UNDERSTANDING THE DETERMINANTS OF TAX COMPLIANCE BEHAVIOR AS A PREREQUISITE FOR INCREASING PUBLIC LEVIES

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Abstract:
In this paper we investigate the most important studies concerning the factors which shape tax compliance behavior with the aim of understanding how these factors could be used by tax authorities as tools for increasing public proceedings. In order to do that, we first summarize the most relevant socio psychological, political and economic determinants. Among the socio psychological factors, we offer details concerning attitudes, norms, fairness perceptions, motivational postures, and the way they relate to tax compliance behavior. From the range of political determinants, we particularly emphasize the importance of tax law complexity. Moreover, we briefly present the evolution of the research on tax behavior starting from the assumptions of the classical model of tax evasion developed by Allingham and Sandmo (1972). We also underline the impact which audit probabilities, fines, tax rates, and income have on tax compliance behavior. Second we offer different examples of countries (e.g., Australia, New Zealand) which, based on the understanding of these determinants, have managed to develop models of tax compliance, to apply them and, as a consequence, to boost tax compliance. Third we draw conclusions about the importance of these factors and about the extent to which they could help other economies to increasingly levy taxes.

Key words: tax compliance behavior, socio psychological factors, political factors, economic factors, tax compliance

JEL classification: G02; G28; H26

INTRODUCTION

Over the years, various governments have simply tried to increase the level of tax compliance by adopting an intransigent attitude towards all taxpayers and by applying laws and regulations to sanction and fine evaders. These means of enforcement proved to be without a significant success. Towards the end of the 20th century, governments have realized that a change is needed in order to increase the amount of taxes collected. Thus, using adequate strategies based on understanding the reasons which drive compliance decisions is of greater help than strictly applying laws and regulations. The present study tries to reveal the different reasons, factors, or determinants which shape taxpayers’ behavior and to underline the idea that tax authorities have to be aware of and understand these determinants if their aim is increasing the level of tax compliance. The study presents also singles out some countries which, by comprehending these determinants, have designed frameworks of compliance that ultimately raised public proceedings.

Several studies have been devoted to the analysis of tax compliance’ determinants as they are of paramount importance for tax levying, public spending, and providing public goods. Allingham and Sandmo (1972), Srinivasan (1972), Yitzhaki (1974), and later on Erard and Feinstein (1994), Slemrod et al. (2001), or Anderhub et al. (2001) focus on the influence of economic factors (tax rate, audit rate, income, penalty) on compliance behavior. In a strongly documented literature review article, Andreoni et al. (1998) stress the idea that psychological (e.g., guilt, shame, regret, envy, anger, sense of duty), demographic, social, and moral factors should be integrated into standard economic models. The necessity of this integration lies in the significant discrepancy between theoretical models which overpredict non-compliance and real-world
compliance behavior (Andreoni et al., 1998: 855). In accordance with this recommendation, Feld and Frey (2002) focus on the role of trust as a psychological contract between taxpayers and tax authorities. Trust is again the central point in Scholtz and Lubell’s (1998) article which shows that it increases tax compliance more than punishment aversion or civic duty. Braithwaite (2003) identifies five motivational postures (commitment, capitulation, resistance, disengagement, game-playing) which shape tax compliance behavior. Torgler (2005) or Trivedi et al. (2004) support the idea that tax morale, i.e., the intrinsic motivation to pay taxes, plays a key role in raising tax compliance levels.

Kirchler (2007) provides a thorough description of the determinants of tax compliance, dividing them into three categories. He states there are social psychological determinants comprising attitudes, different types of norms, fairness perceptions, as well as motivational features relating to tax compliance, political determinants such as complexity of law and tax system, or fiscal policy, and economic determinants like the rational decision-making process and the effect of audits, fines, tax rates, income on tax behavior.

THE SOCIAL PSYCHOLOGICAL DETERMINANTS OF TAX COMPLIANCE

As Schmölders put it, every evaluation of the citizens’ tax compliance behavior should start from the answer to the question “How is the state mirrored in citizens’ minds?” He argues that “Consciousness about the state leads to citizens’ civic and tax sentiments’ and to a fundamental attitude with regard to problems of ‘their’ state” (Schmölders, 1960: 38). In other words, the way people express their attitudes, act, interact, react, and generally behave is grounded on the way they think rather than on reality (Lewis, 1978). What happens in citizens’ minds when dealing with issues like tax policy, public goods, tax regulations, etc., constitutes the social psychological determinants of tax compliance behavior.

