



Tax Planning: Theory and Modeling

Saadia Kouroub^{1*}, Lahcen Oubdi²

^{1*,2} ENCG Agadir, Ibn Zohr University, Morocco

Corresponding Author: saadia.kouroub@edu.uiz.ac.ma¹⁾

Keywords : Tax Planning, Corporate Governance, Firm Value

Abstract:

The majority of taxpayers, whether individuals or corporations, seek to reduce their tax burden or to benefit from a certain tax saving. In this sense, taxpayers resort to various legal or even illegal tax planning practices. In this article, we seek to deepen the understanding of the concept of tax planning and to offer, to the various readers, new theoretical and empirical indicators to understand the motivations behind fiscally aggressive behavior. Indeed, after presenting the theoretical framework of the notion of tax planning, we will discuss the main theoretical and empirical sources that have attempted to model and estimate the extent of tax planning. At the end of our review of the theoretical and empirical literature, we can argue that the deterrence theory, which has dominated the earlier literature on tax planning, is insufficient to explain fiscally aggressive behavior, and that the modeling of tax planning practices depends to a large extent on the context of the estimated study and on the interpretations of tax laws.



Introduction

As the main objective of any business is increasingly focused on reducing the overall tax burden in order to maximise after-tax profits, there is a continuing interest in developing various tax planning approaches to achieve this objective. Thus, the issue of minimising tax liabilities is increasingly seen as a strategic axis in the efficient management of any business. Indeed, the tax factor is always considered in any decision making, including capital structure, dividend policies, financing and debt decisions, compensation policy and even risk management of a company ((Graham, 1996), (Graham, 2003), (Desai, 2002), (Desai & Dharmapala, 2006)). Hence the interest in studying the tax aggressiveness activities and their effect on the value of the firm.

The concept of tax planning is widely used to describe all activities and transactions designed to reduce tax liability ((Hanlon & Heitzman, 2010), (Wahab & Holland, 2012), (Dyreg, Hanlon, & Maydew, 2008), (Yee, Sapiei, & Abdullah, 2018)). Tax planning is the set of actions and decisions taken by the company, whether fiscally aggressive or not, that the company chooses to adopt in order to control its tax burden more effectively. (S. Chen et al., 2010) a point out that tax aggressiveness encompasses activities that are legal, or that may fall into the grey area, as well as activities that are illegal. Furthermore, (Bruce, Deskins, & Fox, 2007) define tax planning as a broad set of tax avoidance and evasion schemes. The latter authors also consider that tax planning often comes in response to variations in a country's internal tax policy or divergences in tax systems between different countries through practices that are often legal, but some may fall into a legal grey area or even constitute blatantly illegal tax avoidance methods such as underreporting taxable income or overestimating tax deductions.

The majority of previous studies consider tax planning in its broadest sense, as an activity that tends to reduce the company's tax burden, without bothering to distinguish it from other similar concepts or to explain the motivations behind the choice of such deviant tax behavior. Thus, this article constitutes a state of the art on the phenomenon of tax planning and its theoretical foundations. First, we clarify the notion of tax planning while trying to distinguish it from other similar concepts. Then, we identify the theories that explain the adoption of tax planning behavior. Then, we try to highlight one of the main tools for estimating the magnitude of this phenomenon, which is the effective tax rate (ETR), while presenting the framework for modeling this measure in relation to the different determinants of tax planning practices.

Research Method

In terms of methodology, it should be noted that we have used a qualitative approach to explore the taxpayer's decision-making process. Our qualitative approach consists of reviewing the existing literature by examining different documentary sources, such as books and theoretical and empirical articles from national and international journals. The role of this

approach is to do a deeper reading of the literature to detect insufficiently or poorly defined concepts to facilitate their empirical operationalization.

We contribute to the existing literature around the phenomenon of tax planning by addressing several gaps and limitations of previous research. To do so, we will try to confront the concept of tax planning with other similar concepts and then highlight behavioral and signal theory as a new angle to view the taxpayer's tax behavior, thus going beyond the model of (Allingham & Sandmo, 1972) which has been widely considered as a reference to explain the taxpayer's tax choices. In the following, we present models that tend to estimate tax planning among firms.

Result and Discussion

The concept of tax planning

In order to understand the concept of tax planning, it is important to briefly highlight the concepts that surround it, in particular the concept of tax avoidance, tax evasion, tax management and tax optimisation. As far as the notion of tax evasion and avoidance is concerned, it can be said that the two notions are so close that it is difficult to distinguish them based on the judicial criterion alone, because in the case of both deviant tax behaviours, the actors seek an undue advantage or evade a tax obligation, while exploiting an opportunity offered (absence of tax provisions or low control rates for example). Thus, it is the intentional element and the material element that must be taken into consideration to distinguish the evaders from those who proceed to tax avoidance, because an infringement of the tax law is not always a fraud as long as bad faith is not proven by the competent authority, and in this case it is a material error committed in good faith. Also, the absence of violation of the legal system does not mean that the act of evading tax is legitimate, because even if it is not contrary to the law, it is considered an abuse of the gaps in the tax law that can only aggravate the inequality of taxpayers. According to (Bazart, 2000), tax evasion is illegal, whereas tax avoidance is legal as much as skilful. Indeed, if we refer to the question of law, we can say that evasion is an infringement of what is already provided for by the legislator, whereas illegal tax avoidance is an infringement of a tax provision not yet provided for or approved by the legislator.

Also, there is a terminological incoherence between the concept of tax optimisation and tax avoidance. Tax optimisation seeks to take advantage of existing tax regulations to minimise the tax burden, whereas tax avoidance seeks to circumvent tax law through fictitious arrangements, generally using provisions relating to tax havens or transfer pricing (Pinteaux, 2017). According to (Boukobza, 1995), tax optimisation is a tax choice that aims to take advantage of the disparities in the various local and international tax laws, on condition that the tax choice adopted is neither artificial nor abusive, in order to avoid moving towards tax avoidance or evasion practices.

Moreover, this terminological incoherence also concerns the concept of tax optimisation and tax planning, which is further exacerbated by the translation of the vocabulary from one language to another. Indeed, "Tax Planning" in English means tax optimisation in French, whereas "planification fiscale" in French means tax management which is concerned with the tax consequences of any objective or act undertaken by the company. Thus, for French speakers, tax planning practices include, in addition to tax optimisation practices, other tax avoidance practices (legal or illegal), while focusing on reducing excessive tax or non-tax costs that weigh down the efficiency of the tax arrangement adopted. Thus, although tax optimisation is often applied in the international context, it is one of the tax planning practices that can be adapted by the company.

