizing the role of reputation and social norms in explaining tax compliance beyond rational choice expectations - i.e. beyond formal law enforcement.[4]

The purpose of this article is to improve our understanding of tax compliance of firms over their life course; our central research question is: how and why does tax compliance change over the life course of firms? In order to address this question, we first, review and structure the relevant literature on the early life course of firms: the traditional stages of growth models and a less deterministic dynamic state model of developmental phases. Next, we will discuss the implications for tax compliance over the life course of firms, focusing upon heterogeneity in the capacity for tax compliance and the motivations, conditioned by social norms, of the relevant decision-makers, as these are likely to change over the firm life course. We will finish with conclusion from our review, and provide recommendations for future research.

The changing nature of the firm over the life course

In order to understand tax compliance of young and/or small firms over their life course, we need to take into account the heterogeneity of these firms over time. In order to analyse this heterogeneity, we turn to the academic literature on the changing nature of the firm over the life course. Firm growth and temporal dynamics have been a key topic in economics, entrepreneurship and management literature for some time. One dominant approach for understanding entrepreneurial business growth since the founding of the firm has been the stages of growth models. This approach provided insight into the changing nature of the firm over time particularly the changing role of the founder and owner-manager. Notwithstanding the

Table 1. Assumptions and propositions of stages of growth models and dynamic state models.

	Stages of growth models	Dynamic state models
Assumption	Organizations grow as if they were organisms	Each state represents management's attempts to most efficiently/effectively match internal organizing capacity with the external market/customer demand
Propositions: what	Configurations of structural variables and management problems	Configuration of structural variables and organizational activities (aspirations)
Propositions: how	A specific number of progressive stages Sequence and order is predictable Incremental and punctuated transitions	Any number of states Sequence and order may be predictable depending on context Incremental and punctuated transitions, and emergence
Propositions: why	Immanent program of development Prefigured rules of development Regulated by environment	Adaptive process of retaining the sustainability of a business model Interdependent rules for development Driven by market change and opportunity creation

Source: Levie and Lichtenstein (2010).

useful contributions of this approach, it suffers from several shortcomings which led to a new approach the dynamic state approach (Garnsey, 1998; Garnsey et al., 2006) compatible with leading edge research in economics, management and entrepreneurship (Levie and Lichtenstein, 2010). The key assumptions and propositions of both approaches are summarized in Table 1 and discussed in the subsequent sections.

Stages of growth models

Stages of growth models – sometimes called life cycle models – have been the most frequently used theoretical approache to understanding entrepreneurial business growth (see Levie and Lichtenstein, 2010 for a review). Such models of growth regard firm development as a progressive accumulation of stages; we will discuss some of the prominent growth models by Greiner (1972), Churchill and Lewis (1983), Scott and Bruce (1987) and Hanks et al. (1993). Stages of growth models focus on the changing nature of the firm and the changing role of the founding entrepreneur. More in particular, they emphasize the increased professionalization of the founding entrepreneur and the organization through the life course of a successful firm (Crijns and Ooghe, 1997).

Greiner's (1972) article 'Evolution and revolution as organizations grow' can be regarded as the 'mother' of all stage models of growth. It explains growth by overcoming growth crises specific to each stage of growth. The stages of growth and, according to the model, their inevitable growth crises, are as follows: growth through creativity (leadership crisis), growth through leadership (autonomy crisis), growth through delegation (control crisis) and growth through coordination (bureaucracy crisis).

The model by Churchill and Lewis (1983) distinguishes five organizational stages: existence, survival, success, take-off and resource maturity. The optimal management style differs per stage,

Table 2. Description of stages of growth models.

	Greiner (1972)	Churchill and Lewis (1983)	Scott and Bruce (1987)	Hanks et al. (1993)
Focus	Growth crises	Common problems arising at specific stages of growth	Management role, management style, organization structure	Configurations of organizational context and structure
Stages of growth	1. Growth through creativity (leadership crisis) 2. Growth through leadership (autonomy crisis) 3. Growth through delegation (control crisis) 4. Growth through coordination (bureaucracy crisis)	1. Existence 2. Survival 3. Success 4. Take-off 5. Resource maturity	1. Inception 2. Survival 3. Growth 4. Expansion 5. Maturity	1. Start-up 2. Life style 3. Expansion 4. Limited growth 5. Maturity 6. Diversification

from direct supervision, to supervised supervision, functional, divisional and line and staff. During these stages, the owner/founder also becomes less important and more removed during the take-off and final resource maturity phase.

