# Cost-Benefit Analysis of Presumptive Taxation

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Most of the literature on presumptive taxation limits its application to the less-developed economies. In this paper I argue that presumptive taxes are well entrenched in the modern world, although usually not classified as such. Presumptive taxes can take many forms, and can be incorporated in sections of a tax law that is not generally presumptive. The difficulties that developed economies face collecting tax revenues, the rising fear of an intrusive government, and efficiency considerations may all portend a larger role for presumptive taxation – whether or not so designated – in the developing and developed economies.

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## 1. Introduction

Most of the literature on presumptive taxation limits its application to the less-developed economies. In this paper I argue that presumptive taxes are well entrenched in the modern world, although usually not classified as such. Presumptive taxes can take many forms, and can be incorporated in sections of a tax law that is not generally presumptive. The difficulties that developed economies face collecting tax revenues (Gordon and Li, 2005; Slemrod, 2007), the rising fear of an intrusive government, and efficiency considerations may all portend a larger role for presumptive taxation – whether or not so designated – in the developing and developed economies.

The general idea is the following: Any tax authority that respects basic human rights has to impose taxes according to a definite base in order to avoid random and arbitrary taxation. The tax base should be announced prior to the imposition of the tax, thus giving taxpayers advance warning. This warning enables the taxpayers to adjust the tax base accordingly. This adjustment of the tax base by the taxpayer is causing the excess burden of the

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tax.[1] Retroactive taxes, that is, taxes imposed on tax bases determined in the past and that therefore cannot be changed by the taxpayers, are considered unethical. Although the determination of the tax base is just the first stage in the taxation process (tax liability being determined by applying a rate or a schedule of rates to the base), most of the complications that arise in taxation and are responsible for administrative and compliance costs arise in the determination of the tax base.[2]

I define a tax as presumptive if there is a gap between the tax base as stated in intent of the tax law (the ideal base) and the base used in the implementation of the law (the presumptive base). In other words, presumptive taxation exists whenever the legislator is using one tax base in order to approximate another. The tendency to use one tax base to imitate another arises only in the presence of complications like asymmetric information, transaction, compliance, and administrative costs that make the direct way of applying the tax law too costly to implement. In practice, the legislator may be well aware that the ideal base is hard to measure or to verify, or that it can be easily hidden from the tax inspector, or that it is too costly to identify or to measure. In these cases a proxy that is easier to verify may be used. In some sense, even the income tax can be considered presumptive, in that the ideal base is ability to pay, but that is impossible or too costly to verify because components of well-being such as leisure and willingness to search for a job cannot be easily ascertained. Hence income rather than ability to pay is used as a tax base.[3] Clearly, in developing countries it is harder to determine income, and therefore one expects presumptive taxes to be used more than in a developed world. But, as I will argue, the use of presumptive taxes is also widespread in the developed world.

Since the intention of the legislator is not always well defined or well known, it may happen that some researchers consider a tax law as presumptive while others do not. In other words, the same tax can be viewed as presumptive or nonpresumptive, depending on the interpretation of the purpose of the tax law. Consider as an example the capital gains tax. If the intention of the legislator is to tax accrued capital gains but, due to the prohibitive cost of determining the tax, he imposes a tax on realized capital

1 However, tax laws prohibit the adjustment of the tax base in order to avoid taxes. That is, a transaction whose main purpose is to avoid paying taxes is considered as an artificial transaction and is illegal.

2 The other major source of difficulties is in collecting the taxes. The problems of actually collecting the tax are beyond the scope of this paper.

3 The different treatment of earned income, and the separate taxation of earned income of spouses are indications that the legislator takes into account the leisure sacrificed to earn the income. Hence, they can be interpreted as evidence that ability to pay is the intentional base of the income tax.

gains, then we will classify the capital gains tax as presumptive. If, however, the purpose is to tax realized gains, then the tax is not presumptive.