Attitudes are generally assumed to influence compliance behavior because they represent taxpayer’s propensity to respond positively or negatively to a particular situation (Eagly and Chaiken, 1993; Ajzen, 1993). There is a manifold of ways to operationalize and measure attitudes towards taxation starting from general judgments of the government and state (Schmölders, 1960), subjective assessments of tax evasion (Porcano, 1988), ending with moral attitudes towards tax evasion (Orviska and Hudson, 2002). Several empirical studies reveal a statistically significant link between attitudes and self-reported behavior (Chan et al., 2000; Trivedi et al., 2004). Nevertheless, because the link is weak in most of the studies, i.e., attitudes cannot be fully perceived as a convincing proxy for behavior, results have to be cautiously interpreted (Kirchler, 2007: 55).

According to the literature, norms are behavioral standards set at personal, social reference group, and collective level (Kirchler, 2007: 70). Personal norms refer to internalized standards of behavior such as altruism, norm-dependency, or religious beliefs which usually correlate with high tax ethics and willingness to comply. Social norms represent patterns of behavior similarly judged by others (Alm et al., 1999). Generally, if a taxpayer receives from the reference group the signal that non-compliance behavior is acceptable, the level of compliance will decrease. Last but not least, societal norms represent cultural standards integrated in the relationship between taxpayers and authorities as well as in the tax legislation. At this level, compliance can be achieved by reducing the social distance between taxpayers and authorities as well as through cooperation and mutual trust.

When questioned about taxation, the majority of taxpayers mention fairness as one of the most important issues. Irrespective of the aspects taxpayers assess (tax code, tax burden, tax rate, efficiency of government expenditures), a high perception of fairness yields to a high level of compliance. In terms of which are the tax rate levels perceived to be fair, studies show that a 50% tax rate is the maximum level taxpayers accept (Lévy-Garboua et al., 2006), while a 30% tax rate seems somewhat just (Porscheke and Witte, 2002).

In their continuous interaction with authorities, taxpayers develop certain beliefs and attitudes according to which they choose to comply with the tax law or not. Hence, other important
determinants of compliance behavior which express the social distance between taxpayers and tax authorities are the motivational postures. According to Braithwaite (2003: 18), these represent “the interconnected sets of beliefs and attitudes that are consciously held and openly shared with others”. Compared to the abovementioned social psychological determinants, the concept of “motivational postures” is more elaborated because it integrates all of them.

By analyzing the corresponding statements of each motivational posture, one can notice that “commitment” and “capitulation” reveal a small social distance between taxpayers and authorities, while “resistance”, “disengagement” and “game-playing” reveal large distances. On one hand, the motivational posture “commitment” is shared by taxpayers who are inclined to meet their obligations due to strong moral or ethical beliefs and “capitulation” by taxpayers who willingly accept the legitimacy of authorities and cooperate with them. On the other hand, “resistance” pictures a defiant and aversive taxpayer who questions the legitimacy of authorities, “disengagement” a taxpayer who no longer wants to participate in the system and “game-playing” depicts a taxpayer highly motivated to discover loopholes in the law. Referring to the nature of compliance behavior, the first two motivational postures correspond to voluntary compliance, “resistance” to enforced compliance, while “disengagement” and “game-playing” to tax avoidance and tax evasion.

THE POLITICAL DETERMINANTS OF TAX COMPLIANCE

The political determinants of tax compliance behavior are the complexity of tax law, the complexity of tax system, and the fiscal policy. Before taking the decision to comply, one of the first elements taxpayers are confronted with is the tax law. Its level of complexity can turn a well-intentioned taxpayer into an avoider or evader. The structure of tax system can also hinder taxpayers’ willingness to comply, if they perceive the system as being too bureaucratic, with a high tax burden, and a high number of taxes. In the same vein, an inefficient fiscal policy mirrored in squandering of public funds and low quality of public goods make taxpayers think twice before paying the entire share of their tax liabilities.

From the three aforementioned political determinants of tax compliance, in the following we will draw attention on tax law complexity. People’s understanding of tax law is an important factor which shapes their disposition to comply. As the law is intricate, taxpayers become reluctant in trying to understand the provisions contained by the tax law. They often find tax law a burden due to its byzantine wording and perceive it rather as a foreign language. Their level of comprehension depends itself on the education, i.e., the number of schooling years. Plenty of studies have shown that higher-educated people understand better the meaning of tax liabilities and the aim of governmental policies and, as a consequence, they comply more (Schmölders, 1960; Song and Yarbrough, 1978; Spicer and Lundstedt, 1976).