A similar model has been developed by Scott and Bruce (1987) who infer that firms move through stages of inception, survival, growth, expansion, into maturity. During these stages, the top management role changes from direct supervision to supervised supervision and delegation/coordination to decentralization in the last two stages. Correspondingly, the management style changes from entrepreneurial in the first three stages characterized as, respectively, individualistic, administrative and co-ordinate, to professional-administrative in the fourth stage and watchdog in the fifth stage. The organization structure changes accordingly from unstructured, simple, to centralized and finally decentralized, functional. A somewhat more recent and more empirically grounded model is the one by Hanks et al. (1993). This model distinguishes six stages – first: start-up; second: life style; third: expansion; fourth: limited growth; fifth: maturity and finally, diversification. The life style stage two and limited growth stage four are 'branches' that are not followed by the subsequent phases. This model distinguishes these stages based on the stage-specific configurations of organizational context and structure. The four models are summarized in Table 2.

The stages of growth literature provide descriptions of how the role of the natural person of the entrepreneur (founder, owner-manager) changes during the life course of the firm, and how the organizational structure and potentially the legal structure of the firm changes. These models do not make direct predictions on either legal form or tax compliance during the different life cycle stages of the firm. But we can infer that, for example, the owner-manager of the firm is likely to have a decreasing impact on tax compliance. This is due to delegation of specialized tasks to other professionals inside the firm, increasing use of taxation expertise outside the firm, relatively smaller weight in decision-making when the firm becomes separated from the founder as a separate legal entity (legal person), and also, dilution of ownership share of the founder(s) over time.

A major event in the life course of the firm in this respect is the establishment of a legal entity with limited liability, in which owners _ (first and foremost the founders but also other investors _

are not automatically personally responsible for corporate liability. The establishment of a legal entity has two potential consequences: first, the influence of external shareholders increases as owners can sell their shares to other investors such as venture capital firms, banks, or private investors; this reduces the influence of the owner on all types of decisions, including tax compliance. Second, in the course of the lifetime of a firm, the owner is generally replaced with professional manager(s) who are likely to have a marginal stake in the ownership of the firm. This increases the likelihood that tax compliance policies change.

Although the literature on stages of growth models provides useful insights into how firms might change during their life course, there is no consensus on how many stages there are, on the necessary sequences or on the dominant problems at turning points (see Stam and Garnsey, 2006). There is also no empirical evidence on the universal applicability of these models (see Garnsey et al., 2006; Phelps et al., 2007; Levie and Lichtenstein, 2010). In that perspective, another stream of literature that takes a less deterministic view on the growth of firms is useful.

Developmental phases in the early life course of firms

To analyse the effect of firm life course development on tax compliance, we distinguish a number of distinct periods or development phases. These phases do not necessarily represent a predictable sequential but are used to structure the development of new fast-growing firms, constructing a so-called dynamic state model (Levie and Lichtenstein, 2010). This 'temporal bracketing' in the form of developmental phases permits 'the constitution of comparative units of analysis for the exploration and replication of theoretical ideas' (Langley, 1999: 703). The developmental phases constitute comparative units of analysis for the exploration of the interaction between the development of firms over time and their tax compliance. Gaining insight into the changing nature of firms is a necessary condition for the general purpose of this article – improving our understanding of tax compliance by firms over their life course. We define these distinct developmental phases as those that are dominated by specific processes and legal structures.

The start-up phase is the period in which an entrepreneur recognizes a business opportunity and starts to mobilize the resources needed to take advantage of the opportunity. In this phase, the firm is often, although not necessarily always, established as a legal entity. Legal entity structures may include sole proprietorships, partnerships and limited liability companies; most firms start from sole proprietorship. The entrepreneur's choice of legal structure determines how it is taxed and, therefore, may also affect tax compliance as different structures provide different opportunities for tax avoidance (Hanlon and Heitzman, 2010). The start-up firm emerges out of the combination of the resources to which the entrepreneur has direct access, and their ability to mobilize resources. This resource base has to be deployed in order to realize an opportunity. It is comprised of the firm's processes (e.g. the development of new products, sales/marketing and logistics) and asset positions that collectively encompass its competences and capabilities (Teece et al., 2000). The financial characteristics of the firm in this phase are likely to be low turnover and no personnel payments. Initial revenues from operations are likely to be directly reinvested.[5]

The initial survival phase is the period after the start-up phase in which new value is created and provided to a product-market, and returns are captured as the outcome of a process of competition. In more abstract terms, at this stage, the firm is able to generate resources through its own productive and commercial activities. Financial resources (profits) are generated as the outcome of the processes of value creation, delivery and capture through the deployment of an effective business model means that the firm is able to survive in a market economy. Sometimes, this is survival with

very marginal returns such as the self-employed with incomes close to the poverty threshold. To survive in a market economy in the longer term, entrepreneurs have to solve basic problems; after the necessary resources have been found, the product has to be developed, produced and connected to suppliers and customers and, as a result, entrepreneurs may develop competence in various areas (Hugo and Garnsey, 2004). The financial characteristics of the firm in this phase are likely to be increasing and stabilizing turnover, reaching the break-even point; generating resources; increasing investments; and initializing personnel payments to newly hired employees as well as to the entrepreneur.

