

Speaking of Economics

Internal Revenue Service Tax Compliance Enforcement: "Six-Foot Under" or just "Lost"

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What do Al Capone, Mickey Cohen, Chuck Berry, Spiro Agnew, Leona Helmsley, Robert Huttenback, Harry Reems, and Pete Rose have in common? They were all convicted of a tax crime. This list might go on and on and deliberately spans many decades of tax enforcement. In this respect, there is nothing new under the sun when it comes to tax evasion. (Note that violation of criminal tax statutes goes hand and hand with non-tax crimes and is the more notorious cousin of good old-fashioned tax evasion). While civil and criminal tax evasion seem endemic to our tax system, the ability of the Internal Revenue Service (IRS) to deter these crimes has sputtered from badly ill to nearly moribund. First consider some troubling facts.

The annual tax gap (i.e., the difference between taxes owed and taxes paid) is estimated to be \$200 billion, or about 10 percent of what is collected each year from individuals and businesses. The IRS estimates that three-quarters of this tax gap is attributable to individual taxpayers. At that rate, individuals currently represent \$150 billion of the tax gap, which is more than double the level estimated in 1985. While the tax gap has grown, the IRS' ability to audit and enforce the tax code has diminished. For instance, in 2002, the IRS had roughly 13,000 revenue and tax agents devoted to examination. This number is down from the 18,000 revenue and tax agents employed in 1995. Meanwhile, the Criminal Investigations Division of the IRS (CI) is considerably smaller. In 1970, CI had approximately 2,500 agents. By 1998, the number of CI agents had increased to only 3,000 agents.

There has also been a staggering decline in the individual audit rate. During the period from 1977 through 1986 the individual audit rate declined from about two and one-half percent to just over one percent. This decline in the audit rate through 1986 was followed by the bottom falling out: the individual audit rate reached 0.6 percent in 1991 and was only 0.15 percent by 2001. At the same time, individual returns filed per capita has grown steadily over the last twenty-five years by nearly 20 percent.

Seemingly, the decline in audits and the decline in CI has been the natural consequence of budget policies applied to the IRS during this period. Additionally, the IRS appeared to adopt a policy of substituting third-party information reporting, document matching, and correspondence audits (audits conducted by mail) for traditional face-to-face exams. Due to the increases in the tax gap, it is critical to reassess the role played by examination in taxpayers' voluntary compliance and to ascertain what effect CI investigations play in general deterrence.

Using dynamic panel econometric techniques applied to historical time-series cross-section data, I have investigated the effects of audit rates on taxpayer compliance and most recently the specific and general deterrence effects of CI activities. Although the general deterrence effects provided by audits have been widely acknowledged, the IRS has not quantified the "spillover" benefits provided by audits. Spillover benefits are the increase in collections from taxpayers, whether or not they are audited, who report more taxes in response to an increased likelihood of an audit. The principal innovation, in my empirical investigations, has been to directly estimate taxes due, rather than first attempting to construct a noncompliance measure and then extrapolating from noncompliance to revenue.

My most recent study attempts to answer several basic questions focused primarily on CI. First, does CI have a measurable effect on voluntary compliance, which includes both civil and criminal tax laws? Second, if CI does have a measurable effect on voluntary compliance, what mix of CI investigations has the greatest influence on voluntary compliance? (CI investigates two broad categories of cases: tax violations and money laundering violations.) A subsidiary inquiry is whether either or both types of cases have an effect on voluntary compliance with the tax laws. Third, does media attention and publicity on CI investigations increase the compliance effect? Fourth, do convictions that result in prison sentences affect compliance

differently from cases that result in probation?