Referring to a multitude of previous works, including (Phillips, 2003), (Rego, 2003), (Ayers, Jiang, & Laplante, 2009), (Chen, Chen, Cheng, & Shevlin, 2010), (Hanlon & Heitzman, 2010), (Wahab & Holland, 2012), (Ftouhi, Ayed, & Zemzem, 2015), (Chavy, 2017), and (Balakrishnan, Blouin, & Guay, 2019), tax planning is treated as the set of practices tending to reduce the present value of tax payments and generally increases the after-tax rate of return of investors. And this has been confirmed by (Hanlon & Heitzman, 2010), who state that tax planning represents a continuum of tax avoidance strategies where perfectly legal activities are at one end and more aggressive activities are closer to the other end. Thus, it is a broad term that encompasses all practices that aim to reduce the company's tax burden, whether legal or illegal, ranging from tax optimisation to evasion. In the following diagram we try to show more explicitly the different tax planning behaviours with the distinguishing criteria from the theoretical literature:

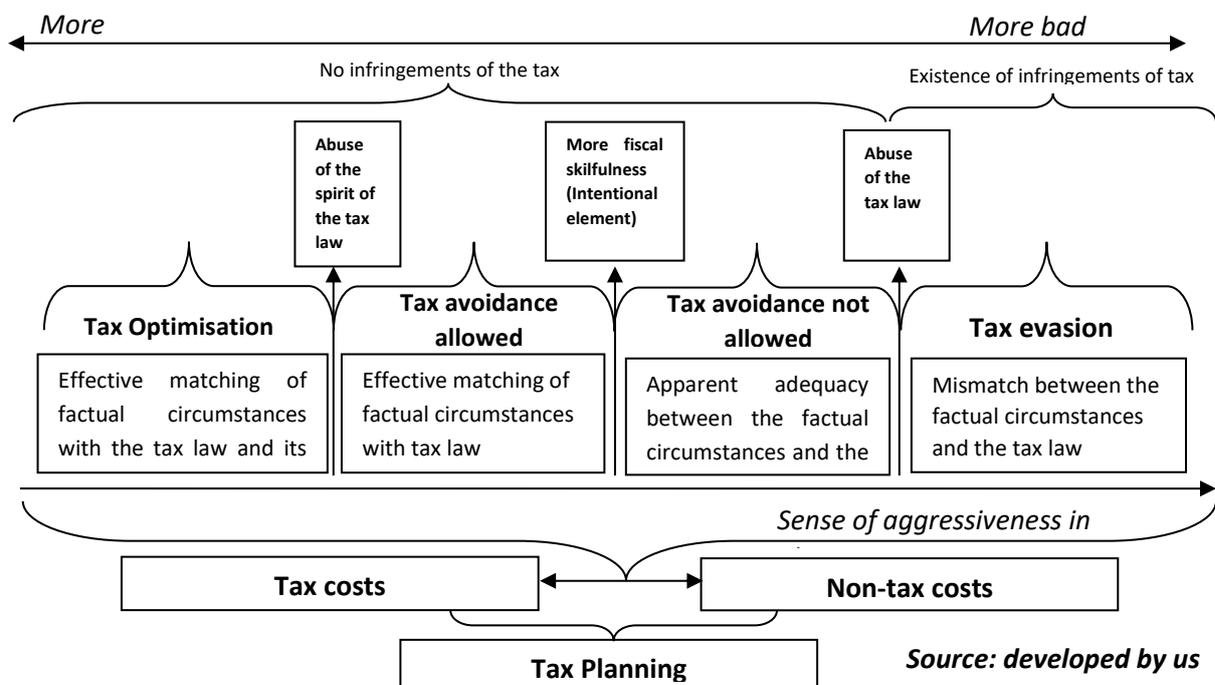


Figure 1 : Schematic representation of different tax planning behaviours

Explanatory theories of tax planning practices

Deterrence theory

The from the crime economy approach of (Becker, 1968) and from decision-making under uncertainty, as initiated in the work of (Arrow, 1996) and (Mossin, 1968). On the basis of these approaches, (Allingham & Sandmo, 1972) proposed an explanatory model of the taxpayer's decision to declare his annual taxable income. Indeed, the work of (Allingham & Sandmo, 1972) seeks to understand the taxpayer's decision process to comply or not with tax obligations. The model states that the taxpayer seeks to maximise the utility expectation of his income while exploiting the asymmetry of information existing between the taxpayer and the tax administration. Thus, remembering that the tax declaration decision is made under uncertainty, the individual is faced with two strategies; either he declares all his real income or he declares an income lower than his real income.

According to (Allingham & Sandmo, 1972), the choice of strategy is not trivial and requires a lot of thought on the part of the taxpayer. For the first strategy, the taxpayer does not fear the tax audit but his gain/utility may be lower than another taxpayer, who has the same level of income but has chosen the second strategy. For the choice of the second strategy, the taxpayer's gain depends on the probability of being detected by the tax administration: in case of non-detection, the taxpayer gains more than in the case of the choice of the first strategy but in case of detection the taxpayer's situation is much worse. To model the individual's behaviour, (Allingham & Sandmo, 1972) assume that the taxpayer chooses the income to be declared in such a way as to maximise his utility expectation $E(U)$ according to the following function:

$$E(U) = (1 - p)U(R - tX) + pU(R - tX - \pi(R - X))$$

With the formal simplification of the taxpayer's situation, the model (Allingham & Sandmo, 1972) is based on the following conditions:

- The taxpayer's behaviour is conform to the Von Neumann-Morgenstern axioms for behaviour under uncertainty,
- Income is the only argument for his cardinal utility $U(R)$,
- The marginal utility will be assumed to be everywhere positive and strictly decreasing, so that the individual is well warned about risks.
- The real income, (R), is an exogenous data known by the taxpayer, but not by the tax collector (the tax administration).
- The tax is levied at a constant tax rate, (t),
- (X) is the declared income, which is the dependent variable of the taxpayer's decision,
- The taxpayer is likely to be subject to a tax audit that reveals the exact amount of actual income with probability (p),
- If the taxpayer is subjected to a tax audit, he will have to pay the tax applied to (R-X) with a penalty of (π) which is higher than the rate (t).

In this model, taxpayers are in favour of a tax reduction if the expected utility of tax planning practices is higher than the risk of being discovered and penalised by the authorities. Thus, the authors look for the values that the parameters of this function can take to reach a maximum solution. That is, to deduce how the level of income X , to be declared, varies according to the variation of the tax parameters (R , t , π and p) while assuming that taxpayers are risk averse. The following table summarises the conclusions of (Allingham & Sandmo, 1972):

Table 1: Summary of the results of the (Allingham & Sandmo, 1972) model

Parameter used	Nature of effect on taxpayer's tax compliance
Real income	The sign depends on the relative risk aversion of the taxpayer; when this aversion is increasing, constant or decreasing; the share of declared income increases stagnates or decreases, respectively, according to each evolution. This means that the higher the income the less avoidance is envisaged.
Tax rate	The substitution effect is negative which means that an increase in the tax rate makes tax avoidance more profitable in terms of profit margin. The substitution effect is that any increase in the tax rate causes the taxpayer to reward the increase in fraudulent practices as long as the penalty rate remains unchanged. The income effect has a positive sign which means that a higher tax rate makes the taxpayer (over time) less wealthy. This affects his risk aversion which discourages his aggressive tax behaviour.
The penalty	The penalty on concealed income has a positive effect on reportable income, which means that an increase in the penalty rate leads to an increase in the reported income.
The probability of detection	An increase in the probability of detection has an incentive effect on taxpayers to comply with tax obligations.