When the firm not only survives but also grows, it enters the early growth phase – the period in which the growth of the firm's tangible and intangible assets exceeds a certain measurable threshold (Garnsey et al., 2006). This growth may be caused by various processes and may occur in different ways. Two dominant processes in this phase are the profitable exploitation of new market opportunities and the delivery of products to a growing customer base, increasing market share. Growth may also be the result of an 'artificial' process of acquiring resources, whereby external investors supply financial resources, expecting superior returns in the future. The financial characteristics of the firm in this phase are likely to be increasing turnover, high investment and increasing personnel payments. From a legal perspective, firms are likely to adopt more complex legal forms, primarily from proprietorship to limited liability (Cole, 2011). The decision to opt for limited company status is not necessarily made when the business begins trading; so for example, Freedman and Godwin (1992, 1994) report that 40% of limited companies started as either a sole proprietorship or partnership and then moved to limited company status at a later stage. The association between limited company status and growth can be in both directions (Storey, 1997: 140–141).

There is not only progress in the life course of entrepreneurial firms; periods of reversal, or what we call growth syndrome phases, are also common (Garnsey and Heffernan, 2005). A growth syndrome phase is a period in which the decrease in a firm's tangible and intangible assets exceed a certain measurable threshold. It can be caused by a plethora of factors that are related to the entrepreneur or entrepreneurial team the firm and the external environment. Financially, there are at least two routes to such a growth syndrome. First, when a firm grows too quickly: fast-growth demand and high levels of investments together with delayed returns can lead to severe cash problems. Second, a quick reduction in turnover, perhaps due to some external shock, together with increasing or stable investments and personnel payments can lead to substantial losses; without financial buffers, this will lead to a growth syndrome.

Although similar to the early growth phase in a number or respects, the final phase – the accumulation phase – is different in one important aspect, the accumulation of resources. Resource accumulation is caused by the same processes that are dominant in the early growth phase, but in the accumulation phase, the outcome is more favourable with regard to the processes that lead to excess capacity (Penrose, 1995) and organizational slack (Cyert and March, 1963). These two outcomes can lead to the additional deployment of resources and the reinvestment of surplus financial resources, respectively. The resource-accumulation process allows firms to respond to environmental changes without succumbing to shortage of resources similar to the growth syndrome phase. In this phase, firms are able to grow not only in an organic way, but also through acquisitions because they have the financial and managerial resources to take over relatively large firms. The financial characteristics of the firm in this phase are likely to be high turnover, high profits[6] and personnel payments on a large scale. The various phases and dominant processes and legal forms are summarized in Table 3.

Although the various phases are presented in a specific sequence, this does not imply that they necessarily occur in the sequence in which they are presented (Garnsey et al., 2006). A study of these processes and phases provides essential insights into the changing nature of firms and the

Table 3. Developmental phases and dominant processes.

Developmental phase	Processes	Legal form (dominant)
Start-up	Opportunity recognition and resource mobilization	None/sole proprietorship/ partnership
Initial survival	Resource generation (create and deliver value and capture returns)	Sole proprietorship/partnership/ limited
Early growth	Surplus resource generation/ opportunity recognition	Limited
Growth syndrome	Resource detraction	Limited
Accumulation	Resource accumulation	Limited/stock listed corporation

sources of their diversity, which allows us to analyse the influence that the development of firms, in general, has on tax compliance of firms.

Tax compliance over the firm life course

What are the implications of these insights into the changing nature of the firm, and the changing role of the natural persons (founders, owners, managers, executives, shareholders, debt holders, etc.) in the firm, for tax compliance over the firm life course? Before we address these issues, we first discuss different tax regimes across the world as these are also likely to affect tax compliance costs (Chittenden et al., 2003) and tax compliance behaviour. Next, we discuss the dissimilarities in the importance of tax compliance to the firm's different stakeholders. Finally, we analyse this issue with two dimensions: motivation for tax compliance and capacity for tax compliance.

