

# Tax Compliance as the Result of a Psychological Tax Contract: The Role of Incentives and Responsive Regulation

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*A psychological tax contract goes beyond the traditional deterrence model and explains tax morale as a complicated interaction between taxpayers and the government. As a contractual relationship implies duties and rights for each contract party, tax compliance is increased by sticking to the fiscal exchange paradigm between citizens and the state. Citizens are willing to honestly declare income even if they do not receive a full public good equivalent to tax payments as long as the political process is perceived to be fair and legitimate. Moreover, friendly treatment of taxpayers by the tax office in auditing processes increases tax compliance.*

## I. INTRODUCTION

The puzzle of the economic theory of tax compliance is why people pay taxes. According to Allingham and Sandmo (1972), based on Becker's (1968) economic theory of crime, the extent of deterrence, as the product of the probability of being detected and the size of the fine imposed, determines the amount of income tax evaded. However, in view of the low deterrence applied in most countries, either because of a low intensity of control or small penalties, taxpayers should evade more than they actually do, that is, compliance is too high (Alm, McClelland & Schulze 1992). In defense of the deterrence model, some scholars contend that the gap between theory and evidence might be closed by assuming sufficiently high risk aversion of taxpayers. This is not convincing as the risk aversion that is needed in order to raise compatibility with actual compliance rates is not supported by evidence from the U.S. (Alm, McClelland & Schulze 1992; Graetz & Wilde 1985) and Switzerland (Pommerehne & Frey 1992).

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We would like to thank four anonymous referees and the editor of this special issue, Valerie Braithwaite, for very useful suggestions for revision.

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Two strands of argument are brought forward in order to close the gap between theory and practice (see the surveys by Andreoni, Erard & Feinstein 1998; Slemrod & Yitzhaki 2002; Torgler 2003). One line of argument extends the risk aversion theme by emphasizing the subjective nature of the probability of being detected, with the result that individual perceptions of being caught when cheating on the tax code are much higher than objective probabilities of detection. Individual misperception of risk is unsustainable over a longer time horizon, however, as people can infer control intensities from friends and relatives. Subjective probabilities of being caught exist, but they are most likely to be shaped by shared knowledge about the individual's ability to evade taxes in different subgroups of the population. For example, withholding taxes strongly reduce auditing costs of tax administrations because auditing of firms suffices to obtain information on employees' labor incomes. It can also be conjectured that incomes generated in the industrial sector can be less easily evaded than those in the services sector, that capital income is more easily evaded than labor income, and so on. Adding such variables reflecting socio-demographic structure is fully in line with the traditional tax compliance model, which only abstracts from such variables for analytical convenience in order to focus on the main economic arguments. Empirical analyses necessarily have to control for socio-demographic variables in order to be more realistic. However, the empirical evidence implies that the standard economic model augmented by socio-demographic control variables is not able to explain the extent of tax compliance in a satisfactory way (Frey & Feld 2002).

A much more fundamental critique of the standard economic approach is provided by another line of research according to which tax morale serves as an explanation for compliance rates (see e.g., Alm, McClelland & Schulze 1992; Cullis & Lewis 1997; Schwartz & Orleans 1967; Roth, Scholz & de Witte 1989; Torgler 2003). Frey and Feld (2002) argue that tax compliance is driven by a psychological tax contract between citizens and tax authorities. For that contract to be upheld, incentives such as rewards or punishment need to be provided, but loyalties and emotional ties that go well beyond transactional exchanges must be considered as well. These bonds between taxpayers and the state represent the core of individual tax morale, and thus positively affect tax compliance. However, as tax morale interacts with incentives, no simple tax policy guidelines can be proposed. In the approach of Allingham and Sandmo (1972), tax morale explains the level of tax compliance only residually, and independent from tax policy and the behavior of state authorities. In contrast, the psychological tax contract is influenced by government policy, tax authorities' behavior, and state institutions, all of which influence tax morale. Tax morale becomes endogenous instead of serving as a residual explanation.

In this article, we undertake the first steps in developing the notion of a psychological tax contract as a concept that, first, goes beyond the traditional

deterrence model (fear in Scholz & Pinney's 1995 terms) and, second, explains tax morale (duty in their terms) as a complicated interaction between taxpayers and the government establishing a fair, reciprocal exchange that involves the giving and taking of both parties. In section II, the theoretical basis of the psychological tax contract is provided by discussing the interactions between incentives and the intrinsic motivation to pay taxes (Frey 1997a). Positive (rewards) or negative incentives (deterrence) play a role, but it cannot be taken for granted that they induce tax compliance because they may also crowd out tax morale. Thoughts on the impact of deterrence and rewards on tax compliance highlight the importance of a differentiated approach.