The lack of tax law comprehension engenders distrust and non-compliance. Knowing that, different countries (e.g., Australia, France, New Zealand, USA) have undertaken long and complex endeavors to simplify the tax law, i.e., to rewrite the tax regulations into plain language by using logical structures. Despite the huge number of attempts, they had little effect on the improvement of the tax law grasped by ordinary citizens, business owners, or even by tax authorities, and almost no impact on the increase of tax compliance. Poking fun at the failed endeavors of reducing the tax law perplexity, USA congressman Delbert L. Latta points out “I hold in my hand 1,379 pages of tax simplification” (US News and World Report, 23 December 1985, cited in E. Kirchler, 2007: 8).

Some studies show that the complexity of tax law creates uncertainty in taxpayers’ minds, thus raising tax compliance levels. Beck et al. (1991) report that compliance increases along with income uncertainty. Moreover, Snow and Warren (2005) conclude that compliance levels increase when taxpayers are uncertain about how many non-compliance acts an audit can detect.

The uncertainty of tax law due to multiple changes generates itself a lack of certainty in the filing behavior and punishment aversion. Hence, most taxpayers hire tax lawyers and preparers. They are called to give expert advice on the correct filling in of the tax returns. For instance, in
Australia more than 75% of the taxpayers use tax advisers (Sakurai and Braithwaite, 2003) and in USA more than 60% of the total number of income taxpayers hire tax preparers in order to be sure they file an accurate tax return (Blumenthal and Christian, 2004).

Ironically, tax law is difficult to understand and gives birth to uncertainty not only for ordinary citizens but also for tax authorities. In 1959, Schmölders inquired different German politicians and finance representatives on their level of comprehension of fiscal policy issues. The results came much to the surprise of the researcher as respondents revealed a low level of knowledge and understanding of fiscal policy (Kirchler, 2007: 6). Poor tax knowledge and the uncertainty of the tax law offer authorities improper conditions in deciding to which extent taxpayers’ behavior is legal and where exactly is the boundary between right and wrong in the application of tax law provisions. By the same token, different studies support the idea that it is extremely difficult to delineate exactly a behavior that is in line with “the letter of the law” (e.g., Marshall et al., 1998; Owens and Hamilton, 2004).

THE ECONOMIC DETERMINANTS OF TAX COMPLIANCE

According to the neoclassical economic theory which makes use of the Smithian concept of homo oeconomicus, taxpayers are selfish rational utility maximizers who, following the optimal strategy, try to evade taxes as a means of obtaining the best outcome.

Starting with Becker’s seminal work (1968), evading taxes is no longer seen as a criminal activity per se but a rational utility maximizing strategy used by taxpayers when the benefits of the successful evasion value more than the costs of being audited, detected, and fined.

Allingham and Sandmo (1972) and Srinivasan (1973) created separately a model of tax evasion, based on Becker’s theory, where the taxpayer is endowed with two strategies: 1) to pay the tax according to the real income, or 2) to declare a smaller amount of income and consequently to pay less tax. Choosing between these two strategies depends on the probability of being audited. As rational maximizers conforming to the von Neumann-Morgenstern axioms, individuals are assumed to opt for the strategy that yields the highest expected utility under uncertainty conditions, therefore evade taxes if it pays. One can notice that if the taxpayer is not audited, the second strategy generates the higher profit, while in case of audit, detection, and fine, the first strategy would be preferred by the rational taxpayer.

The classical economic model of tax evasion assumes there are four different determinants that shape taxpayers’ behavior: audit probability, fines, tax rates, and income. According to the model, tax evasion decreases when audit probability and fines increase, because the expected utility of evasion mitigates as well. As for the other two parameters, their increase leads to ambiguous results concerning compliance. Even if the authors recognize the existence of other variables which might influence compliance (e.g., taxpayers’ reputation gained from compliance behavior), their model focuses only on the four parameters previously mentioned.