Differences in tax regimes

The Organisation for Economic Co-operation and Development (OECD, 2015) defines taxes as the 'compulsory, unrequited payments to general government. They are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments'. The OECD methodology classifies a tax according to its base: income, profits and capital gains; payroll; property; goods and services; and other taxes. Compulsory social security contributions paid to general government are also treated as taxes, and are classified under a separate heading (OECD, 2015).

In this article, we treat taxes in a very general sense; however, it should be noted that there are large differences in the institutional settings of different countries. For example, in 2012, OECD countries collect on average 34% of their revenues through taxes on income and profits (personal and corporate income taxes taken together; OECD, 2015); this ranges from 17% (Hungary) to 61% (Denmark). In addition, the variation in the share of the personal income tax between countries is considerable. In 2012, it ranged from 9% in the Slovak Republic to 51% in Denmark. Similarly, the share of the corporate income tax in total tax revenues shows a considerable spread, from 3% (Greece, Hungary and Slovenia) to 25% (Norway). Within specific categories, there are also large differences in taxation for instance, the amount of pre-tax income earned by investors can be split into three components (Harding, 2013): the portion paid to the government as corporate tax, the portion paid in personal tax and the portion received by the shareholder. For example, in Slovakia, 20% of the pre-tax corporate income is paid in corporate taxes; there is no personal tax on distributed income, and the remaining 80% is received by the shareholder as post-tax income. In Sweden, 26% of pre-tax corporate income is paid in corporate taxes; 22% is

paid in personal taxes, and the remaining 52% is received by the shareholder as post-tax income. A detailed discussion of different taxes, elements to be taxed, tax percentages and tax enforcement is beyond the scope of this article; however, the OECD (2009) recognizes that tax systems have a significant impact upon entrepreneurial activity. Therefore, it should be recognized that the particularities of the tax system of individual countries are likely to affect tax compliance and tax avoidance over the firm life course.[7]

Tax compliance and the firm's stakeholders

Taxes affect both the firm and its stakeholders (Gupta and Newberry, 1997; Shackelford and Shevlin, 2001). For example, if the entrepreneur has structured the firm as a corporation, it pays income taxes which axiomatically, lower the net income which may be distributed to shareholders. As income taxes can be substantial, often consuming more than a third of pre-tax profits (Graham et al., 2014), reducing taxes will enhance shareholder distributions as dividends are generally defined as a percentage of net income. In addition, as a shareholder, the entrepreneur pays dividend taxes (on dividends paid out by the firm) and potentially capital gains taxes[8] on shares held by the entrepreneur in the company. As an employee, the entrepreneur pays payroll taxes generally withheld by the firm based upon the salary paid. The firm, as an employer, should consider tax effects for employees when structuring compensation arrangements; for example, trading-off fixed salaries and payroll taxes against stock option plans and capital gains taxes, not only for the CEO but also for other executives. Firms have to manage several tax-related decisions to optimize performance; in addition, tax compliance in one area may not be associated with tax compliance in other areas; for example, capital gains taxes, payroll related taxes. Despite the recognition that tax compliance covers different taxes, most empirical research has focused on income tax; this is mostly due to data availability.

Related to the previous issue is that empirical research on tax compliance usually takes the ETR as a proxy for tax compliance. It should be noted that firm characteristics as well as managerial decisions affect the ETR. For example, a key decision across different growth phases is the financing decision; interest expenses are tax deductible and dividends are not; therefore, increasing debt reduces taxes to be paid and reduces the ETR. Similarly, a firm's asset mix could impact upon the tax paid as tax codes provide incentives to invest in specific activities , for example, R&D or allow taxpayers to write-off specific assets over periods shorter than their economic lives. As such, a lower ETR does not necessarily mean lower tax compliance.

Motivation for tax compliance

With respect to the motivation of tax compliance, we make a distinction between two types of rationality: value rationality (norm-driven behaviour) and instrumental rationality (Weber, 1978). Motives related to value rationality are conditioned by the norms and values of the broader social environment of the entrepreneurs, executives and employees, ranging from the organization's culture to the prevalent norms and values in the industry, region and country. These norms and values have been shown to effect tax compliance (Bobek et al., 2013; Rawlings, 2012).