A contractual relationship implies duties and rights for each contract party. This is looked at from an exchange perspective (section III) according to which the government should provide public services to citizens in exchange for their tax payments. If the benefit principle of taxation, which implies a fiscal equivalence between public goods and tax prices, is violated by setting those prices too high, citizens think they have a justification for evading taxes (See Becker, Büchner & Sleeking 1987; Spicer & Becker 1980; Spicer & Lundstedt 1976). Alm, McClelland, and Schulze (1992) and Alm, Jackson, and McKee (1993) find that the introduction of a public good in exchange for the taxes paid increases compliance rates in experiments.) However, citizens may perceive their tax payments as contributions to the *bonum commune* such that they are willing to honestly declare their income even if they do not receive a full public good equivalent to their tax payments. Income redistribution is more likely to be accepted by affluent citizens, when the political process is perceived to be fair and the policy outcomes legitimate: The psychological tax contract has elements of gain (or distributive justice) and participation (or procedural justice) (Tyler 1990 analyzes procedural fairness in an experimental context. A broader survey is given by Frey, Benz & Stutzer 2004).

The contractual relationship has additional implications at the procedural level (section IV): the way the tax office treats taxpayers in auditing processes plays a role. As Frey and Feld (2002) and Feld and Frey (2002a, 2002b) argue, the psychological tax contract presupposes that taxpayers and the tax authority treat each other like partners, that is, with mutual respect and honesty. If tax administrations treat taxpayers as inferiors in a hierarchical relationship instead, the psychological tax contract is violated and citizens have good reason not to stick to their part of the contract and to evade taxes. The psychological tax contract has thus also elements of respect (or interactional justice). In section V, we draw some conclusions as to the policy implications of such a contractual view of tax compliance. It implies that simple policy proposals are inadequate to shape the psychological tax contract successfully. The right mixture of incentives and a respectful treatment of taxpayers by tax officials need to be found.

## II. THE PSYCHOLOGICAL TAX CONTRACT

Nobody likes paying taxes, not least because it involves a public good and there are incentives to free ride. Therefore, incentives are needed to enforce taxation. This is the central insight of Allingham and Sandmo's (1972) deterrence approach to tax evasion. However, several scholars have established that selfish individuals would be rational not to pay taxes, because the probability of being detected and the size of the fines in many countries are so low that it is advantageous to evade (see Alm, McClelland & Schulze 1992; Graetz & Wilde 1985; Pommerehne & Frey 1992; Skinner & Slemrod 1985). Tax payment is taken to be a "quasi-voluntary" act (see Levi 1988) and the tax authority must acknowledge that external interventions in the form of rewards or sanctions may crowd out that intrinsic motivation to pay taxes. The idea of intrinsic motivation is largely attached to psychology. A group of cognitive social psychologists have identified that, under particular conditions, monetary (external) rewards undermine intrinsic motivation.<sup>1</sup> Giving of rewards for undertaking an activity has indirect negative consequences as rewards lead to the expectation of future rewards such that desired behavior is undertaken only if rewards are provided. Frey (1997a) generalizes this basic idea in three ways:

- (a) All types of external interventions may negatively affect intrinsic motivation, that is, not only offering rewards, but also by issuing commands and imposing rules and regulations as well as punishments. Thus, deterrence imposed by the tax authority may undermine individuals' intrinsic willingness to conform to tax laws.
- (b) The intrinsic motivation affected by external intervention is broadly conceived. It comprises actions undertaken for their own sake, that is, without expectation of external reward, as well as internalized norm-guided behavior. The latter is the relevant concept as far as taxpaying is concerned.
- (c) External interventions undermine intrinsic motivation when they are perceived to be intrusive by the individuals concerned ("crowding-out effect"), and they maintain or raise intrinsic motivation when they are perceived to be supportive. The underlying psychological processes depend on how self-determination and self-esteem are affected (Deci & Flaste 1995; Deci & Ryan 1985). Tax audits as intrusion by tax authorities can undermine tax morale more strongly if the taxpayers' sense of self-determination is high.