A necessary condition for the existence of a presumptive tax is that the legislator has some objective in mind in addition to collecting revenue: If the target is only to collect tax revenue, then any tax base will do. The additional objective can take several forms, such as reducing the social cost of taxation or changing the income distribution. The difficulty in applying the tax that the legislator has in mind causes him to use a base that is different from the ideal base. Most presumptive taxes are related to the income tax, where the additional objective is to improve the income distribution.

The structure of the paper is the following: The next section surveys different forms of presumptive taxes. The third section illustrates the kind of presumptive taxes that have existed in Israel, based on a rare publication in which tax authorities described methods to determine how reasonable the declared income is. The fourth section considers the pros and cons of presumptive taxes in a developed economy. The fifth section applies the marginal-cost-of-public-funds criterion in order to formally compare a presumptive tax with a standard income tax.

## 2. Forms of Presumptive Taxes[4]

One of the major reasons for using presumptive taxation is the lack of costless information for one of the parties, usually the government. However, the role of the government differs in taxation from its role in transfer payments or welfare programs. In the former case the government is on the receiving side, while in the latter it is on the giving side. When the government is the recipient, the taxpayer may claim that he or she is not able to pay the taxes without destroying his business or his family. The government then has to prove the taxpayer's ability to pay. Ability to pay, as a basis for determining tax liability, should be interpreted as including both *means to pay* and *liquidity to pay*. That is, the process of taxation should not make the business disintegrate or force it into bankruptcy.[5, 6] This is one of the

4 Bulutoglu (1995) and Rajaraman (1995) offer an excellent description of the kind of presumptive taxes that are utilized in developing countries. Balestrino and Galmarini (2005) discuss an Italian version of a presumptive tax. A comparison of the different methods is called for. However, such a comparison requires knowledge of the nuts and bolts of each tax, which is beyond the scope of this paper.

5 The rule used by tax administrators is that one does not kill the hen that lays the eggs. For example, tax authorities ought not to force an old person to sell a house to pay the property tax and are not supposed to force a stockholder to sell some of his stocks if it means losing control over the firm. Of course, defining "force" is not straightforward and is not a task that the economic theory of taxation has addressed.

6 I ignore cases of criminal behavior like tax evasion or tax fraud.

advantages of sales taxation relative to property taxation. A sales tax involves the use of money or the equivalent of money. The mere fact of using money is a proof of liquidity. Thus an ability to pay, without destroying the business, exists. When property is taxed, there is always the danger that the owner will be forced to sell the property in order to pay the tax due.[7] On the other hand, when the government is on the giving side, there is no question about the citizens' ability to pay. In this case, it is easier to apply *tagging* – i.e., to classify the population of potential receivers into easy-to-observe categories and pay them according to this classification.[8] This way, administrative and compliance costs caused by the need to check every receiver are saved. [9]

We first list the most typical forms of presumptive taxes. Later we describe their properties:

(a) Creating a discontinuous tax base from a continuous one. (Sometimes this is referred to as the use of categorical data.) Examples of this case include the use of tagging (Ackerlof, 1978; Immonen et al., 1998) or depreciation schedules for assets. In the case of tagging, the ideal tax base may be a continuous variable that is easy to manipulate. The legislator defines a tax base that is closely associated with the continuous one by restricting it to categories. For example, instead of defining a continuous schedule for depreciation, assets are classified into three categories and for each category a specific and arbitrary schedule is defined.[10]

(b) Potential income. Potential income is a rough estimate of what an asset or a business could have earned assuming regular circumstances. However, in a risky world, the potential income is a random variable, which also depends on the risk aversion of the owner. In the case of an asset one can use as potential income the return on a risk-free investment (Sadka and Tanzi, 1998; Tanzi, 1991; Faulk, Martinez-Vazquez, and Wallace, 2007). As with other presumptive taxes that do not tax an individual's effort, risk bearing in the case of potential income is tax-free – that is, it is neither taxed nor subsidized. Another example is the Israeli method of

7 For the argument to be considered, it is sufficient that the owner claims that he has to sell in order to pay the tax.

8 Another distinction in applying tagging in welfare programs versus taxation is concerned with the stigma of being classified into a group. See Jacquet and Linden (2006).