We expect the motivation for tax compliance mainly to be driven by the moral concerns of the founder in the initial phases of development – start-up, survival and early growth. Of course, there will be variation in the degree to which moral concerns dominate founder motivation for tax compliance (Ahmed and Braithwaite, 2005), but we expect it to be different from the more instrumental motivations that dominate in the growth syndrome phase and the accumulation phase.[9] A number of founder characteristics are likely to be associated with tax compliance: these include the personal and social norms of tax compliance (Ahmed and Braithwaite, 2005; Dyreng et al., 2010; Wenzel, 2005),

knowledge about taxation (Eriksen and Fallan, 1996) and personal attitudes such as risk attitude, intrinsic motivations such as civic duty (Hanlon and Heitzman, 2010) and egoism (Kirchler, 1997). In addition, motivation to pay taxes will also come from perceived audit and detection probabilities combined with deterring fines (Hanlon and Heitzman, 2010), involving instrumental rationality.

During the initial phases of development, companies are also likely to change ownership structure from sole proprietorship to limited liability firms and corporations. The entrepreneur's choice of legal structure determines how it is taxed, and is also likely to affect tax compliance (Hanlon and Heitzman, 2010); however, non-tax factors often dominate the decision for a specific organizational form. Several studies have looked at the relation between ownership structure and tax compliance. For example, Chen et al. (2010) provide evidence that family-owned firms avoid less income tax than non-family-owned firms. They argue that the dominant owner-managers of family-owned firms are willing to forgo the benefits of tax avoidance to reduce concerns by minority shareholders that such tax avoidance masks rent extraction by the family owner-managers. Badertscher et al. (2013) find that private equity firms significantly increase the tax effectiveness of the firms in which they invest. This tax planning expertise persists even after private equity firm ownership is substantially reduced or terminated.

In the growth syndrome phase, we expect that acute problems need to be solved with insufficient means, forcing the managers of the firm to be instrumental in tax compliance.[10] One key consideration is that managers will try to prevent bankruptcy.[11] Poor performance – far below expectations – creates tension, leading decision-makers to repair the gap through any means necessary (Harris and Bromiley, 2007). Tax avoidance might be one of the instruments to improve performance; any money saved in taxes directly translates into higher profits. Gupta and Newberry (1997) provide empirical evidence that lower tax rates, suggesting lower tax compliance, are associated with lower profitability and higher leverage.

In the accumulation phase, we expect managers to focus more on the optimization of taxation. Larger firms have greater resources to influence the political process in their favour, engage more extensively in tax planning and organize their activities in such a way that they can achieve optimal tax savings. Under this political power theory, larger firms are expected to have lower ETRs (Gupta and Newberry, 1997). Alternatively, the political cost theory suggests that larger firms are victims of greater regulatory actions; as taxes are one element of the total political costs, larger firms face higher ETRs (Zimmerman, 1983). Empirical evidence on the relation between ETRs and firms size is inconclusive (Gupta and Newberry, 1997; Rego and Wilson, 2012), suggesting that changes in size in itself may not be a determinant of changes in tax compliance. However, there is some evidence that firms with a strong pre-tax financial performance – such as in the accumulation phase – are more likely to engage in tax avoidance activities (Rego, 2003). In addition, such firms are more likely to commit illegal acts aimed at maintaining or further improving their organization's performance (Desai, 2013; Mishina et al., 2010). Illegal tax avoidance or other tax-related noncompliance behaviour might be two forms of illegal acts in this context.[12]

In the accumulation phase, firms also have the financial and managerial resources to acquire other firms in order to facilitate growth (Garnsey et al., 2006). Taxes are potentially important in an acquisition because first, they can be generated on the transaction; for example shareholders may prefer a stock acquisition over a cash acquisitions due to taxation issues; second, tax assets can be acquired and used to offset the acquiring tax liabilities of firms, subject to tax legislation; third, there may be new tax planning opportunities following the acquisition and fourth, there may be tax risks associated with the acquisition; for example, future legislation from prior aggressive tax avoidance (Hanlon and Heitzman, 2010). Previous research on the valuation of tax assets is mixed; yet, there is some evidence that acquisitions increase tax planning opportunities (see Hanlon and Heitzman, 2010: 158, for a review). Larger organizations also have opportunities for reducing taxes by locating operations in low-tax countries, by shifting income from high-tax locations to

low-tax locations, by exploiting differences between the tax rules of different countries, and by taking advantage of tax subsidy agreements with host countries (Rego, 2003).