Source: Developed by us based on (Allingham & Sandmo, 1972) results

In summary, the model of (Allingham & Sandmo, 1972) does not give very precise results on the impact of the variation of real income and the tax rate on the level of tax compliance of taxpayers. However, it does give a very clear idea of the effect of the tax penalty parameter and the probability of detection on the taxpayer's fraudulent behaviour. The (Allingham & Sandmo, 1972) model points out that the last two parameters, which are of great importance in defining tax policies, are substitutable. Thus, it is a deterrence model that treats the taxpayer as a rational and calculating agent who is averse to the risk of making losses due to state tax enforcement measures.

Despite the simplicity of this theory due to the ignorance of a set of elements that may enter into the taxpayer's decision making process, the model of (Allingham & Sandmo, 1972) is considered as a reference for understanding aggressive tax behaviour. It should be noted that this theory has been evolving significantly over time, thanks to the contributions of several

theoretical, empirical and econometric studies such as those of (Yitzhaki, 1974), (Clotfelter, 1983), (Alm, Jackson, & McKee, 1992), (Friedland, Maital, & Rutenberg, 1978), (Koskela, 1983), (Witte & Woodbury, 1985), (Dubin & Wilde, 1988), (Beron, Tauchen, & Witte, 1988), (Beron et al., 1988), (Feinstein, 1991), (Graetz & Wilde, 1985), (Pyle, 1991), (Alm, McClelland, & Schulze, 1992), (Elffers, 2000), (Frey & Feld, 2002), (Frey, 2003) and (Torgler, 2002).

Behavioural theory

Human motivation to engage in deviant tax behaviour is not limited to monetary incentives, (Frey, 1997b) considers that people do things out of intrinsic motivation when they simply enjoy doing them. In this sense, experimental studies have found it necessary to go beyond the theoretical concepts of simple traditional disincentives and argue for the concept of tax morale. The latter has been considered as the intrinsic motivation that drives economic agents to comply with taxes. Hence the importance of behavioural theory in explaining tax compliance (or non-compliance) (see (Schwartz & Orleans, 1967), (Lewis, 1982), (Alm, McClelland, et al., 1992), (Lawler, 1998), (Frey, 1997b), (Frey, 2003), (Frey & Feld, 2002), (Devos, 2013), (Frey, 1997a), (Kirchler, 2007) as an example.) This theory is based on the premise that, under real conditions, economic actors have incomplete rationality, which is the result of the influence of several factors: sociological, psychological, and neurological and others.

In order to understand the inclination of agents to engage in tax planning, we refer to the work of (Elffers, 2000) who has explained, away from coercive tax measures, the factors intrinsic to the human being and which push him to adopt a certain tax behaviour. (Elffers, 2000) considers that the decision to evade taxes goes through a process defined in three stages:

Willing :

Based on previous studies, (Elffers, 2000) explains that some taxpayers are predisposed to comply with their tax obligations even in the face of weak tax enforcement measures (penalties and audit probabilities). Thus, (Elffers, 2000) refers to the work of (Pyle, 1991) and (Long & Swingen, 1991), who were able to demonstrate that there are taxpayers who do not seek to evade tax at all, to conclude that the strong desire to evade tax is the first step in the process of deciding whether or not to engage in tax planning practices.

Being able :

According to (Elffers, 2000) « Not everybody feeling an inclination to dodge his taxes, is able to transfer his intention into deeds, at least not in a way that is not immediately and certainly spotted by the tax inspector ». The majority of taxpayers do not have the knowledge or resources to avoid taxes. In this sense, (Elffers, 2000) makes a comparison between employees, who cannot evade taxes easily as their income is managed by employers, and the self-employed, who have more possibilities to discreetly overstate deductions or underreport

their income. Thus, (Elffers, 2000) suggests that intentions to evade taxes do not always convert into action.

Daring :

Taxpayers, who are willing and able to evade tax payments, face the final stage of the tax avoidance decision process, which is to act or refrain from acting after all. (Elffers, 2000) states that this is the stage where standard deterrence theory comes into play and where taxpayers become more rational in assessing the expected value of tax manipulation practices.

According to the stages outlined by (Elffers, 2000), traditional deterrence theory is reduced in the last stage of the tax planning decision process which focuses on monetary value. Whereas, the early stages reflect social (taxpayer reputation) and moral (guilt) norms. In the same context, (Dell'Anno, 2009) shows that deviant tax behaviour can be largely explained by taxpayer morale and that this morale depends on taxpayers' intrinsic attitudes towards honesty, social stigma and the taxpayer's perception of the effectiveness of overall policy decisions.

Signal theory

Emerging from the observational sciences, signal theory has been the basis for the development of many theories, hypotheses and models in the field of business management. The first writings to introduce the concept of signaling into organisational theories were by (Spence, 1973), (Ross, 1977) and (Leland & Pyle, 1977). Subsequently, many authors have taken up the ideas of signal theory from the exact sciences to address certain issues in several management fields; such as the field of employment ((Forbes, 1987), (Spence, 1973), (Rosenbaum, 1979), (Rynes, 1989), (Rynes, Bretz Jr, & Gerhart, 1991), (Ehrhart & Ziegert, 2005), (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005), etc.) and corporate finance ((Ross, 1977), (Bhattacharya, 1979), (Marie-Jeanne, 1999), (Certo, 2003) as examples).

Before analysing the choice of tax behaviour in the light of signal theory, we ask about the role of social norms in reinforcing tax compliance among citizens. In this sense, (Posner, 2000) criticizes the standard economic model, which states that people violate a law if the benefit is greater than the expected penalty, and considers that the tendency to pay taxes is explained by the fact that people obey a social norm, probably a norm of paying taxes or a more general norm of law-abiding behaviour. According to (Alm et al., 1999), a social norm thus represents a pattern of behaviour that is judged similarly by others and is thus supported in part by social approval or disapproval. Thus, a social norm is an acceptable way of behaving that prevails in a society, and is therefore considered a reference and is bound to be adopted by the majority of individuals. Thus, (Posner, 2000) agrees with (Alm, McClelland, & Schulze, 1999) that individuals will comply and pay their taxes as long as they believe that compliance is a social norm. Also, (Polinsky & Shavell, 2000) stresses that social norms influence the behaviour of individuals, due to their role as a substitute and complement to formal laws. In

this sense, signal theory focuses on the signals that a tax evader can send in his relationship with other economic actors, in case of detection, and the signals that tax authorities can transmit to economic actors.