Tax officials are assumed to be aware of the effects on taxpayers' behavior suggested by crowding theory. They know that a disrespectful treatment of taxpayers undermines tax morale and therewith increases the cost of raising taxes. At the same time, tax authorities will only behave in a respectful way towards taxpayers when there is a substantial amount of tax morale to

begin with. Tax officials are well aware that tax payments do not solely depend on tax morale but that extrinsic incentives play a major role. In particular, incentives are used to prevent taxpayers with low tax morale from exploiting the more honest taxpayers escaping paying their due share. A combination of respectful treatment and incentives is possible and widely practiced. The sole reliance on incentives, as suggested by a large part of the tax compliance literature based on subjective expected utility maximization, represents a special case, which only applies under restrictive conditions. Such a special case occurs when the tax officials are convinced that individuals' tax morale is low or does not exist at all. In general, however, it is optimal to use both respectful treatment as well as incentives simultaneously. Tax officials who recognize that the crowding-out effect will be stronger where there are initial high levels of tax morale, will put less weight on incentives, and will treat taxpayers more respectfully.

This relationship between taxpayers and tax authorities can be modeled as an implicit or relational contract (Akerlof 1982), which involves strong emotional ties and loyalties. Social psychologists (Rousseau & McLean Parks 1993; Schein 1965) have been using this concept for a long time, calling it a "psychological" contract to set it apart clearly from formal contracts, which are obeyed because the parties respond to the explicit and material sanctions previously agreed upon. Osterloh and Frey (2000), for example, use psychological contracts to successfully analyze the organization of firms. They could also be used in tax compliance analysis, suggesting that incentives and respectful treatment are important determinants of tax compliance.

In the psychological tax contract, punishment still plays a role in order to provide deterrence. But the satisfaction of taxpayers with what they get from the other contract party, that is, the government, mainly influences their tax morale. Taxpayers' reward from that contract must be understood in a broad sense going beyond pure exchanges of goods and services for the payment of a tax price. In addition to such direct exchange components, the fairness of the procedures leading to particular political outcomes as well as the way the government and the taxpayers treat each other are part of the contractual relationship. A genuine reward is therefore obtained only if taxpayers as citizens have an inclusive, respectful relationship with the community. Both sides of the contract perceive each other as contract partners and treat each other with mutual respect. As deterrence and tax morale interact, it would be counterproductive solely to rely on punishment or monetary (non-authentic) rewards, because tax morale can be undermined. A dynamic relationship results, in which deterrence, monetary rewards, fiscal exchange, but also decision-making procedures and the treatment of taxpayers play a role.

The contractual metaphor has many advantages over traditional theoretical approaches. It underlines, first, that paying taxes is a quasi-voluntary act. Each party has to agree to the contents of the contract. In practice, it is

seldom the case that each public good is individually contracted with each taxpayer for a certain tax price. However, a steady reduction in tax compliance need not only be interpreted as a violation of the law, but also as taxpayers' discontent with what they receive for their taxes. Second, the contractual approach emphasizes the role of fair procedures decided upon at a constitutional stage. Tyler (1990) argues that people comply with the law in general if they perceive the process that leads to this law as fair. Most obviously, it will be difficult to think of a psychological tax contract in autocratic regimes. The inclusiveness of political decision making could, however, also be very different in democratic regimes, depending on the extent of citizens' involvement in political decision making. This second advantage of the contractual metaphor stems from its potential to include notions of procedural fairness almost by construction. Third, the way people are treated by the tax authorities affects cooperation levels. Again the analogy to private contracts is useful. If you can purchase a product from two different suppliers, would you choose the one that is more friendly and respectful when treating customers? The answer would be yes, providing the price differential was not too high. In a similar fashion, the way the tax office treats taxpayers plays a role.

At this procedural level, respectful treatment can be split into two different components. First, the procedures used by auditors in their contact with taxpayers are to be transparent and clear. In the case of arbitrary procedures, taxpayers feel helpless and get the impression that they are "corks bobbing on an ocean" and not to be taken seriously. Such behavior reduces their perception of being obliged to pay taxes. Second, respectful treatment has a direct personal component in the sense of how the personality of taxpayers is respected by tax officials. If they treat taxpayers as partners in a psychological tax contract, instead of inferiors in a hierarchical relationship, taxpayers have incentives to pay taxes honestly. In addition, respectful treatment of taxpayers enforces the effects of emotions on compliance behavior. Grasmick and Bursik (1990) show, for example, that shame-guilt affects tax compliance, as do Ahmed and Braithwaite (2005). Makkai and Braithwaite (1994) report similar evidence in the context of nursing home regulation.