The individual factors affecting the founder are also likely to apply to executives (Hanlon and Heitzman, 2010). Research has indicated that individual executives play a significant role in determining the level of tax avoidance (Chyz, 2013; Dyreng et al., 2010). These executives are not the founder and/or owner of the firm, but subsequent CEOs and/or CFOs with a relatively short tenure and small ownership percentage of the firm. It is argued that, despite being only one player in a very large organization, these executives have a statistically and economically significant effect on the level of tax avoidance (Chyz, 2013). For example, Dyreng et al. (2010) find that there is an approximately 11% swing in ETRs between the top and bottom quartiles of executives. Dyreng et al. (2010) suggest that this effect is especially caused by executives setting the 'tone at the top' with regard to tax activities. Such executives affect the internal 'rules of the game' with respect to activities that matter for tax avoidance. Such activities include setting compensation incentives of the tax director, hiring external advisors and emphasizing particular functional areas of the firm (e.g. operations, treasury, tax).

Related to the role of the CEO and/or the CFO are the issues that arise in widely held corporations due to the separation of ownership and control. Risk-neutral shareholders expect managers acting on their behalf to focus on profit maximization, which includes seeking opportunities to reduce tax liabilities as long as the expected incremental benefit exceeds the incremental cost (Hanlon and Heitzman, 2010). The separation of ownership and control also implies that if tax avoidance is a worthwhile activity, then owners ought to structure appropriate incentives to ensure that managers make tax-efficient decisions. This can be undertaken explicitly by linking incentives to tax outcomes, or linking pay to after-tax returns or stock prices. Empirical evidence (Rego and Wilson, 2012) indicates that larger equity risk incentives for CEOs and CFOs are associated with greater tax risk, and suggests that the responsibilities of the tax department director and his/her compensation contract affects tax compliance (Hanlon and Heitzman, 2010: 145; Armstrong et al., 2012; Graham et al., 2014; Minnick and Noga, 2010).

Capacity for tax compliance

The capacity of the entrepreneur and firm to comply with taxation rules depends on the degree to which entrepreneurs and firms accumulate knowledge about fiscal rules and regulations. Increased capacity for tax compliance can have divergent effects; on one hand, we might expect increased tax compliance as actors are better able to process and respond to taxation rules. On the other hand, we might expect increased tax avoidance as actors are better able to make use of taxation systems either legally or illegally.

There will be heterogeneity in capacity to comply with taxation rules, which is likely to relate to the development phases distinguished above. The capacity to comply accurately with taxation rules is likely to be relatively low during start-up, especially for de novo entrepreneurs learning how taxation of self-employment or incorporated firms exactly works. This situation is rather different for serial or portfolio entrepreneurs who are likely to have built up expertise in taxation and financial issues more generally in previous businesses.[13] During the survival phase, one might expect some routinization of the procedures that had to be established during the start-up phase, including taxation issues. This is likely to change during the early growth phase, when founders are confronted with new taxation issues related to personnel, and investments for expansion, that might also induce changes in the legal person and/or the role of the natural person of the founder. In the growth syndrome phase, the capacity for tax compliance is likely to be limited for other reasons the most prominent being the acute shortage of resources and administrative resources to deal with taxation issues.

In contrast, in the accumulation phase there is a relative abundance of administrative resources and taxation expertise that has been accumulated in the previous development phases. The result is an administrative system with which taxation can be optimized. The administrative expertise may result in the invitation to enter in 'enhanced relationship tax compliance programs' (De Simone et al., 2013). The stated purpose of enhanced relationship programmes is to increase transparency and cooperation between taxpayers and tax authorities in order to resolve tax issues in a timely manner. Admissions into these programmes are primarily based on size and the quality of the taxpayer's internal control system regarding tax risk. In addition, in the accumulation phase, firms tend to select a large auditing firm to signal the credibility of their financial statements to investors. Large auditing firms also tend to give tax advice; previous research suggests that higher tax service fees paid to auditors are associated with lower tax compliance (Cook et al., 2008).

Discussion and conclusion

The purpose of this article was to improve our understanding of tax compliance of firms over their life course; specifically we explored: How and why does tax compliance change over the life course of firms? In order to address this question, we have reviewed the relevant literature on the early life course of firms, more in particular the stages of growth models approach and the developmental dynamic state model. This has delivered insights on the changing nature of the firm over the life course, and more in particular the role and relative weight of the entrepreneur and other key executives in the firm's decision-making and the role of different types of resources. Based on these insights, we have discussed the implications for tax compliance over the life course of firms. We have focused on two key dimensions of heterogeneity over the life course, namely the capacity for tax compliance and the motivation for tax compliance. For each of these dimensions, we indicate how the changing nature of the firm over the life course, and the concomitant change in the role of the entrepreneur and particular resources, may affect the level of tax compliance. Figure 1 summarizes the potential impact of the different factors that affect tax compliance over the firm's life course.