With regard to the signals that can be transmitted between economic actors, it should be noted that an economic agent has an interest in adopting socially accepted behaviour (a social norm) to avoid the costs of potential social exclusion. (Alm et al., 1999) states that an individual chooses his or her behaviour based on perceptions of how others will behave and how others will judge his or her actions. Referring to the advances of (Polinsky & Shavell, 2000), which state that an offender can suffer internal sanctions (guilt, remorse), external, extra-legal social sanctions (gossip, ostracism) or even punishment for violating social norms, it is easy to understand that there are means, other than monetary sanctions, to combat deviant fiscal behaviour. It is the psychic and social state of the actor of the social offence that is often influenced by the perception of himself or herself by those around him or her. Also, (Posner, 2000) argues that when the detection of tax violation is so infrequent and deviant behaviour is qualified as a crime, the most effective sanction is not simply tax penalisation, but that if one is detected it becomes meticulously avoided. In other words, the way society treats wrongdoers in tax terms, serves to send signals to other taxpayers to challenge their beliefs about tax honesty.

On the role of signals from tax authorities in strengthening tax compliance. It should be noted that when a taxpayer, having undergone a tax audit, shares favourable opinions on the strength of the tax audit mechanisms, he or she sends signals to other taxpayers to prevent them from adopting dishonest tax practices. One of the means used by the government to strengthen the credibility of these state bodies is the tax audit, which is no longer treated as a tax deterrent, but as a sign to encourage tax compliance. Faced with a bilateral information asymmetry between the taxpayer and the tax administration, (Kotowski, Weisbach, & Zeckhauser, 2014) consider that the taxpayer should be informed about the capacity of audit and tax control offices to catch and sanction cheaters. In this sense, the latter authors explain that, as long as a wide range of tax enforcement strategies are based on self-reporting mechanisms by agents and auditing of part of the returns by the regulatory office, agents must be encouraged to report accurately. And to achieve this, they must be made aware (through direct messages or signals) that inaccurate reporting is likely to be detected and sanctioned. Also, (Aytkhozhina & Miller, 2019) linked credibility, as presented by (Knack & Keefer, 1997), to tax audit as a means of enhancing it and pointed out that the high level of efficiency of tax audit bodies is one of the signals sent by the government to demonstrate its power to deal with deviant tax behaviour. Indeed, even at great cost, strong audit offices may be able to signal their capabilities, and that by imitating strong offices, even weak offices can induce tax compliance (Kotowski et al., 2014). Thus, the use of signals by the government, such as its reputation in terms of tax control, cannot be ignored as a means of enhancing citizens' tax compliance.

The estimation of the tax planning of a company using the ETR

The Effective Tax Rate (ETR) reflects, in a sense, the ability of the company to reduce its tax liabilities relative to its gross profit. (Rego, 2003) considers that the ETR, understood as the ratio of current taxes to pre-tax accounting profit, is the best indicator in this respect. (Slemrod, 2004) points out that shareholders can refer to the ETR to control managers, assuming that any increase in this rate would have a negative impact on share value. In this sense, it is considered essential to choose the taxes to be included in the numerator of this ratio and the revenues to be used in the denominator in order to draw conclusions about the level of tax planning measured. Summarising the existing literature on the different measures of the ETR, we note that the main measures of the ETR are the studies of (Zimmerman, 1983), (Porcano, 1986), (Stickney & McGee, 1982) and (Shevlin, 1987).

Table 2: Summary table of the main ETR measures

<i>Author</i>	<i>ETR initial measures from previous research</i>
(Zimmerman, 1983)	$ETR = \frac{\text{Total tax Expense} - \Delta \text{ in Deferred Tax Liability and ITC}}{\text{Operating Cash Flow}}$
(Porcano, 1986)	$ETR = \frac{\text{Current federal tax expense}}{\text{Pretax Book Income} - \text{Equity Income (Loss) from Unconsolidated Subsidiaries} + \text{Income (Loss) from Minority Interests}}$
(Stickney & McGee, 1982)	$ETR = \frac{\text{Total tax expense} - \text{deferred tax expense}}{\text{Pretax Book Income} - \left(\frac{\text{deferred tax expense}}{\text{Statutory marginal tax rate}} \right)}$
(Shevlin, 1987)	$ETR = \frac{\text{Total tax expense} - \Delta \text{ in Deferred Tax Liability}}{\text{Pretax Income} - \left(\frac{\Delta \text{ in Deferred Tax Liability}}{\text{Statutory marginal tax rate}} \right)}$

Source: according to the literature review

Following the studies that initiated the calculation of the ETR, authors ((Lazar, 2014), (Vandenbussche, Crabbé, & Janssen, 2005) (Derashid & Zhang, 2003), (Kim & Limpaphayom, 1998), (Vandenbussche et al., 2005), (Janssen, 2005), (Cao & Cui, 2017), etc.) have further developed these measures using different definitions of taxes used as the tax burden and income chosen as the basis of calculation. This variation in the choice of the numerator and denominator components of the ETR ratio comes from the research context and the objectives sought by each author.

The first modelling of tax planning was done by (Zimmerman, 1983), (Omer, Molloy, & Ziebart, 1993), (Porcano, 1986) and (P. J. Wilkie & Limberg, 1990) who tried to study the link between firm size, as a firm-specific characteristic, and its ETR. Other studies have tried

to broaden the range of firm-specific characteristics (to include, for example, industry, capital intensity, leverage, profitability, etc.) and to establish their link with the variability of the ETR across firms; (Kern & Morris, 1992), (Gupta & Newberry, 1997), (K. A. Kim & Limpaphayom, 1998), (Holland, 1998), (Nicodème, 2001), (Bauman & Shaw, 2005) and (Dyreng, Hanlon, & Maydew, 2010) as examples. In the majority of previous studies that have investigated the relationship between the ETR and firm-specific characteristics, the authors use the logic of the effect of tax deductibility on the effective tax burden. As an indication, a negative association between the ETR and leverage, depreciation and R&D expenditure is due, respectively, to the tax deductibility of interest expenses, depreciation allowances and direct expenditure on the R&D function within the firm. Subsequently, and in view of the multitude of enterprise characteristics that can impact on the ETR, the proposal of a modelling framework to capture these characteristics has been necessary.