II. Criminal Investigation

One of CI's functions is to investigate alleged violations of the tax and money laundering statutes. CI has focused its activities for some time on narrowing the tax gap. Tax gap investigations include both tax and money laundering cases that involve tax issues. Tax gap investigations normally do not include illegal activity associated with narcotics investigations. Tax-related investigations encompass all Title 26 violations (tax evasion, failure to file, filing of false returns, fraudulent returns, or aiding or providing assistance to fraudulent returns) as well as tax violations that fall under Title 18 USC §286, 287, 371 (conspiracy to defraud the government or commit offense or false claims). CI also has jurisdiction over Title 31 cases (currency reporting violations). CI tax investigations are so-called *legal source* tax crimes because they encompass all cases involving tax violations where income is derived from legal activity, including questionable refund schemes, return preparer cases, excise tax cases, employment tax cases, and frivolous filers and nonfilers. CI also investigates *illegal source* financial crimes and narcotics-related financial crimes.

The CI is literally the IRS' criminal investigation arm. It is the only federal agency with the power to investigate potential criminal violations of the U.S. Tax Code. CI's tax cases sometimes result from referrals by the IRS' civil arm. During an audit or tax investigation, a

case might be referred to the CI for criminal investigation. However, audits are not the sole source for tax-related cases. CI may investigate a tax case initiated by a special agent in the field, a referral from another agency (FBI, Customs, or the US Attorney or DOJ), informants, as part of the Grand Jury process, or as a result of refund fraud-related activity. While the IRS can investigate and audit tax returns and recommend civil penalties, CI has the exclusive responsibility and authority to investigate tax fraud and to recommend prosecution for willful and egregious tax code violations.

Money laundering activity and tax activity can be closely related. Money laundering activity (i.e., activity involving illegal income sources) is often a precursor to tax evasion. As such, it is sometimes difficult to determine whether a specific investigation is primarily tax related or not. CI has been able to classify its cases in terms of whether they are primarily tax related or money laundering related. CI has further classified cases according to whether they are both tax and money laundering cases, tax cases only, money laundering cases only, or neither.

III. Data, Empirical Analysis, and Simulations

My analysis is based on two models that were both estimated using a state-level time-series cross-section. One model specified reported taxes per return filed as a function of audit rates and a variety of socioeconomic explanatory variables. The other model specified returns filed per capita as a function of the same variables. The data employed is a compilation of annual tax enforcement, criminal investigation, socioeconomic, and political statistics for each U.S. state from 1977 to 2001. The tax collections and examination variables rely on data reported in the *Annual Report of the Commissioner of Internal Revenue, IRS Data Book*, and *IRS Statistics of Income Bulletin*. My econometric analysis relates reported taxes per return and returns filed per capita to tax rates, the percent of adult population over 65 year old or with a high school education, per capita income, the percent employed in service or manufacturing, the percent on welfare, and other measurable factors. Further, the econometric models include explanatory factors for IRS activities (including audit and CI enforcement) which are treated endogenously. The econometric models were used to perform several simulations.

For simulations in which the audit rate is doubled, I find that a 90 percent lower bound on the estimated increase in reported taxes is \$11.468 billion. A similar lower bound on the estimated increase in assessed tax revenue is \$12.578 billion. At the lower bound estimates, the spillover effect is 91.2 percent.² For simulations in which CI enforcement levels are doubled, I find that a 90 percent lower bound on the estimated increase in reported taxes is \$3.348 billion. A similar lower bound on the estimated increase in assessed tax revenue is \$4.309 billion. At the lower bound estimates, the spillover effect is at least 77.7 percent. There are two important conclusions from this analysis. First, the spillover effect of audits and CI enforcement is quite large. Second, an increase in IRS examination activity could have important fiscal impacts and make a large

contribution toward reducing the tax gap. However, there is no evidence, in my study, that correspondence audits have made up for the decline in face-to-face tax audits.

IV. Policy Implications

I now further summarize my results and answer the basic questions that were above. First, I found that CI activities have a measurable effect on voluntary compliance. I found statistically significant results from my measure of CI sentenced cases on general tax deterrence. Second, I conclude that the mix of sentenced cases (tax and money laundering) is not a significant determinant of tax compliance (perhaps because the mix has been already optimally set). Third, changes in media attention, at the margin, were not found to be statistically significant determinants of compliance outcomes. However, the time period available to study media effects does not allow me to precisely measure these effects. Given the large general deterrence effect found for CI activities, there is indirect evidence of a large media effect, even if the econometric model did not have sufficient data to isolate this result. Finally, I have found that incarceration and probation (rather than fines) have the most influence on taxpayers. It would seem that an emphasis on prison and probation time should be encouraged based on these results.

