## Criminal Investigation Enforcement Activities and Taxpayer Noncompliance

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Summary

Paper prepared for 2004 IRS Research Conference Washington, D.C. June 2004

This paper tests empirically whether measurable activities of the IRS Criminal Investigation Division (CI) affect taxpayer compliance. The methodology used in this paper extends the approach first published in Jeffrey Dubin, Michael Graetz, and Louis Wilde in "The Effect of Audit Rates on the Federal Individual Income Tax, 1977-1986," (1990) (DGW). The DGW method can determine both specific and general deterrence effects associated with CI activities, as well as the effects that audit rates have on taxpayer compliance. Although the general deterrence effects of audits had been widely acknowledged, the IRS never reported the "spillover" benefits of audits (the increase in collections from taxpayers, whether or not audited, who report more taxes due in response to an increased likelihood of an audit). DGW's principal innovation was to directly estimate taxes due, rather than first attempting to construct a noncompliance measure and then extrapolating from noncompliance to revenue. The empirical analysis in DGW was based on two econometric models that are estimated using a state-level time-series cross-section data set for the years 1977-86. One model specified reported taxes per return filed as a function of audit rates and a variety of socioeconomic factors. The other model specified returns filed per capita as a function of the same variables.

This study begins by replicating the original DGW analysis using newly collected data for the explanatory factors and extending this model to include factors that measured CI activity. The time period covered by the new model is 1988-2001. I introduced variables for the percentage of tax sentences resulting in prison, the percentage of tax sentences resulting in probation, the percentage of money laundering sentences resulting in prison, and the percentage of money laundering sentences resulting in probation. I found that CI activity was a strongly significant determinant of tax compliance. I was not able to conclude that greater or fewer tax or money laundering cases would raise tax compliance. Nor was I able to find specific media effects even though evidence emerged that media was an important component in CI's role with respect to fostering tax compliance. Media coverage information was not found to be statistically significant due, perhaps, to the short time-frame in which detailed media information was available.

I reach several conclusions. First, I find 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, media attention shows some weak evidence of increasing compliance, at least among money laundering cases. However, it is logical to think that media attention plays an important role in disseminating information to the public. The range of media attention or the time span that we

studied may have been too limited or too short to detect the media's role. At present, my results are not refined enough to distinguish types of media coverage. Nevertheless, the significant magnitude of general deterrence results implies that media plays a large role in CI cases. Finally, I 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.

I also performed two basic simulations to determine the direct revenue (spillover) effect of audits and ascertained which CI activities return more "bang for the buck." Following the methodology established in DGW, I calculated the predicted increase in total assessed liability for a particular year that would result from holding audit rates at their earlier period (higher) levels. I then calculated the effect of this audit rate change on reported liabilities (excluding additional taxes and penalties resulting from IRS examinations). The difference between the two estimates represents the direct revenue effect of the increase in audit rates. I also consider similarities in which I doubled the audit examination rate and the number of CI sentences.

I find that the direct effect of doubling the audit rate on assessed tax collections (reported amounts and additional taxes and penalties) is \$18.7 billion. Doubling CI tax and money laundering sentences is forecast to increase assessed collections by \$16.7 billion. I estimate the spillover effects from both audit and CI activities to be approximately 94%. Doubling the audit rate or doubling money laundering sentences produced similar increases in total

collections. Finally, based on historical cost estimates for the unit cost of audits as compared to the unit costs of CI cases resulting in convictions, I find evidence to suggest that the IRS should reconsider its allocation of resources between civil and criminal enforcement, so that CI activities receive a greater share of resources than has been provided up to now.