

Economic Analysis

In this chapter we first give a heuristic intuition of the economic literature and modeling of tax amnesty. We then describe the key results of the literature.

The Modeling of Tax Amnesty

The literature on tax amnesty extends the literature on tax compliance that started with Allingham and Sandmo (1972).⁶ The standard tax amnesty problem⁷ is for the government, taking into account the citizens' optimization problem, to design, *ex ante*, a tax code so as to raise a desired amount of revenue efficiently (assuming an exogenous amount is needed), and, *ex post*, to decide whether to offer an amnesty or not depending on whether revenue targets have been achieved or not. Citizens, given the tax environment chosen by the government, decide whether to comply with the tax code or not. For those who do not comply, an amnesty, if provided, is an opportunity to reassess their choices in light of the (potentially) new tax environment that the government is announcing, or of unexpected changes in their own situation.

The tax-evasion decision is a trade-off between the benefits of tax evasion and the costs of detection. The former are primarily pecuniary (the amount of tax evaded); the latter are a function of a rich array of variables that can be classified in two categories: those that are under direct control of the government, and those that are taxpayer idiosyncratic, reflecting his or her preferences (e.g., toward risk), as well as social attitudes toward evasion.

⁶See Andreoni, Erard, and Feinstein (1998) for a recent survey of this model and the following tax compliance literature.

⁷Early contributions to the tax amnesty literature include Alm, McKee, and Beck (1990); Andreoni (1991); Malik and Schwab (1991); Stella (1991); and Graetz and Wilde (1993).

The government can significantly affect most variables influencing the cost-benefit trade-off of tax evasion. These variables include

- Direct penalties for tax evasion (financial, civil, and criminal),
- Indirect penalties (psychological, reputational costs),⁸
- Probability of detection (amount of resources devoted to tax administration),⁹ and
- Benefits from tax evasion (financial savings; time savings related to avoiding the sometimes complex taxpaying process).

To reduce the financial incentive associated with tax evasion—the difference between the tax actually paid (potentially zero) and the legal tax obligation—governments ought to have as broad a tax base as possible so as to avoid high marginal tax rates (the incentive to underreport taxable income or to overclaim deductions is directly influenced by the taxpayers' top marginal rate).¹⁰

The administration's optimal probability of detecting tax evasion is less than 100 percent because strict enforcement is costly both for the government (resource costs) and for citizens (through frequent audits, etc.). As noted by Stella (1991), because fraudulent taxpayers recognize the government's time-inconsistency problem—that is, the incentive for the government to announce a very strict enforcement technology but then to enforce a more lenient regime (because of the associated costs)—these announcements might not be initially fully credible; tax evaders therefore adjust their behavior slowly over time, as information about the true enforcement technology is revealed. The government could also, in theory, prevent cheating by setting an extremely high penalty for fraud. However, in practice,

⁸Measures that a government can take to increase the indirect penalties associated with tax evasion include, for example, (1) running media campaigns to instill the idea that tax evasion is shameful, disloyal to other citizens, unpatriotic, etc. (thereby increasing the psychological "guilt" associated with tax evasion) and (2) naming and shaming tax evaders (many U.S. states publish, on the Internet, the list of the state's top tax delinquents), thereby increasing reputational costs.

⁹The probability of detection is a key parameter in the tax-evasion decision: a high probability leads to greater voluntary compliance through a direct channel (citizen's direct cost-benefit analysis in a rational choice model), and an indirect channel (it limits free riders and coordination failures that undermine the credibility of the tax system).

¹⁰The literature usually assumes that citizens are atomistic players and therefore do not take into account the lower public good provision associated with their tax-evasion decision. In a general-equilibrium setup, the quality and level of public spending also need to be taken into account. It should be noted that the earlier literature (Yitzhaki, 1974) showed that when penalties are proportional to evaded taxes, higher marginal rates imply less evasion. This result tends not to hold empirically and was obtained in a model without public goods.

such prohibitive penalties are not feasible because of (1) equity considerations (e.g., penalties that are perceived to be out of proportion with the offense are less likely to be applied), (2) feasibility constraints (e.g., the penalty cannot exceed an individual's total wealth), and (3) corruption incentives (e.g., relating to tax enforcement officials).

Tax amnesties can arise when governments raise less revenue than expected (based on the tax code, the tax enforcement level, etc.).¹¹

Results from the Theoretical Literature

Three results from the theoretical literature stand out:

- Tax amnesties on their own¹² have, at most, only a limited effect on compliance.
- The compliance effects of tax amnesties are uncertain (both the short-run and long-run impacts).
- The revenue impacts of tax amnesties are uncertain (both the short-run and long-run impacts).