Two opposite cases of treating taxpayers can be distinguished: (1) respectful treatment supporting, and possibly raising, tax morale; and (2) authoritarian treatment undermining tax morale. The tax officials can choose between these extremes in many different ways. For instance, when they detect an error in the tax declaration, they can suspect intent to cheat, and impose legal sanctions. Alternatively, the tax officials may give the taxpayers the benefit of the doubt, and inquire about the reason for the error. If the taxpayer in question indeed did not intend to cheat but simply made a mistake, he or she will most likely be offended by the disrespectful treatment of the tax authority. The feeling of being controlled in a negative way, and being suspected of tax cheating, tends to crowd out the intrinsic motivation to act as an honorable taxpayer and, as a consequence, tax morale will fall.

In contrast, if the tax official makes an effort to locate the reason for the error by contacting the taxpayer in a courteous way, the taxpayer will appreciate this respectful treatment and tax morale will be upheld.

#### A. THE IMPACT OF DETERRENCE ON TAX COMPLIANCE

Given the requirements of a psychological tax contract, what role does deterrence play? According to the surveys by Andreoni, Erard, and Feinstein (1998) and by Slemrod and Yitzhaki (2002), an overwhelming majority of theoretical studies predicts a positive impact of deterrence on tax evasion. The higher the fines, the lower is tax evasion—*ceteris paribus*; the higher is the intensity of control, the lower is tax evasion—*ceteris paribus*. However, the empirical evidence looks less convincing. For example, Dubin, Graetz, and Wilde (1987), Dubin and Wilde (1988), Beron, Tauchen, and Witte (1992), and Slemrod, Blumenthal, and Christian (2001) found a significant positive impact of the probability of detection on tax evasion at least for some income groups. While Schwartz and Orleans (1967), Friedland, Maital, and Rutenberg (1978), Klepper and Nagin (1989), De Juan, Lasheras, and Mayo (1994), Alm, Sanchez, and De Juan (1995), and Blackwell (2002) reported a positive impact of fines on tax compliance, Spicer and Lundstedt (1976), Friedland (1982), Elffers, Weigel and Hensing (1987), and Varma and Doob (1998) present ambiguous evidence. Scholz and Lubell (2001) even found a crowding-out of tax compliance when penalties are introduced. Feld and Frey (2002a) provided support for the ambiguous impact of deterrence on tax compliance. For a panel of Swiss cantons, they found that a higher intensity of control increases tax evasion, while fines and penalties reduce tax evasion. Similar contradictory evidence is found in other fields of regulation. Makkai and Braithwaite (1994) provide an evaluation of nursing home regulation and inspection, and report that inspection teams which used purely negative and punitive approaches increased non-compliance. The results provided by Sirakaya and Uysal (1997) on compliance with eco-tourism guidelines and by He (2005) on compliance with a discriminatory license requirement in Beijing indicated that deterrence played only a small role.

This mixed evidence can occur for many different reasons, starting from measurement errors in the empirical analysis, to a social sanctions approach of deterrence (Ekland-Olson, Lieb & Zurcher 1984), and the impact of personal and social norms as moderators of deterrence (Wenzel 2004). It can, however, also be explained on the basis of crowding theory. Higher control intensities increase deterrence, and thus tax compliance, on the one hand, but may be perceived as intrusive by taxpayers, and thus reduce tax compliance, on the other hand (Scholz & Pinney 1995; Kirchlner 1999). Feld and Frey (2002a) have provided evidence that fines and penalties are part of a non-linear punishment schedule. This allows for low levels of fines in the case of minor offenses against the tax code, even a standing

tax amnesty in the case of self-denunciation, in order to reduce taxpayers' perception of intrusiveness, but requires high penalties in cases of tax fraud or major convictions in order to make clear that the psychological tax contract is at stake. Put differently, nobody is perfect, and to cheat a little bit on taxes is a common and minor human weakness, and should be considered as such, while basic violations of the tax code undermine the basic contractual relationship between citizens and the state, and must therefore be punished more heavily. Minor and major offenses could thereby be distinguished with respect to the amount evaded, but also to the nature of the offence, for example, by differentiating between active tax fraud by manipulation of the balance sheet, and passive tax evasion when taxpayers forget to report particular income components.