Based on the results predicted by the model, one could state that compliance would be easily increased all over the world if governments simply imposed more severe fines or increased audit probability. Nevertheless, the majority of theoretical and empirical studies departed from this standard economic model have shown inconsistencies relative to the theoretical assumptions of the model, i.e. compliance cannot be increased easily. The identified inconsistencies called for refinements of the model and inclusion of other variables. By making the fine proportional to the evaded tax rather than to the undeclared income, Yitzhaki (1974) solves the inconclusive findings of Allingham and Sandmo (1972) but reports a counterintuitive result: an increase in income tax must boost the declared income. Other researchers including, e.g., Clotfelter (1983), report a negative relationship between income tax rate and compliance. Gordon (1989) shows that, if taxpayers differ according to their honesty, an increase in the tax rate will abate compliance even for the most honest taxpayers. Refining the proposal from Yitzhaki (1974), Lin and Yang (2001) also predict a negative influence of tax rate on compliance provided the taxpayers are able to determine their desired level of compliance.
In the following we will focus on the empirical studies which tackle the manipulation of audit probability, fines, tax rate, and income. Concerning the first parameter, most studies support the hypothesis according to which increasing audit probability will lead to an increase in compliance behavior (Pommerehne and Weck-Hannemann, 1996). In a field experiment on 1724 American taxpayers notified about being audited after filing the tax returns, Slemrod et al. (2001) find a higher level of compliance among low and middle-income taxpayers and a higher propensity to avoid taxes in the high-income group. Alm et al. (1995) vary audit rates from 5% to 30% and 60% and report a significant increase in tax compliance. In the same vein, Trivedi et al. (2003) shift from an audit probability of 0% to 25% and observe higher tax compliance in the latter case. Other studies report that compliance diminishes in the first rounds after an audit and then increases again (Guala and Mittone, 2005). The phenomenon was coined “bomb-crater” effect and refers to the following situation: “a taxpayer who has recently been audited seems to believe that the likelihood of a subsequent audit is very remote; therefore, the risk of evasion appears to be low. After several periods, however, the assumed likelihood of audits increases again, and compliance increases” (Kirchler, 2007: 123).

The deterrent effect of fines is not always straightforward as one would assume. Some studies report a weaker influence on compliance level (Friedland et al., 1978; Park and Hyun, 2003), others report no effect (Pommerehne and Weck-Hannemann, 1996) or counterintuitive results such as tax avoidance increasing with the increase in fines (Schwartz and Orleans, 1967; Fjeldstad and Semboja, 2001). Other studies emphasize the idea that fines are effective only if combined with high audit rates (Alm et al., 1995). Taking into consideration these different results, tax authorities have to pay particular attention when setting the fine levels. Fines should be high enough to deter non-compliance behavior and low enough to avoid triggering dissatisfaction with a government perceived as unjust and unfair.

Most studies report a negative relationship between tax rate and compliance behavior. Anderhub et al. (2001) showed that an increased tax rate discouraged tax evasion. In a 25-round experiment, Alm et al. (1992) report that compliance level lessens when the tax rate is boosted from 10%, 30% to 50%. By the same token, Friedland et al. (1978) and Collins and Plumlee (1991) observe lower compliance at higher tax rates. Studies which follow the prescriptions of Yitzhaki (1974) and report a positive relationship between tax rate and compliance are less frequent (Feinstein, 1991; Alm et al., 1995).

Regarding income, empirical studies report results as ambiguous as the standard economic model. Just like in the case of fines, some studies identify a negative relationship between income and compliance (Baldry, 1987; Anderhub et al., 2001), a positive relationship (Christian, 1994; Fishlow and Friedman, 1994), or no relationship at all (Park and Hyun, 2003; Wärneryd and Walerud, 1982). The inconclusive results could be explained by other parameters moderating or mediating the income effect like the opportunities for tax avoidance or the income source (Kirchler et al., 2007: 6).

**PRACTICAL EFFECTS OF UNDERSTANDING THE DETERMINANTS OF TAX COMPLIANCE**

Empirical studies on tax behavior accomplish the ultimate goal when their results are applied in the real world tax system. This is what happened in some countries which, after studying thoroughly the determinants of taxpayers’ behavior, have managed to create models in order to serve as tools in raising tax compliance on the long run. One of the most famous models, the Australian Taxation Office Compliance Model (ATO), was created in the late 1990s and was based on Valerie Braithwaite’s concept of “motivational postures”. It came as a consequence of a series of reforms that tried to engender a more voluntary taxpaying culture among the citizens. The reforms departed from the idea that tax enforcement strategies, i.e., the full use of the law, audits, fines, prosecution, etc., are by far insufficient means of increasing public proceedings.
Out of Braithwaite’s five motivational postures, the compliance model incorporates only four (“commitment”, “capitulation”, “resistance”, “disengagement”), the fifth motivational posture of “game-playing” being found within each of four taken into consideration.