On its own, a tax amnesty has no direct effect in increasing compliance. This key result in the literature¹³ has the following intuition: tax amnesties offer citizens an incentive to reveal past tax evasion and become current with their tax payments. They do not, however, affect the direct cost-benefit of tax evasion: the tax code is unchanged, tax administration enforcement is unchanged, and so on. For tax evaders, that is, citizens for whom the tax-evasion benefits were higher than its cost, an amnesty has no direct effect on their equilibrium trade-off: they will continue to evade tax.

An amnesty, on its own, can affect compliance only through behavioral channels—its net effect, however, is unclear:

¹¹Chapter 5 describes alternatives to a tax amnesty that a government can choose.

¹²That is, tax amnesty programs that are not coupled with other fiscal measures, mainly of a tax administration nature (e.g., an increase in the penalty structure, an increase in tax-evasion detection capacity).

¹³This has been derived in *static* models by Alm and Beck (1991), Andreoni (1991), Malik and Schwab (1991), and Graetz and Wilde (1993), and more recently in a *dynamic* setup by Macho-Stadler, Pau, and Perez-Castrillo (1999) who also find that only “extensive” amnesties (i.e., those in which a fraction of the present discounted value of the tax liability is cancelled on top of the fines) are sufficient to alter tax evaders’ behavior. Das-Gupta and Mookherjee (1998) focus on the importance of having an effective tax administration in fighting tax evasion.

- On the one hand, amnesties can increase compliance through a “remorse” channel whereby some citizens originally underestimated the “guilt” cost of committing fraud;¹⁴ an amnesty (on its own), by reducing the switching cost from tax evader to taxpayer, increases compliance from some of those people (see Malik and Schwab’s (1991) “adaptive utility” framework).
- On the other hand, amnesties could damage compliance through the following channels:
 - Higher future audits: rational citizens understand that participating in an amnesty reveals one as a tax evader, which could lead to frequent audits.¹⁵ Because audits are costly for taxpayers (financially and psychologically), even if a citizen decides to comply fully with the law going forward, higher future audit probabilities reduce the incentive to participate in a tax amnesty.
 - Reduced future opportunity of tax evasion: because participating in an amnesty provides the tax authority with better information about one’s true income, an individual’s future tax-evasion possibilities are reduced; as a result, some individuals (e.g., fearing an unstable tax-policy regime) would still prefer not to participate in an amnesty (i.e., retain the option value of future tax evasion), even if this choice is coupled with increased costs of tax evasion (e.g., Fisher, Goddeeris, and Young, 1989; and Stella, 1991).
 - Loss of reputation: if a citizen’s tax-evasion history becomes public, the ensuing loss of reputation could be very damaging.
 - Reduced overall compliance from currently tax-abiding citizens who feel the tax amnesty is “unfair” to them (Alm, McKee, and Beck, 1990).
 - A revelation of the tax administration’s weak detection capacity (the more so, the more popular the amnesty is): in an asymmetric information environment where the government’s type (weak/strong tax law enforcer, weak/strong tax administration, etc.) is imperfectly known to the public, merely granting an amnesty once immediately reveals the government’s type and

¹⁴These costs are subjective and idiosyncratic, and only experience reveals their true extent—they are therefore inherently difficult to forecast for an individual. Another example is the anxiety cost of continuously living with the probability of being detected as a fraudster.

¹⁵Greenberg (1984) finds this is an optimal audit strategy for the tax administration; see also Olivella (1996). Because this strategy, however, leads to less participation in a tax amnesty program, some amnesty programs guarantee that program participants will not face a higher probability of audit than will other taxpayers. This claim is, however, difficult for citizens to verify.

therefore increases citizens' expectation of further tax amnesties (or reduces citizens' expected probability of being detected), which, in turn, reduces compliance.¹⁶ The mere discussion of an amnesty has a similar effect on compliance (Das-Gupta and Mookherjee, 1996).

However, political economy considerations might warrant a tax amnesty. Amnesties can be used to ease the political transition to stiffer penalties and enforcement of tax evasion and fraud. Amnesties would then be used to also clear the stock of past evasion, which hinders current enforcement. Combined with an improved enforcement technology, they can help speed up the transition to a new (tax-evasion-free) steady state (Macho-Stadler, Pau, and Perez-Castrillo, 1999).

¹⁶This remains the case even if the government announces that this is a one-off amnesty (because of a dynamic inconsistency problem and potentially low initial credibility).