Deterrence has thus two different aspects. On the one hand, in order to keep up a psychological tax contract between the tax office and the taxpayers, honest taxpayers must be confident that they are not exploited by dishonest tax cheaters. Thus, deterrence for major violations of the tax code reduces tax evasion. On the other hand, each taxpayer may make a mistake, so that minor offenses can be penalized less without undermining the psychological tax contract. A non-linear punishment schedule with low fines for minor tax evasion and high penalties for tax fraud, will serve the purpose of shaping tax morale. All in all, the evidence suggests that an exclusive reliance on deterrence is not a reasonable strategy to increase tax compliance.

## B. REWARDING TAXPAYERS

In contrast to the standard model of tax evasion, which raises the relative cost of not paying taxes, rewards raise the benefits of paying taxes. A reward given to taxpayers for correctly fulfilling their duties changes the relative prices in favor of paying taxes, and against evading them (Falkinger & Walther 1991). In order for this result to occur, two conditions must be met:

- The income effect induced by increasing the wealth position must not work in the opposite direction to the effects operating without the reward. But this is unlikely if the reward is small compared to the tax liability so that the income effect also tends to be small. Moreover, there is little reason to expect that higher wealth should induce more, rather than less, tax evasion.
- The reward may induce strategic behavior by the taxpayers if it is offered in response to the reduction of evasive behavior. In that case, it may be rational to first increase tax evasion and thereafter reduce it in order to benefit from the rewards offered. As the rewards considered here depend on being a "good" taxpayer, strategic behavior is not a rational option.

It is crucial to consider effects of rewards on behavior going beyond those analyzed by standard theory. From the perspective of crowding-out theory, receiving certain types of rewards may undermine the intrinsic motivation

to pay taxes. The more rewards are perceived as an acknowledgment for being a good taxpayer, the more they are perceived as supporting and tend to bolster and raise tax morale, quite in contrast to deterrence. This motivational effect then works in the same direction as the relative price effect, and strengthens the attractiveness of giving rewards to “good” taxpayers. In the case of the normally applied punishment for failing to pay the taxes due, the relative price effect and the motivational crowding-out effect work in opposite directions. The way rewards are handed out to “good” taxpayers is thus essential for its effects on taxpayer behavior.

The reward may take the form of a direct monetary payment. It may be proportional to the size of the tax payment (i.e., a percentage rebate), or in the other extreme may take the same size for all “good” taxpayers. The relative price effect is larger in the first case, but this beneficial effect may easily be overcompensated by a crowding-out effect. A reward received in the same monetary dimension as the tax payments is likely to be discounted by the taxpayers as a “right,” and then does not positively influence tax morale. In contrast, a reward, on purpose distinguished from the taxes due, tends to be perceived as a sign of acknowledgment. If this is indeed the case, it is even better to give the reward in non-monetary form. To provide “good” taxpayers with better and less costly access to public services is likely to raise tax morale more strongly than money. Such a “gift” also emphasizes the exchange relationship between the taxpayer and the state, based on reciprocity (Fehr, Gächter & Kirchsteiger 1997). There are many ways to reward “good” taxpayers in these terms. For instance, they can be offered free entry to museums, exhibitions, and other cultural activities undertaken by the state. Or they can be given a reduction (say, 50 percent) on all public transport. Most taxpayers receiving a reward in these terms take it as a sign of appreciation, rather than simply a reduction in taxes (which would quickly be taken as a matter of course).

It is well known from psychological research that punishment and rewards lead to different behavioral outcomes. Indeed, it appears to be common knowledge among psychologists that rewards lead to better outcomes than punishment: Skinner (1948, 1953), for instance, emphasized the importance of positive incentives. In the literature on social loafing (see Diehl & Stroebe 1987; Witte 1989), the impact of reward and punishment is emphasized and it is shown that rewards particularly help to solve the problem of “hiding in the crowd” (Davis 1969). George (1995) provides additional quasi-experimental evidence that rewards and punishment differently affect social loafing, and significantly so.

### III. TAX COMPLIANCE AND SOCIAL EXCHANGE

From the perspective of standard economic theory, a much more direct incentive for tax compliance than deterrence or rewards takes the form of

the goods and services that the state provides to citizens in exchange for their tax payments (Mackscheidt 1984; Smith & Stalans 1991). If the analogy to private contracts is considered, the goods or services purchased provide the foremost incentives to pay the price for these goods and services. The incentives from private law to stick to the duties fixed by the contract mainly serve as an insurance if the individuals' desire to get a product is insufficient or the conditions for a *do ut des* are unfavorable. Similarly, rewards in the form of gifts for loyal customers serve as a positive means to bind them. Because the state supposedly provides public goods, services, and infrastructure, which are not necessarily traded in private markets, or redistributes income and wealth, the fiscal exchange relationship poses additional difficulties.

