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## CONTENTS

- 168 Introduction  
**Reuven Avishor, Binh Tran-Nam and Michael Walpole**
- 169 Tax Treaty Treatment of Royalty Payments from Low-Income Countries: A Comparison of Canada and Australia's Policies  
**Kim Brooks**
- 199 Formalism and Contextualism within International Tax Law Analysis: How Traditional Analysis Fails Developing Countries  
**Arthur Cockfield**
- 204 Tax Enforcement for SMEs: Lessons from the Italian Experience?  
**Giampaolo Arachi and Alessandro Santoro**
- 244 Tax Policy for Investment  
**W. Steven Clark**

# Tax Enforcement for SMEs: Lessons from the Italian Experience?<sup>†</sup>

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## ***Abstract***

The paper aims to provide a detailed description and evaluation of the Italian experience in tax auditing and enforcement for SMEs which we believe may have some lessons for developing countries with similar sized shadow economies and large numbers of micro-enterprises. We focus on an audit strategy known as “*Studi di settore*”, which roughly translates as “business sector analyses”, which relies on statistical methods to select the taxpayers to be audited. We show how *Studi di settore* can be used as an audit rule or as a presumptive tax and we compare it with optimal audit rules and with alternative presumptive taxes on the basis of the available evidence for Italy. We discuss whether *Studi di settore* may be a useful policy tool for establishing presumptive taxation for SMEs in developing countries when resources for tax auditing are scarce. A presumptive regime may naturally evolve in a full-fledged audit selection mechanism following the development of the private and public sectors.

## **I. INTRODUCTION**

Taxation of small and medium enterprises (SMEs) has always played a prominent role in the Itm

The Italian *Studi di settore* (*Sds* hereafter) are based on a highly sophisticated statistical procedure which aims at estimating a reasonable turnover value for self-employed workers and firms with turnovers of less than 5m euros a year. *Sds* provides an estimated turnover for each taxpayer, based on a weighted average of a number of variables (costs and structural variables). The weights depend on the business sector and geographical location. If recorded turnover is below the estimated value the taxpayer has the option of reporting the higher value in his tax return. If this option is not exercised the taxpayer is likely to be audited by the tax administration.

Despite the fact that *Sds* is applied to more than 4

depend on (convex)<sup>2</sup> concealment costs. Among the determinants of these costs, Cowell (2003) includes "the size and organisational structure of the firm" since "firms with a more complex organisation are likely to have higher concealment costs: the more people you bring into the plot the greater the security problem that you face and the greater the risk of discovery". This suggests that a smaller firm with a simpler organisational structure will evade more than a larger firm in relative terms (i.e. that there is a negative relationship between firm size and the propensity to evade).

However, Slemrod (2004) challenged the assumption that the degree of complexity may be viewed on a continuum. He draws a line between tax evasion choices of individuals and "closely-held small businesses whose owners' wealth is generally not well-diversified", where the tax reporting decision is not delegated, and those of "large publicly-held corporations". This distinction leads to two different theoretical approaches. For individuals and small businesses the standard model of utility maximization by risk-averse individuals can be maintained, although it should be enriched by considering "intrinsic motivation (civic virtue, or duty to comply). For large publicly-held corporations one may discard the risk-aversion attitude and should focus on the Principal-Agent relationship between shareholders and managers (this line of research is explored in Crocker and Slemrod, 2005). This may mean that large publicly-held corporations are more or less compliant than small and closely-held businesses, depending on how the incentives within these large companies interact with the penalty structure. Overall, the theoretical analyses developed in Cowell (2003) and Slemrod (2004) suggest that, because of concealment costs, there should be a negative correlation between size and tax evasion only within closely-held corporations.

The empirical literature does not provide any clear-cut conclusions. A number of papers found a negative relationship between firm size and tax evasion: Giles (2000) for New Zealand, Sogei (1999), Di Nicola and Santoro (2001) for Italy, and Batra et al. (2003) and Tedds (2005) for a cross-country sample of firms in developed and developing countries. However, there are some studies that provide evidence of a positive correlation between size and tax evasion, such as Rice (1992) which uses a sample of US firms. It is not clear how to weight this contrasting evidence since these studies

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avoidance opportunities in order to report higher incomes in their financial statements (Shackelford and Shevlin, 2001).