Our review, summarized in Figure 1, provides several research avenues. Focusing on the capacity and the motivation for tax compliance, and building on the insights on the changing nature of the firm over the life course, allows us to come to new propositions regarding tax compliance We suggest that tax compliance may be relatively high in the start-up, survival and early growth phase. During the start-up phase, the capacity for tax compliance might be relatively underdeveloped, but low tax requirements, especially in tax regimes that favour start-ups, do not lead to relatively low tax compliance. During the survival and early growth phase, we expect tax compliance to be relatively high, perhaps somewhat less so in the early growth phase due to the learning needed to deal with changing tax requirements.

We expect tax compliance to be relatively low in the growth syndrome and accumulation phases, but for different reasons. In the growth syndrome phase, due to acute problems that need to be solved with insufficient means, both instrumental motivations and insufficient capacity are likely to explain low tax compliance. In the accumulation phase, tax compliance might be relatively low due to a small group of firms aiming to improve their financial performance via tax evasion. We also expect tax avoidance to be high in this phase, but this is due to the increased capacities to do so, especially to optimize taxation over different functions and locations, and over time.

Improved insights into firm heterogeneity over the firm life course may increase the efficiency and effectiveness of the implementation and enforcement of fiscal rules and regulations in general, and tax compliance in particular. These improved insights are necessary for a capable tax office, which does not only react to problems, but also anticipates problems of tax compliance.

Life course phase	**Start-up**	**Initial survival**	**Early growth**	**Growth syndrome**	**Accumulation phase**
Overall *motivation* for tax compliance	**Moral**	**Moral**	**Moral**	**Instrumental**	**Instrumental**
Impact of founder on tax compliance	High (personal norms, social norms, and personal attitudes of founder affect tax compliance)	High (personal norms, social norms, and personal attitudes of founder affect tax compliance)	High (personal norms, social norms, and personal attitudes of founder affect tax compliance)	Moderate (survival is key)	Low (founder is replaced by professional managers)
Ownership	Sole proprietorship/ partnership (personal taxation)	Sole proprietorship/ partnership/ limited (personal taxation)	Limited company (company, dividend and personal taxation)	Limited (company, dividend and personal taxation)	Limited/stock listed entity (company, dividend and shareholder taxation)
Private equity (PE)/Venture capital (VC)	Low PE/VC involvement	Low PE/VC involvement	High PE/VC involvement (increase in tax effectiveness)	Medium-high PE/VC involvement (stable high tax effectiveness)	Low PE/VC involvement (stable high tax effectiveness)
Family involvement	High (low tax avoidance)	High (low tax avoidance)	High (low tax avoidance)	Medium (increase in tax avoidance)	Low (increase in tax avoidance)
Firm financial stability	Moderate (variability in profits, low debt)	Moderate (variability in profits, low debt)	Moderate (variability in profits, low debt)	Low (low profits, high debt)	High (high profits, medium debt)
Mergers & acquisitions (M&A)	No M&A (no M&A tax planning opportunities)	No M&A (no M&A tax planning opportunities)	Medium M&A activities (some M&A tax planning opportunities)	No M&A (focus on survival, no M&A tax planning opportunities)	Medium-high M&A activities (substantial room for M&A tax planning opportunities)

Figure 1. (Continued)

Life course phase	**Start-up**	**Initial survival**	**Early growth**	**Growth syndrome**	**Accumulation phase**
Foreign operations	Low (operations only in home country)	Low (operations only in home country)	Medium (operations in home country and low tax countries, transfer pricing)	Low (refocus on operations in home country)	Medium-high (operations in home country and low tax countries, transfer pricing)
Replacement of CEO or CFO	No replacement (founder is CEO, stable administrative support)	Few replacements (founder is CEO, stable administrative support)	Few replacements (founder is CEO, stable administrative support)	Many replacements (CEO and CFO likely to be replaced, focus on survival)	Some replacements (moderate change in CEO and CFO likely to be replaced)
Top management compensation contracts	Stable (founder is CEO)	Stable (founder is CEO)	Stable (founder is CEO)	Unstable (immediate rebalancing of compensation contracts)	Relatively stable (regular rebalancing of compensation contracts)
Overall *capacity* for tax compliance	**Low**	**Medium-high**	**Low**	**Low**	**Medium-high**
Tax capacity entrepreneur	Low (focus on product/market)	Routinization of tax activities	New taxation issues arise	Shortage of administrative resources	Acquisition of administrative taxation resources
Auditor selection criteria	Based on personal ties with founder	Based on personal ties with founder	Based on personal ties with founder	Low cost auditor, few resources	Based on value added services (including tax expertise)
Enhanced relationship tax compliance programs	Not available	Hardly available (requires acquisition of tax and internal control expertise)	Not available (requires acquisition of tax and internal control expertise)	Not available (focus on short term survival)	Available in abundance (tax and internal control expertise available)
Expected overall tax compliance	**High**	**Relatively high**	**Relatively high**	**Relatively low**	**Relatively low**

Figure 1. Motivation and capacity for tax compliance in different firm development phases.