To structure the discussion on scientific modelling of tax planning, we start with the modelling proposed by (P. Wilkie, 1988) who developed the notion of tax preferences. Based on the early work on measuring the ETR ((King & Fullerton, 1983), (Zimmerman, 1983), (Porcano, 1986), (Stickney & McGee, 1982), (Shevlin, 1987) and (Joint Committee on Taxation (JCT), 1983), who measured corporate ETR as the ratio of tax expense (I_i) to pre-tax book income (R_i^{book}), (P. Wilkie, 1988) deduced that ETR can be rewritten by the following formula :

$$ETR_i = \left(1 - \frac{TP_i}{R_i^{book}}\right) * STR \quad (1)$$

To arrive at this formula, it is necessary to return to the concept of the tax burden which is equal to the taxable income multiplied by the statutory tax rate : $I_{in} = STR_{in} * R_{in}^{taxable}$. with ; I_{in} : The tax due from an entity i in a year n , STR_{in} : The statutory tax rate, $R_{in}^{taxable}$: The taxable income of entity i earned in period n .

This is equivalent to writing the ETR as follows: $ETR_i = \frac{R_i^{taxable}}{R_i^{book}} * STR$. Building on this definition of ETR, (P. Wilkie, 1988) introduced the concept of tax preferences (TP) which is defined as the difference (temporary and permanent) between pre-tax book income and taxable income. Thus, tax preferences represent the collective tax incentives accorded by the governments of the various countries in which the firm operates. Taking into consideration the concept of tax preference $TP_i = R_i^{book} - R_i^{taxable}$, we rewrite the previous equation as follows: $ETR_i = \frac{(R_i^{book} - TP_i)}{R_i^{book}} * STR$.

This equation (1) illustrates the categories of determinants that explain the variation in the tax burden across firms. These are differences between firms in accounting and financial income (R_i^{book}), tax preferences (TP), and changes in statutory tax rates (STR). Through this modelling, (P. Wilkie, 1988) challenged the reduction of explanations for differences in ETR to differences in inter-sectoral and inter-temporal tax benefits. Because, this has consistently led to judgements about the inefficiency and inequity of the tax system. Indeed, firms with high ETR are not necessarily those with low tax preferences, but may be

those with rising revenues. Indeed, the empirical results of (P. Wilkie, 1988) suggest that differences in tax preferences are only one factor among others in determining the cross-sectional, inter-temporal and intra-industry variability of the firm's ETR.

Following (P. Wilkie, 1988), (Feeny, Harris, & Gillman, 2002) consider that the difference between the ETR and the STR is due to reconciliation items, which include tax shields, credits and rebates. Furthermore, in their attempts to explain the ETR of large Australian firms, (Feeny et al., 2002) refer to the failure to take into account the statutory rate of corporation tax (STR) in the analysis of the ETR as a limitation of the previous literature. Thus, it is necessary to consider the STR in the analytical equations and interpretation of the ETR to avoid basing misspecified models. According (Harris & Feeny, 2003), parameter estimates of a model will be biased to the extent that they suffer from omitted variables, in case the statutory tax rate is not taken into account in samples where the statutory rate has changed over time. And even in cases where the statutory rate remains unchanged over the sample period considered, the relationship between the estimated constant and the statutory rate must be taken into account. For a mathematical schematic, we note that (Feeny et al., 2002) consider the tax burden, referred to by (P. Wilkie, 1988), as a gross tax liability and consider that to obtain the net tax burden (I_{in}^{net}), one must subtract, from the gross tax burden, any appropriate tax credits or rebates, and since taxable income is obtained by reducing gross (accounting) income by the tax deductions allowed by law (the tax preferences referred to in (P. Wilkie, 1988)), the expression for the tax burden is written as follows:

$$I_{in}^{net} = STR_{in} * R_{in}^{net} - \sum_{q=1}^Q CR_{in}^Q$$

$$I_{in}^{net} = STR_{in} * (R_{in}^{gross} - \sum_{j=1}^J D_{in}^j) - \sum_{q=1}^Q CR_{in}^Q \quad (2)$$

with :

I_{in}^{net} : The net tax charge is obtained by reducing the tax credits and reductions directly from the gross tax,

R_{in}^{gross} : Total gross income,

R_{in}^{net} : Total net income (taxable profit) obtained by subtracting tax deductions from gross income,

D_{in}^j : Tax deductions allowed by law (any tax shields and exemptions) that are to be deducted before the tax rate is applied,

CR_{in}^Q : Tax credits and rebates,

Where there are $j=1, \dots, J$ potential number of tax shields,

Where there are $q=1, \dots, Q$ possible number of tax credits and rebates ($CR_{in}^Q \geq 0, \forall q, i$ and n).

Thus, it is possible to attribute to the ETR measure ($\frac{I_{in}^{net}}{R_{in}^{gross}}$), the function as follows:

$$ETR_{in} = STR_{in} - \frac{1}{R_{in}^{book}} * STR * \sum_{j=1}^J D_{in}^j - \frac{1}{R_{in}^{book}} \sum_{q=1}^Q CR_{in}^Q \quad (3)$$

The last equation (3), allows us to clearly see the link between the ETR and the STR. This model was confirmed by (Harris & Feeny, 2003) who concluded that in the absence of tax deduction, tax credits and rebates; the ETR simply becomes equal to the STR.

Based on the model of (P. Wilkie, 1988) and (Feeny et al., 2002), and by taking into consideration the particular characteristics of China's tax environment; (Cao & Cui, 2017) developed a theoretical framework, including in addition to the statutory tax rate (STR) introduced by (Feeny et al., 2002) and tax preferences, originally discussed by (P. Wilkie, 1988); the notion of the preferential tax rate as one of the corporate tax incentives that characterize the Chinese tax system. According to (Cao & Cui, 2017), tax preference measures are composed of two elements which are: preferential tax rate (PTR) and book-tax differences. Thus, the preferential tax equation ($TF_i = R_i^{book} - R_i^{taxable}$) of (P. Wilkie, 1988) was rewritten by (Cao & Cui, 2017) as: $PF_{it} = PTR * R_{it}^{taxable} + (R_{it}^{book} - R_{it}^{taxable})$ with the preferential tax rate (PTR) is the difference between the statutory tax rate, which is the highest, and the current statutory tax rate ($TPI = STR_{higher} - STR_{current}$) applied to taxable income. Thus, using equation (1) from (Wilkie, 1988), which can be rewritten as follows:

$$ETR_i = STR - \frac{TP_i}{R_i^{book}} * STR$$

And isolating the preferential taxation ($PTR * R_{it}^{book}$) from TP_i we get:

$$ETR_{it} = STR - \frac{STR * \sum_{n=1}^n TP_{it}^n}{R_{it}^{book}} - \frac{PTR_{it} * R_{it}^{Taxable}}{R_{it}^{book}} \quad (4)$$

The last equation explains the determinants of the ETR, which are the statutory tax rate and the preferential tax regime (without preferential taxation; the ETR is equal to the STR.), which includes the preferential tax rate and book-tax differences.