More solid conclusions can be reached by considering the strategies for reducing the tax burden through the choice of the organizational form. If self employed individuals are considered to be firms, following the EU definition<sup>3</sup>, and if standard measures of firm dimensions are used (assets, sales proceeds, number of employees) many self-employed individuals would be included in the category of small firms. A negative relationship between size and propensity to evade would then emerge as the result of the fact that many self-employed people deliberately choose this organizational form over working as dependent employees, in order that they can evade taxes. The reasons for this have been extensively analysed in the literature and were recently summarized by Parker (2003, p. 380, and see there for the relevant literature) as: "when workers can switch freely between two occupations" their preference for self-employment would depend on "the discretion that self-employed workers have in declaring their incomes" as opposed to "the relative lack of discretion by employees who are subject to withdrawal of tax." (Parker, 2003, p. 380)



method in selecting taxpayers to audit, but the exact equation of DIF is not known to them.



heavier reliance on statistical methods to select taxpayers to be audited. It was within this perspective that *Sds* was conceived.

Before providing a detailed description of this audit method is it useful to provide some data on the incidence of SMEs in the Italian economy and on their alleged contribution to tax evasion.

#### **SMEs and tax evasion in Italy**

It is well known that one of the peculiar features of the Italian economy is the large share of SMEs. In Ayyagari et al.'s (2005) database, Italy is ranked 8<sup>th</sup> among 53 countries by share of employment in firms with less than 250 employees. What is







## **V. POLICY EVALUATION**

In this section we try to evaluate *Sds*

Third, the variable  $\hat{x}_i$  is a vector of the variables selected via a political process, where the Tax Agency deals with the different business sector representatives. Thus, we can say that the *Sds* are audit selection criteria based on an endogenous and politically-generated threshold.

Let us now focus on the firm's behaviour and, consequently, on the expected (gross) revenue for the Tax Agency. The expected tax (ET) for the single firm  $i$  is given by

$$ET_i = t(\hat{y}_i) + (1 + f)q(\hat{y}_i)[t(y_i - \hat{y}_i)] \quad (1)$$

where  $f$  is the fine if caught evading tax,  $q$  is the probability of an audit and  $y_i$  is the "true" income. If  $t' \geq 0$  and there is no tax rebate for overreporting, it is clear that the firm will never overreport income, i.e.  $\hat{y}_i \in (0, y_i)$  and that it will report no income if the penalty or the probability of audit are too low, i.e.

$$q < \frac{1}{(1 + f)} \Leftrightarrow \hat{y}_i = 0 \quad (2)$$

independent of the value of  $x_j$ . This corner-solution is highly unrealistic, but note

firms above the threshold are not audited and report an income equal to  $\bar{y}$ . As a consequence expected revenues depend on the distribution of actual income. In *Sds* the threshold is set at the difference between actual income and imputed income  $d_i = y_i - \beta \hat{x}_i$ , which can be taken as a measure of profitability: unprofitable firms, i.e. with a negative  $d_i$ , will report their true income and will be audited while profitable firms, i.e. with a positive  $d_i$ , will report the imputed income and will be not audited. This implies that revenues will depend on the distribution of profitability, which, in turn, depends on the vector  $\mathbf{d}$ .

Given that the audit rule implemented through *Sds* is different from the optimal audit rule, expected revenues are not maximized. It will be the case that some poor firms, which should be audited under the optimal rule, will not be audited on the basis of *Sds* since they are highly profitable, and that some rich firms which should not be audited under the optimal rule will be audited on the basis of *Sds*, since they are not very profitable. However, the efficiency loss may be justified since the loss of expected revenues is small compared to the cost of auditing.

tachshiv less similar to a presumptive method of taxation and thus, perhaps, less attractive for developing countries.

**Implementation Issues**

In terms of the implementation of *Sds*, the estimation of the relevant distribution function is necessary, in principle, for both optimal audit procedures and for *Sds*. However, in both cases it is expected that rational taxpayers that find themselves

decreased by about 22%. Indirect evidence of the problem is provided by the effects of a revision of *Sds* for a number of sectors in 2004. This revision introduced an evaluation of the level of reported value added in order to link turnover to income. As Table 2 shows, the revision coincided with a break in the downward trend in 2004. Further, Agenzia delle Entrate (2007) reports that between 2003 and 2004 the turnover reported by a sample of taxpayers subject to the revised *Sds* increased by 3.5% and reported income increased by 4.3% while for taxpayers subject to the old *Sds* turnover increased by 3.3% and income by 1.9%.

The second explanation for the observed decrease in the percentage of auditable firms is related to the method used to estimate parameters. In Section IV we showed that these parameters measure *average* relationship between turnover and the vector of relevant independent variables for a subset of firms belonging to the same cluster and satisfying a given 'consistency criterion'. More precisely, they are estimated by running a regression of turnover on independent variables limited to 'consistent firms' on data reported by the firms themselves. To the extent that firms manipulated the reported data to pass the consistency test, increasing the subset of firms used for the regression, the estimated average relationship (regression coefficient for the subset of consistent firms) had converged to the average relationship reported in the whole set of firms belonging to the same cluster. As a result it became easier for all firms in a



available at [http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/SME\\_globe.pdf](http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/SME_globe.pdf).

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