From the perspective of a psychological tax contract, respectful treatment is acted out at two levels, through the fiscal exchange and through procedures. The fiscal exchange between the state and its citizens requires that citizens' tax payments are met by public services provided by the government. According to the benefit principle of taxation, taxes are prices for certain public goods. However, the benefit principle does not necessarily imply that income redistribution becomes impossible, and only infrastructural goods as well as public consumption goods are provided by the state. Citizens may perceive their tax payments as contributions to the *bonum commune* such that they are willing to declare their income honestly, even if they do not receive a full public good equivalent to their tax payments. Income redistribution is more likely to be accepted by affluent citizens when the political process is perceived to be fair and the policy outcomes legitimate.

#### A. ESTABLISHING SOCIAL EXCHANGE BETWEEN CITIZENS AND THE GOVERNMENT

Empirically, the more governments follow the benefit principle of taxation and provide public services according to the preferences of taxpayers in exchange for a reasonable tax price, the more taxpayers indeed comply with the tax laws. Spicer and Lundstedt (1976), Porcano (1988), Alm, McClelland and Schulze (1992), and Alm, Jackson and McKee (1992a, 1992b, 1993) present experimental evidence that governments that stick to the principle of fiscal exchange achieve more tax compliance. Pommerehne, Hart and Frey (1994) use a simulation study design to analyze the impact of fiscal exchange on tax compliance. They show that the more the citizens' optimal choice of a public good and the actual provision level and quality deviate from each other, the higher tax evasion is. Tax compliance also increases with reductions in government waste. In the experimental papers, the proposed fiscal exchange relationship is based on the provision of a public good financed by taxes. Several authors have used this analogy to public good games in order to analyze additional variables that influence

tax evasion (see e.g., Feld & Tyran 2002). According to the benefit principle of taxation, such a restricted view of government action could be rationalized.

However, in real-world settings the state undertakes many activities that cannot be subsumed under the heading of a public consumption good or public infrastructure. In particular, any kind of pure redistribution is not covered by such a design. Whenever redistribution of income is at stake, problems of tax evasion are pertinent. There are only a few studies that consider the relationship between tax evasion and redistribution in a fiscal exchange setting. In their experiments, Güth and Mackscheidt (1985) chose a simple tax-transfer scheme to come as close as possible to the principle of vertical equity, that is, take from the rich and give it to the poor. They found that subjects had a compliance rate of 93 percent. However, Becker, Büchner and Sleeking (1987) report that evasion rises if taxpayers believe they lose from redistribution.

Obviously, the satisfaction with what the government provides in exchange for tax payments strongly depends on the experimental setting or, in the real world, on the environmental conditions. It appears that notions of fairness or justice shape the extent to which the fiscal exchange paradigm increases tax compliance in particular. Kinsey and Grasmick (1993) report evidence that horizontal equity plays a role. If an individual's tax burden is of about the same magnitude as that of comparable others, tax compliance increases (see also De Juan, Lasheras & Mayo 1994; Spicer & Becker 1980). Kinsey and Grasmick (1993) and Roberts and Hite (1994) report that vertical unfairness of the tax schedule (the progressivity of the income tax) increases tax evasion. This is in line with the results by Scott and Grasmick (1981), who report evidence that deterrence was more effective for taxpayers who perceived the tax system to be unfair. Moreover, Scholz, and Lubell (1998) emphasize the importance of trust in government for tax compliance. In contrast to their definition (1998: 411), this article presents a view of trust in government as more than a "rough measure of the net benefits from governing institutions." It also involves the effectiveness of the government to conduct the policies and programs promised to citizens. In particular, trust in government can be eroded if government waste is high. Braithwaite (1998, 2003) underlines the delicate nature of a loss of trust when taxpayers are not confident that the tax authority is able to regain its trustworthiness. Ahmed and Braithwaite (2004) report empirical evidence on a significantly higher non-compliance among those that have lost hope, that is, who believe that trustworthiness of the government is low.

#### B. ESTABLISHING FISCAL EXCHANGE BY POLITICAL DECISION-MAKING PROCEDURES

The fiscal exchange relationship between taxpayers and the state therefore depends on the politico-economic framework within which the government

acts. According to Alm, McClelland, and Schulze (1999: 149), rational egoists should vote for the lowest control intensities and fines that are necessary to ensure compliance. However, the possibility for voters to vote directly on matters of content increases the legitimacy of policies and serves as an insurance against exaggerated government waste. Direct political participation particularly activates public spiritedness of taxpayers (Feld & Kirchgässner 2000).