Knowledge regarding the changing nature of firms and entrepreneurs during the firm life course might provide implications for 'nudging' (Thaler and Sunstein, 2008) key actors to increase tax compliance (Walsh, 2012). Further empirical research should test whether the probability of non-compliance is indeed relatively high in the growth syndrome and accumulation phases in the life course and whether non-compliance is also higher due to particular characteristics of owner-managers, executives and other stakeholders in the firm.

The findings from the empirical studies may not be generalizable to other countries due to differences in the institutional setting specifically with regard to the tax system characteristics valid in the country where the study was performed. Detailed analyses of firms in certain countries that employ a specific tax regime may provide additional insights. Despite such limitations, our study is one of the few which offers insights into how tax compliance changes over the life time of the firm due to changes in the motivation and the capacity for tax compliance. Subsequent studies may test the validity of our framework providing an empirical test of our propositions. Alternative research methods could be used for these purposes. For example, case studies could provide insights in the trade-offs that individual entrepreneurs and/or firms make with regard to different tax compliance decisions, as well as evaluate the impact on different stakeholder groups. Another opportunity would be to follow a limited number of entrepreneurs and/or firms over a longer time period, and see how tax compliance for specific tax categories changes over time as the firm changes. Both survey methods to identify some of the internal determinants and archival methods for externally reported data, such as debt ratios or ownership data could provide the required data. Finally, another option would be to obtain anonymous data on both firms and the associated entrepreneur from the tax authorities, to investigate the trade-offs employed in specific tax regimes.

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Notes

1. Overall, tax compliance in the United States is about 87% according to Posner (2000), and 83% for households (Andreoni et al., 1998).
2. Going back to the work of Max Weber (1978), but also to the Biblical Mathew 22: 21 – 'Therefore render to Caesar the things that are Caesar's'.
3. The quality of the state, or formal taxation institutions in particular, is another important factor here, in the sense that clearly stated and well-sanctioned taxation rules and laws are also likely to increase the level of tax compliance (Van Kommer and Waris, 2011). This article assumes the existence of a high-quality state (like in the Scandinavian countries, The Netherlands, Germany). On a more micro level, but related to the macro level quality of the state, the taxpayer's perception of the fairness of her or his tax burden is also likely to affect heterogeneity in tax compliance (see evidence confirming this (Spicer and Becker, 1980), and disconfirming this relation (Webley, et al. 1991).
4. However, reputation can also involve instrumental rationalities, as the reputational costs of tax scandals can damage firms in many ways. HM Revenue & Customs (HMRC) (2006) also reports 'damage to business reputation' as one of the most important tax matters facing boards of directors.
5. Consequently, the amount of taxes paid in this phase is relatively limited.
6. This provides the company with the opportunity to start paying dividends to shareholders which in turn increases the importance of sound tax planning.

7. Some useful references that may serve as a starting point for comparing and contrasting tax systems that may affect tax compliance across firm life cycles include Harding (2013: 7–21, 29–30, 32–36 and 40–41); LeBlanc et al. (2013: 16–23; 24–28 and 33–37). In addition, the OECD (2009) report covers a broad range of small and medium-sized enterprise (SME) taxation issues, including possible effects of taxation on the creation and growth of SMEs, and considerations arising from a relatively high compliance burden.
8. As mentioned previously, whether entrepreneurs and/or shareholders indeed pay capital gains taxes depends upon the country in which they operate (see Harding, 2013).
9. There is a category of firms in the start-up phase, with founders who have from the first day of operations the intention to contribute to the hidden/illegal economy of a country (see e.g. Gottschalk, 2009), and that sense are very instrumental in their motivation for tax compliance.
10. For firms in this phase, often with negative financial results, compliance can be improved due to carry-back or forward of losses (see Pronk, 2004).
11. However, bankruptcy can also be used in an instrumental way, to socialize losses (see Akerlof and Romer, 1993).
12. There is some anecdotal evidence as well that high growth firms have pushed more or less illegal financial acts to far, which resulted in a sudden collapse of the firm's value (see World Online and Baan Company in 2000).
13. In this sense, experience with financial and taxation issues, leading to expertise in these issues, is much more important than the age of the entrepreneur per se.

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