To fully grasp the scientific formulation of the relationship between the ETR and these determinants, we return to the simplified modeling terms of (Harris & Feeny, 2003), while checking their correspondences with that of (Cao & Cui, 2017). Indeed, a review of the main contributions of the (Harris & Feeny, 2003) allowed us to categorize the explanatory variables of the variation of the ETR into two main categories, determinants related to the observed heterogeneity and those related to the unobserved heterogeneity. The first are the various observed firm-specific characteristics and the second are the individual or unobserved effects of that firm. According to (Harris & Feeny, 2003), all of these variables are related in the form of an estimable empirical model that often takes the following form:

$$ETR_{in} = STR_{in} + \alpha X_{in} + Y_i + \epsilon_{in} \quad (5)$$

with ;

ETR_{in} : Measures the actual tax burden borne by an entity i at time n

STR_{in} : It represents the mute effect of time and it is approximated by the statutory tax rate provided by the law for a particular period of time n .

X_{in} : Represents the explanatory variables of the ETR which can be the tax preference variables (the PTR and book-tax differences) and control variables. The tax preference terms are identical to those described in equation (3) (and rewritten in equation (4)) and the control variables are used to capture firm-specific characteristics that might bias the results of these regressions.

Y_i : Represents the individual effect of each entity, i.e. the heterogeneity in the strategies of each firm to move the ETR away from the STR. It is a variable that was introduced by (Feeny et al., 2002) and represents the unobserved characteristics (the unobserved heterogeneity) who may well represent in part the effects of firm-specific tax and management strategies.

ε_{in} : est le terme de perturbation vu que l'équation est susceptible de ne pas être exact.

In short, the old approaches, which often reason in terms of the effect of the tax deductibility of certain expenses on the firm's effective tax burden, reveal a difficulty in limiting these expenses. Indeed, although the authors of the old literature have tried to limit the factors impacting the firm's ETR; to the tax benefits related to the firm's own characteristics (size, sector of activity, region of location, interest on debts, research and development expenses, etc.) and tax management practices (establishment of subsidiaries, foreign operations, existence of coordination centers, etc.), The variation of tax legislation from one country to another and the diversity of interpretations of its provisions, let us deduce on the large number of factors that can greatly affect the tax burden of the company.

In this sense, the model developed by (Cao & Cui, 2017) and (Harris & Feeny, 2003) offers a new way of examining the determinants of the ETR by limiting the main determinants of the ETR in the characteristics of the tax regime to which it is subject of entity object of the study. The interest of this model, which is represented in the last equation (4), lies in the incorporation of the postulates of tax preference regimes, the consideration of the reconciliation between book and tax income and the cancellation of the effect of the variation of income on the variability of the ETR (by scaling the variables of the equation by book income). Despite the limitations of this model, which are discussed in (Cao & Cui, 2017), and which lie, in particular, in the difficulty of identifying all the book and tax differences, given that these differences vary according to the accounting policy of the firm and the book and tax standards recognized within a country, it remains the most reasonable and easy-to-use model that allows us to go beyond the limits of the logic of the effect of the deductibility of expenses on taxes and takes into account, in a direct way, all the characteristics of the tax system of a given country (in particular the different tax incentives granted to companies).

Conclusion

In this paper, we have attempted to shed light on the notion of tax planning through a rich theoretical approach. Thus, we have based our analysis on the postulates of tax deterrence theory, behavioral theory and signal theory, while analyzing a set of theoretical and empirical studies, which have attempted to estimate and then modelizing the tax planning.

From this synthesis of the literature, we conclude that the human being cannot be reduced to a calculator because he is subject to a set of influencing elements (psychological, social, institutional), hence the complexity of his decision-making process. Thus, the behavioral theory and the signal theory constitute an adequate framework for understanding the attitude of taxpayers towards tax planning. Indeed, these theories bring together a set of influences that can lead the taxpayer (individual or company) to adopt values, beliefs and attitudes that may be in favour of/against tax compliance.

Also, we can easily deduce that correct interpretations of the ETR serve as signals to predict good tax management and current or future firm performance. In his study, (Lev & Thiagarajan, 1993) points out that an unusual decline in ETR is, in general, considered a negative signal regarding earnings persistence. In addition, (Rego, 2003) states that “Firms that consistently report relatively low worldwide current taxes payable (that is, low ETRs) have greater after-tax cash flows. These greater after-tax cash flows should be reflected in analysts’ earnings forecasts and investment recommendations and be impounded in security prices”. This means that the stock market views low-ETR companies as having better cost control than their high-ETR counterparts. It should be noted, however, that measures of ETR do not distinguish between tax-advantaged activities (specified by law), tax avoidance activities specifically undertaken to reduce taxes, and those undertaken to target the tax benefits of lobbying activities (Hanlon & Heitzman, 2010). In conclusion, it should be noted that changes in ETR are strong predictors of changes in future firm performance, if properly interpreted by users outside the firm, within a framework that takes into account the circumstances of all the elements that may influence its estimation.

References

- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3_4), 323_338.
- Alm, J., Jackson, B. R., & McKee, M. (1992). Estimating the determinants of taxpayer compliance with experimental data. *National Tax Journal*, 107_114.
- Alm, J., McClelland, G. H., & Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, 48(1), 21_38. [https://doi.org/https://doi.org/10.1016/0047-2727\(92\)90040-M](https://doi.org/https://doi.org/10.1016/0047-2727(92)90040-M).
- Alm, J., McClelland, G. H., & Schulze, W. D. (1999). Changing the social norm of tax compliance by voting. *Kyklos*, 52(2), 141_171. <https://doi.org/https://doi.org/10.1111/j.1467-6435.1999.tb01440.x>.
- Arrow, K. J. (1996). The theory of risk-bearing: small and great risks. *Journal of Risk and Uncertainty*, 12(2), 103_111.
- Ayers, B. C., Jiang, J., & Laplante, S. K. (2009). Taxable income as a performance measure: The effects of tax planning and earnings quality. *Contemporary Accounting Research*, 26(1), 15_54. <https://doi.org/https://doi.org/10.1506/car.26.1.1>.
- Aytkhozhina, G., & Miller, A. (2019). State tax control strategies: Theoretical aspects.

Contaduría y Administración, 63(2), 25.