In an experimental study, Feld and Tyran (2002) found that tax compliance is higher on average in an endogenous fine treatment in which subjects are allowed to vote on a proposed fine, compared with an exogenous fine treatment where the fine is imposed by the experimenter (Alm, McClelland & Schulze 1999). The main explanation why people show a higher tax morale if they are allowed to vote on a fine is legitimacy. Subjects who approve the fine in the endogenous fine treatment have considerably higher tax compliance than subjects in the exogenous fine treatment. Also, compliance rates are higher if the fine is accepted than if the fine is rejected. Furthermore, subjects who reject the proposal of the fine show a higher compliance rate than subjects in the exogenous fine treatment. This occurs even when they know that the dominant strategy under the existence of the low fine is non-compliance. Lastly, individuals who vote against the fine contribute effectively more if the fine is adopted than individuals voting for the fine contribute if the symbolic fine is rejected.

Field studies by Pommerehne and Weck-Hannemann (1996), Pommerehne and Frey (1992), and Frey (1997b) have provided additional support for the experimental findings. Focusing on tax evasion in the Swiss cantons between 1965 and 1978, they found that the more direct democratic the political decision-making procedures of a canton are, the lower tax evasion is. These results have been replicated by Feld and Frey (2002a) and Frey and Feld (2002) by extending the sample to the period 1985 to 1995. Torgler (2005) used an alternative approach to study tax morale in the Swiss cantons by investigating two micro data sets (the World Value Survey and the International Survey Programme), which contain questions about tax morale of respondents. His results have provided evidence that direct democracy shapes tax morale. According to his estimates, tax morale is significantly higher in direct democratic cantons. Distinguishing between different instruments of direct democracy, he found that the fiscal referendum has the highest positive influence on tax morale. Moreover, tax morale of respondents was higher if they have higher trust in government, or in the courts and the legal system. Given that studies both in the U.S. (Gerber 1999) and Switzerland (Pommerehne 1978) have shown that policies in direct democratic jurisdictions are more strongly in line with citizens' preferences, institutions of direct democracy can be seen as a means of establishing a relationship of fiscal exchange between taxpayers and the government.

In addition, Torgler (2005) has reported evidence that local autonomy as an indicator of fiscal federalism has a marginally significant positive impact

on tax morale. Güth, Levati and Sausgruber (2005) found a stronger effect of fiscal decentralization on tax compliance in an experimental setting. Subjects showed higher tax morale if public goods were provided and financed regionally or locally because their taxes were spent on their own regional or local public goods. The fiscal equivalence of the theory of fiscal federalism then holds more strongly.

#### IV. THE TREATMENT OF TAXPAYERS

The psychological tax contract is also supported by research on interactional justice, in particular the respectful treatment of taxpayers by tax authorities. In order to investigate the relationship between taxpayers and tax authorities, Feld and Frey (2002a) sent a survey to the tax authorities of the twenty-six Swiss cantons, which asked detailed questions about the legal background of tax evasion, along with questions on the treatment of taxpayers by tax authorities in day-to-day audits, in particular when a taxpayer is suspected of not declaring his or her true taxable income. According to this survey, the extent of respectful treatment of the taxpayers is captured by: (1) fully observing procedures based on formal and informal rules, that is, what happens typically if a taxpayer does not declare taxable income at all (procedures, fines), if a tax declaration is mistakenly filled out or, in a second stage, if taxpayers do not react?; (2) acknowledgment of individual citizens' rights and personality, that is, what does the tax administration do if taxpayers declared taxable income by mistake that was too high? Are there attempts to find out whether taxpayers intentionally or mistakenly declare too low a taxable income? Are mistakes in the tax declaration to the advantage or to the disadvantage of taxpayers?