In 1991, the IRS reported a unit cost of \$1,298 per audit and a unit cost of \$103,064 per CI conviction. These are \$1,597 and \$126,801 in 2001 after adjusting for inflation. In the same year, there were approximately 202,244 individual audits performed and roughly 2000 tax and money laundering sentences. Doubling tax and money laundering sentences would cost \$254 million (at these unit cost estimates), while doubling the audit rate would cost \$323 million. However, doubling the audit rates is predicted to lead to an \$18.71 billion increase in per annum reported collections, while doubling tax and money laundering cases is predicted to increase reported tax collection by \$16.68 billion per annum. Hence, an additional dollar allocated to audit would return \$58 in general deterrence, while an additional dollar allocated to CI would result in \$66.

An increase in the IRS budget of \$25 million allocated to CI for additional investigations, prosecutions, and sentencing would not appear to push the envelope of historical experience. Such an amount might be used to increase tax and money laundering cases by roughly 200 per year and would necessitate roughly 250 additional tax agents. This represents a roughly 10 percent increase in tax and money laundering cases at 2001 levels. But, more importantly, this increase is within the range of historical CI experience. According to the simulations, general deterrence could rise by over one billion dollars as a result of the \$25 million allocation to cases processed by CI.

V. Conclusions

For tax evaders, money launderers, and those involved in fraudulent tax schemes these are heady times indeed. Even for the average taxpayer there is perhaps no better time to play the tax lottery than today. The odds of getting away with low levels of tax cheating are better now than ever. Of course, this is not a recommendation for tax non-compliance. The worry is that our tax system is quite fragile because such a significant portion of taxes paid are paid by taxpayers who voluntarily comply with the tax laws. Could the situation get worse? In all likelihood the answer is yes. Taxpayer non-compliance can continue to grow if taxpayers feel that the system is simply unfair or if they are undeterred by the threat of audit or penalty.

And yet it's possible that the "times they are a-changing". The IRS has recently introduced its National Research Program which replaces the defunct Taxpayer Compliance Measurement Program (gone for the last 13 years). The NRP and TCMP are both designed to randomly audit a representative sample of taxpayers and turn them upside down in a detailed and excruciating line-by-line review of their tax records. The purpose of these specialized audits is to develop detailed information which allows calibration of formulas ("scoring rules") to predict tax cheating from observable characteristics in the population at large. A change in political administration might also resurrect the IRS enforcement programs. Republicans are generally believed to prefer lower levels of enforcement for all forms of regulation and consequently are not known for advocating increased IRS funding (note that IRS budgets and enforcement levels have, nonetheless, dropped through decades of mixed ideology). My prescription is not a popular one. However, with more tax enforcement and requisite budget increases, I remain convinced that the IRS can go from "Lost" to "Survivor".

Notes:

1. Jeffrey A. Dubin is Visiting Professor of Economics on leave from the California Institute of Technology. This article is based on research recently completed for the IRS CI division. The complete study is available from <http://www.irs.gov/pub/irs-soi/04dubin.pdf>. Dubin requests that no one kill the messenger.

2. Let $dALR$ denote the change in assessed liability per return for a change in the audit rate of $dIAR$. Similarly, let $dRTR$ denote the change in reported tax liability per return for the same change in audit rate $dIAR$. The change $dALR$ is the total revenue effect (since it includes both reported amounts and additional taxes and penalties) and $dRTR$ is the indirect effect. The direct effect of audits is defined as $dALR - dRTR$. Since $ALR - RTR$ is a measure of additional taxes and penalties, $dALR - dRTR$ is simply the change in additional tax and penalties resulting from the audit change. Consequently, it is the direct effect. The spillover measure is the ratio $dRTR/dALR$ since it measures the percentage of the total change that occurs from general deterrence as a result of the change in the audit rate.