- Balakrishnan, K., Blouin, J. L., & Guay, W. R. (2019). Tax aggressiveness and corporate transparency. *The Accounting Review*, 94(1), 45_69.
- Bazart, C. (2000). La fraude fiscale: modélisation du face à face Etat-Contribuables (Université Montpellier). Retrieved from <https://www.researchgate.net>.
- Beron, K. J., Tauchen, H. V., & Witte, A. D. (1988). A structural equation model for tax compliance and auditing. National Bureau of Economic Research Cambridge, Mass., USA.
- Bhattacharya, S. (1979). Imperfect information, dividend policy, and" the bird in the hand" fallacy. *The Bell Journal of Economics*, 259_270.
- Boukobza, F. (1995). Optimisation fiscale et localisation. *Revue Internationale de Droit Comparé*, 47(2), 385_402.
- Bruce, D., Deskins, J., & Fox, W. F. (2007). On the extent, growth, and efficiency consequences of state business tax planning. *Taxing Corporate Income in the 21st Century*, 226, 253_254.
- Cao, J., & Cui, Y. (2017). An alternative view on determinants of the effective tax rate: Evidence from Chinese listed companies. *Emerging Markets Finance and Trade*, 53(5), 1001_1014. <https://doi.org/DOI: 10.1080/1540496X.2016.1256113>.
- Certo, S. T. (2003). Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review*, 28(3), 432_446.
- Chapman, D. S., Uggerslev, K. L., Carroll, S. A., Piasentin, K. A., & Jones, D. A. (2005). Applicant attraction to organizations and job choice: a meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology*, 90(5), 928_944.
- Chavy, P. (2017). Planification fiscale et réputation de la firme: quelles réalités? *Revue de Logisorganisation Responsable*, 12(1), 53_65.
- Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics*, 95(1), 41_61.
- Clotfelter, C. T. (1983). Tax evasion and tax rates: An analysis of individual returns. *The Review of Economics and Statistics*, 65, 363_373.
- Dell'Anno, R. (2009). Tax evasion, tax morale and policy maker's effectiveness. *Journal of Socio-Economics*, 38(6), 988_997. <https://doi.org/10.1016/j.socec.2009.06.005>.
- Derashid, C., & Zhang, H. (2003). Effective tax rates and the "industrial policy" hypothesis: evidence from Malaysia. *Journal of International Accounting, Auditing and Taxation*, 12(1), 45_62.
- Desai, M. A. (2002). The corporate profit base, tax sheltering activity, and the changing nature of employee compensation. In National Bureau of Economic Research Working Paper Series, No. 8866. Retrieved from National Bureau of Economic Research Cambridge, Mass., USA website: <http://www.nber.org/papers/w8866>.
- Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives.

- Journal of Financial Economics, 79(1), 145_179.
<https://doi.org/10.1016/J.JFINECO.2005.02.002>
- Devos, K. (2013). Factors influencing individual taxpayer compliance behaviour. Retrieved from <https://www.worldcat.org/title/factors-influencing-individual-taxpayer-compliance-behaviour>.
- Dubin, J. A., & Wilde, L. L. (1988). An empirical analysis of federal income tax auditing and compliance. *National Tax Journal*, 61_74.
- Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-Run Corporate Tax Avoidance. *The Accounting Review*, 83(1), 61_82.
- Ehrhart, K. H., & Ziegert, J. C. (2005). Why are individuals attracted to organizations? *Journal of Management*, 31(6), 901_919.
- Elffers, H. (2000). *But taxpayers do cooperate. Cooperation in Modern Society. Promoting the Welfare of Communities, States and Organizations*. London: Routledge, 184_194.
- Feeny, S., Harris, M. N., & Gillman, M. (2002). Corporate & Statutory Tax Rates. SSRN Electronic Journal. <https://doi.org/https://doi.org/10.2139/ssrn.309940>.
- Feinstein, J. S. (1991). An econometric analysis of income tax evasion and its detection. *The RAND Journal of Economics*, 14_35.
- Forbes, J. B. (1987). Early intraorganizational mobility: Patterns and influences. *Academy of Management Journal*, 30(1), 110_125.
- Frey, B. S. (1997a). A constitution for knaves crowds out civic virtues. *The Economic Journal*, 107(443), 1043_1053. <https://doi.org/https://doi.org/10.1111/j.1468-0297.1997.tb00006.x>.
- Frey, B. S. (1997b). *Not just for the money: An Economic Theory of Personal Motivation*. Cheltenham, UK and Lyme: USA: Edward Elgar.
- Frey, B. S. (2003). Deterrence and tax morale in the European Union. *European Review*, 11(3), 385_406. <https://doi.org/https://doi.org/10.1017/S1062798703000346>.
- Frey, B. S., & Feld, L. P. (2002). Deterrence and morale in taxation: An empirical analysis. Available at SSRN 341380. <https://doi.org/http://dx.doi.org/10.2139/ssrn.341380>.
- Friedland, N., Maital, S., & Rutenberg, A. (1978). A simulation study of income tax evasion. *Journal of Public Economics*, 10(1), 107_116.
- Ftouhi, K., Ayed, A., & Zemzem, A. (2015). Tax planning and firm value: evidence from European companies. *International Journal Economics & Strategic Management of Business Process*, 4(1), 73_78.
- Graetz, M. J., & Wilde, L. L. (1985). The economics of tax compliance: fact and fantasy. *National Tax Journal*, 38(3), 355_363.
- Graham, J. R. (1996). Proxies for the corporate marginal tax rate. *Journal of Financial Economics*, 42(2), 187_221.
- Graham, J. R. (2003). Taxes and corporate finance: A review. *The Review of Financial Studies*,

16(4), 1075_1129.

- Gupta, S., & Newberry, K. (1997). Determinants of the variability in corporate effective tax rates: Evidence from longitudinal data. *Journal of Accounting and Public Policy*, 16(1), 1_34. [https://doi.org/https://doi.org/10.1016/S0278-4254\(96\)00055-5](https://doi.org/https://doi.org/10.1016/S0278-4254(96)00055-5).
- Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, 50(2_3), 127_178.
- Harris, M. N., & Feeny, S. (2003). Habit persistence in effective tax rates. *Applied Economics*, 35(8), 951_958.
- Janssen, B. (2005). Corporate effective tax rates in the netherlands. *De Economist*, 153(1), 47_66. <https://doi.org/10.1007/s10645-004-7127-y>.
- Joint Committee on Taxation (JCT). (1983). Study of 1983 effective tax rates of selected large US corporations. Retrieved from <https://www.jct.gov/publications.html?func=select&id=40>.
- Kim, K. A., & Limpaphayom, P. (1998). Taxes and Firm Size in Pacific-Basin Emerging Economies. *Journal of International Accounting, Auditing and Taxation*, 7(1), 47_68. [https://doi.org/https://doi.org/10.1016/S1061-9518\(98\)90005-2](https://doi.org/https://doi.org/10.1016/S1061-9518(98)90005-2).
- King, M., & Fullerton, D. (1983). The taxation of income from capital: A comparative study of the United States, the United Kingdom, Sweden and Germany (No. 1058). <https://doi.org/10.3386/w1058>.
- Kirchler, E. (2007). The economic psychology of tax behaviour. Retrieved from https://www.worldcat.org/title/economic-psychology-of-tax-behaviour/oclc/706792411&referer=brief_results.
- Knack, S., & Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 112(4), 1251_1288.
- Koskela, E. (1983). A note on progression, penalty schemes and tax evasion. *Journal of Public Economics*, 22(1), 127_133.
- Kotowski, M. H., Weisbach, D. A., & Zeckhauser, R. J. (2014). Audits as signals. In *U. Chi. L. Rev.* (No. Paper No. 651). <https://doi.org/http://dx.doi.org/10.2139/ssrn.2311417>.
- Lawler, J. J. (1998). Not just for the money: An economic theory of personal motivation. *Personnel Psychology*, 51(3), 740. Retrieved from <https://www.proquest.com/openview/1578b6105be668439bd28c1fe160bc19/1?pq-origsite=gscholar&cbl=36693>.
- Lazar, S. (2014). Determinants of the variability of corporate effective tax rates: Evidence from romanian listed companies. *Emerging Markets Finance and Trade*, Vol. 50, pp. 113–131. <https://doi.org/10.2753/REE1540-496X5004S4007>.
- Leland, H. E., & Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *The Journal of Finance*, 32(2), 371_387.
- Lev, B., & Thiagarajan, S. R. (1993). Fundamental information analysis. *Journal of Accounting Research*, 31(2), 190_215.