The way taxpayers are treated by tax authorities reveals interesting differences between the Swiss cantons. Only 58 percent of Swiss cantonal tax authorities believed that mistakes in reported incomes were, on average, in favor of taxpayers. Thirty-one percent believed that mistakes were neither to the advantage nor to the disadvantage of taxpayers, and 12 percent believed that mistakes were to the disadvantage of taxpayers. These answers indicated that distrust towards taxpayers was not universal. If a taxpayer did not report his or her true taxable income, tax authorities contacted her in several ways. Fifty-four percent of the cantons phoned the person concerned and asked how the mistake(s) occurred in the tax declaration and how it could be explained. All of the cantons sent a letter to the taxpayer, half of them with a standard formulation. Nearly 85 percent asked the taxpayer to visit the tax office, but only half of the cantons mentioned the possibility of punishment. Thus, while one half of the tax authorities rarely adopted the strategy of explicit deterrence, the common practice was to make taxpayers aware that a problem had been noticed and information sought. Ninety-six percent of the cantonal tax authorities corrected

reported incomes that were too high, that is, reduced taxable incomes when taxpayers committed mistakes that were to their disadvantage. Twenty-seven percent of the tax authorities corrected reported taxable income even if taxpayers failed to profit from legal tax savings.

The impact of the treatment of taxpayers on tax evasion was studied more thoroughly in a regression analysis by Frey and Feld (2002), and Feld and Frey (2002b). With a sample of twenty-six Swiss cantons in the years 1970–95, they showed that the tax authorities in Switzerland did indeed behave as if they were aware of the reaction of taxpayers to being treated with respect or not. According to the empirical findings, tax evasion is lower the more fully the tax office observes formal and informal procedural rules. The observation of procedural rules is indicated by a distinction between friendly or courteous treatments, for example a respectful procedure, and unfriendly or discourteous treatments, such as an authoritarian procedure or the tax authorities' resorting directly to deterrence through fines. It can be shown that friendly and courteous treatment has a stronger dampening effect on tax evasion, particularly in cantons using referendums and initiatives in political decision-making, whereas the authoritarian procedure, with the threat of deterrence, is particularly effective in reducing tax evasion in representative democracies, but counterproductive in direct democracies. Moreover, Swiss citizens are treated more respectfully by the tax authority in cantons with more strongly developed citizens' participation rights (Feld & Frey 2002b). In addition, tax authorities in more direct democratic cantons appear to give taxpayers the benefit of the doubt more frequently. Feld and Frey (2002a) reported evidence that tax authorities in more direct democratic cantons were significantly less likely to believe that mistakes in tax declarations were in favor of taxpayers.

## V. CONCLUSIONS

A fundamental result of the tax evasion literature is that it is still not fully resolved why people actually pay taxes, given the rather low levels of fines and auditing probabilities. The deterrence model of tax evasion cannot explain the high tax compliance rates without referring to an exogenously given tax morale. In this article, we have argued that tax compliance results from a complicated interaction of deterrence measures and responsive regulation. Citizens and the state develop their fiscal relationships according to a psychological tax contract that establishes fiscal exchange between taxpayers and tax authorities. It reaches, however, beyond pure exchanges, and involves loyalties and ties between the contract partners. Tax morale is therefore a function of: (1) the fiscal exchange where taxpayers get public services for the tax prices they pay; (2) the political procedures that lead to this exchange; and (3) the personal relationship between the taxpayers and the tax administrators.

In particular, the empirical evidence on Switzerland summarized in this article underlines these arguments by showing a family of tax jurisdictions where something like a psychological tax contract appears to be in place. There, the tax authorities take into account that the way they treat the taxpayers systematically affects the latter's tax morale, and therefore their willingness to pay taxes, which in turn affects the costs of raising taxes. In addition, tax compliance in Switzerland is shaped by direct democracy establishing a fiscal exchange relationship between taxpayers and the state. Although the empirical evidence provided relates to Switzerland (and the U.S.), we are confident that the issues considered here are valid more generally.

The contractual view adopted in this article allows for a coherent consideration of the impact of emotions and personal attitudes on tax compliance behavior as it is emphasized in the psychological literature. It also goes beyond the arguments for responsive regulation provided by Ayres and Braithwaite (1992), by suggesting that genuinely rewarding taxpayers in an exchange relationship will increase tax compliance. It should thus be considered as the tax authority's dominant strategy to approach taxpayers in order to enhance their tax compliance, while at the same time being able to resort to punishment if that strategy fails. The theoretical argument of a psychological tax contract thus has the ability to bridge economics, law, and policy.

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#### NOTE

1. Headed by Deci (1971). Extensive surveys are given in Pittman and Heller (1987), and Lane (1991). The effect is also known as "The Hidden Cost of Reward" (see Lepper & Greene 1978). For meta-analyses see Deci, Koestner, and Ryan (1999), and Cameron, Banko, and Pierce (2001). That external interventions may crowd out intrinsic motivation is introduced into economics as "crowding theory" (Frey 1997a; Le Grand 2003) and is supported by much empirical evidence (Frey & Jegen 2001).

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