Figure 1. Australian Taxation Office Compliance Model (adapted from E. Kirchler, 2007: 100)

As it can be seen in figure 1, the Australian tax office recommends an enforcement strategy and a regulatory strategy for each motivational posture. As the social distance between the taxpayer and authorities increases, so does the severity of actions against non-compliance. Hence, tax authorities have at their disposal a wide range of strategies from making compliance easy and offering assistance, in the case of honest taxpayers, to using full force of the law, in the case of tax evaders.

Following the Australian example, the New Zealand Inland Revenue has designed a model of compliance aimed at grasping the determinants of tax behavior in order to increase the long-term level of compliance, as one can see in the following figure.

Figure 2. New Zealand Inland Revenue Compliance Model (adapted from Morris and Lonsdale, 2004)
The Inland Revenue model resembles the ATO Compliance Model and contains an important tool called BISEP, which is the acronym for the following main determinants of compliance: Business, Industry, Sociological, Economic, and Psychological. BISEP is designed to assess the reasons that go behind taxpayers’ attitudes and behavior. The variety of factors creates different types of attitudes, according to the different situations taxpayers face (Morris and Lonsdale, 2004). Morris and Lonsdale further argue that BISEP gives insights into why people decide or not to comply, why non-compliant individuals don’t necessarily belong to the top of the pyramid and why individuals don’t always adopt the same attitude.

Figure 3. BISEP. What are the influencing factors and what do they tell us? (adapted from Morris and Lonsdale, 2004)

Some of the strategies applied by both the Australian Taxation Office and the New Zealand Inland Revenue (“make it easy”; “assist to comply”) were applied also by the Romanian tax office. In 2009, tax authorities organized a national campaign called “The tax office gets out on the street” to make taxpayers aware of the importance of voluntary compliance for the whole society. As a result, the number of income tax returns increased by 15% compared to 2008. Moreover, in 2011 the national online payment system for tax liabilities was launched to ease compliance process and mitigate bureaucracy. The taxes paid through the online system reached a value of 400000 Euros in 2012, with 10% of the payments being done from outside the country.

CONCLUSION

Since the invalidation of the assumptions stated by the classical model of tax evasion (Allingham and Sandmo, 1972), theoretical and empirical studies reported that tax compliance behavior is as complex as taxpayer’s personality. Various types of factors influence the decision to comply, starting from the socio psychological determinants (attitudes, norms, fairness, motivational postures), political determinants (complexity of law and tax system, fiscal policy), to the economic ones (audit probabilities, fines, tax rates, income). Hence, assessing the factors which impact on the ordinary taxpayer is a prerequisite for finding ways of increasing tax compliance.
In the last decade, tax research found positive echoes among tax authorities from different countries. A notable example in this sense is Braithwaite’s concept of “motivational postures’ which has assisted Australian tax authorities in creating the Australian Taxation Office Compliance Model. The experience in applying the ATO Compliance Model, with its stories of accomplishments and failures, has been shared with tax authorities from different countries, i.e., Great Britain, New Zealand, Canada, Bulgaria, Thailand, Commonwealth countries in Asia, Africa, South Pacific (Braithwaite, 2003). Some of these countries have already put in practice this model or have adapted it to the specificity of their tax climate. Like Braithwaite points out, “the principles of responsive regulation travel widely, but the regulatory pyramids cannot and should not be treated as cookbooks. Each compliance group needs to find its own strategies that suit the problem, the context, and the available resources. And they need to consult widely with the community to find these strategies.” (Braithwaite, 2003: 8).

Following the examples of Australia and New Zealand, tax authorities around the world should not overlook the stream of literature focused on tax compliance behavior. The most robust findings reported in empirical studies should be analyzed with the aim of developing a tax system which fosters compliance and reduces the distance between taxpayers and tax authorities, as Owens and Hamilton (2004: 357) suggest: “How should the tax affairs of small businesses be dealt with - people who cannot hire a bevy of tax accountants or lawyers to ensure that they get things right? These are people who generally are so caught up in running their business, often until late each night, that they have little time for the seemingly costly bureaucratic processes required to comply with tax obligations. You have to make the system a lot simpler for such people if you expect them to be able to comply easily”.

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