- Lewis, A. (1982). The social psychology of taxation. *British Journal of Social Psychology*, 21(2), 151_158.
- Long, S., & Swingen, J. (1991). The conduct of tax-evasion experiments: Validation, analytical methods, and experimental realism. *Tax Evasion: An Experimental Approach*, 128_138.
- Marie-Jeanne, C. (1999). Paiement du dividende en actions et théorie du signal. *Économie et Sociétés. Série SG, Sciences de Gestion*, 26(27), 273_298.
- Menchaoui, I. (2015). Identification et impact des pratiques de gestion fiscale sur la performance fiscale des groupes de sociétés: une étude menée dans le contexte tunisien. Retrieved from <https://tel.archives-ouvertes.fr/tel-01164369>.
- Mossin, J. (1968). Aspects of rational insurance purchasing. *Journal of Political Economy*, 76(4, Part 1), 553_568.
- Omer, T. C., Molloy, K. H., & Ziebart, D. A. (1993). An investigation of the firm size—effective tax rate relation in the 1980s. *Journal of Accounting, Auditing & Finance*, 8(2), 167–182. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/0148558X9300800206>
- Phillips, J. D. (2003). Corporate tax-planning effectiveness: The role of compensation-based incentives. *The Accounting Review*, 78(3), 847_874. <https://doi.org/https://doi.org/10.2308/accr.2003.78.3.847>.
- Pinteaux, P. (2017). l'optimisation à l'évasion fiscale internationale (1/2). *Économie et Management*, 163. <https://doi.org/https://cdn.reseau-canope.fr>.
- Polinsky, A. M., & Shavell, S. (2000). The economic theory of public enforcement of law. *Journal of Economic Literature*, 38(1), 45_76. <https://doi.org/10.1257/jel.38.1.45>.
- Porcano, T. (1986). Corporate tax rates: Progressive, proportional, or regressive. *Journal of the American Taxation Association*, 7(2), 17_31.
- Posner, E. A. (2000). Law and social norms: The case of tax compliance. *Virginia Law Review*, 86(8), 1781_1819. Retrieved from <http://www.jstor.org/stable/1073829>.
- Pyle, D. J. (1991). The economics of taxpayer compliance. *Journal of Economic Surveys*, 5(2), 163_198. <https://doi.org/https://doi.org/10.1111/j.1467-6419.1991.tb00131.x>.
- Rego, S. O. (2003). Tax-Avoidance Activities of U . S . Multinational Corporations. *Contemporary Accounting Research*, 20(4), 805_833. <https://doi.org/10.1506/VANN-B7UB-GMFA-9E6W>.
- Rosenbaum, J. E. (1979). Tournament mobility: Career patterns in a corporation. *Administrative Science Quarterly*, 24(2), 220_241. <https://doi.org/10.2307/2392495>.
- Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The Bell Journal of Economics*, 8(1), 23_40. <https://doi.org/https://doi.org/10.2307/3003485>.
- Rynes, S. L. (1989). Recruitment Research and Applicant Attraction: What Have We Learned? Retrieved from <https://ecommons.cornell.edu/handle/1813/77275>
- Rynes, S. L., Bretz Jr, R. D., & Gerhart, B. (1991). The importance of recruitment in job choice:

- A different way of looking. *Personnel Psychology*, 44(3), 487_521.
- Schwartz, R. D., & Orleans, S. (1967). On legal sanctions. *The University of Chicago Law Review*, 34(2), 274_300.
- Shevlin, T. (1987). Taxes and off-balance-sheet financing: research and development limited partnerships. *Accounting Review*, 480_509.
- Slemrod, J. (2004). The economics of corporate tax selfishness. National bureau of economic research.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355-374.
- Stickney, C. P., & McGee, V. E. (1982). Effective corporate tax rates the effect of size, capital intensity, leverage, and other factors. *Journal of Accounting and Public Policy*, 1(2), 125_152.
- Torgler, B. (2002). Speaking to theorists and searching for facts: Tax morale and tax compliance in experiments. *Journal of Economic Surveys*, 16(5), 657_683. <https://doi.org/https://doi.org/10.1111/1467-6419.00185>.
- Vandenbussche, H., Crabbé, K., & Janssen, B. (2005). Is there regional tax competition? Firm level evidence for Belgium. *Economist*, 153(3), 257_276. <https://doi.org/10.1007/s10645-005-1988-6>.
- Wahab, N. S. A., & Holland, K. (2012). Tax planning, corporate governance and equity value. *The British Accounting Review*, 44(2), 111_124.
- Wilkie, P. (1988). Corporate average effective tax rates and inferences about relative tax preferences. *The Journal of the American Taxation Association*, 10(1), 75_88.
- Wilkie, P. J., & Limberg, S. (1990). The relationship between firm size and effective tax rate: A reconciliation of Zimmerman (1983) and Porcano (1986). *Journal of the American Taxation Association*, 11(1), 76–91. Retrieved from <http://web.b.ebscohost.com/ehost/detail/detail?vid=0&sid=6a2bdeb8-52f6-4963-976f-19d37bab06f4%40pdc-v-sessmgr03&bdata=Jmxhbmc9Znlmc2l0ZT1laG9zdC1saXZl#AN=6147328&db=bsu>
- Witte, A. D., & Woodbury, D. F. (1985). The effect of tax laws and tax administration on tax compliance: The case of the US individual income tax. *National Tax Journal*, 1_13.
- Yee, C. S., Sapiei, N. S., & Abdullah, M. (2018). Tax avoidance, corporate governance and firm value in the digital era. *Journal of Accounting and Investment*, 19(2). <https://doi.org/10.18196/jai.190299>.
- Yitzhaki, S. (1974). A Note on Allingham and Sandmo. *Journal of Public Economics*, 3(2), 201_202.
- Zimmerman, J. L. (1983). Taxes and firm size. *Journal of Accounting and Economics*, 5, 119_149.