9 It should be emphasized that the government can be on the giving side, even when we are dealing with taxes. For example, the deductions and exemptions in the American income tax law put the government on the giving side.

10 There is nothing that prevents the tagging variable from being continuous. Our argument is that to determine a discrete variable is easier than to determine a continuous one because the level of accuracy needed for determining a discrete variable is lower than the one needed for determining a continuous one. However, exceptions do exist. The milage driven by a taxi and the electricity used by a laundry can be used as continuous tagging variables.

*tachshiv* applied for the self-employed in Israel (Ministry of Finance, Income Tax Authority, 1992), which will be described in section 3. An additional example is the treatment of closely held businesses under the Scandinavian dual income tax, in which Parliament decrees an imputed rate of return to impute taxable capital income.

(c) A floor or a ceiling. The typical case is the standard deduction: a minimum amount of deductions, to which every taxpayer is entitled, intended to reduce the burden on the taxpayers and the tax authorities. Anyone who claims higher deductions has to list them and is subject to inspection (Slemrod and Yitzhaki, 1994). In this respect the standard deduction is similar to the *tachshiv,* although it works in a reverse way. In the *tachshiv* the taxpayer is required to pay a certain amount of tax. Anyone who considers it too heavy is entitled to keep a bookkeeping system and is subject to inspection. Another example is the alternative minimum tax. In this case, the taxpayer is required to pay a minimum tax, irrespective of his claimed profits. The minimum tax is similar to a tax on a potential income.

(d) Using relatively easy-to-measure inputs and other observable characteristics of the business to estimate income. This crude estimate is then used as a base for the income tax instead of the actual income. In effect, this becomes a tax on the properties used to estimate income. Instead of directly taxing income, the tax is imposed on key inputs and other observables. The more highly these observables correlate with income and the lower the ability to find substitutes for them, the lower the excess burden of the tax. The fewer substitutes for key inputs, the better.

It is worth mentioning that presumptive taxes can rely on a mixture of the above categories. For example, in creating a discontinuous tax base from a continuous one, one can take into account the potential income in each section of the continuous variable.

## 3. Potential Income for the Self-employed – the *Tachshiv*

For many years the major method of determining the tax liability of small businesses and the self-employed in Israel[11] was the *tachshiv* system.[12] This method of assessing income began in Israel in 1954 and officially ended in

11 The definition of a small business by the tax authorities is according to potential revenue, number of workers, and other properties of the business.

12 A description of the method for the English reader can be found in Wilkenfeld (1973). Wilkenfeld (1973, p. 144, footnote 7) writes: "The Hebrew term *tahshiv* (pl. *tahshivim*) is difficult to translate literally into English. A literal translation might be 'calculator,' which does not accurately convey the sense intended. Accordingly, 'standard assessment guide,' a freer but more meaningful term has been used."

1975, when a public income tax reform committee (the Ben-Shahar Committee – see Ben-Porath and Bruno, 1977) recommended abolishing the system and replacing it with a general requirement that businesses maintain bookkeeping and, for retail businesses, electronic cash registers. The recommendation was accepted by the parliament and the tax authorities, and – at least officially – the *tachshiv* was not used subsequently. However, it seems that the system continued to be unofficially used by the tax authorities, at least in cases where it was suspected that the bookkeeping system did not reflect the true nature of the business.[13] Moreover, in 1992, prior to the 1991-fiscal-year deadline for submission of income tax returns by the self-employed, a publication appeared, by a private publisher, that included the recommendations of the tax authorities for the self-employed, explaining the method by which the tax authorities determine how "reasonable" an income declaration is (Ministry of Finance, 1992). The preface promised future updates and the future publication of a complete guide for the self-employed, but as far as I know, this never happened. The 1992 publication includes the assessment of income of small businesses in 130 economic branches, and within each branch a description of the parameters used by the authorities. The publication's aim was to instruct self-employed individuals about what the tax authorities expect in terms of declared tax, for their tax declaration to be approved. This publication is an indication that although the *tachshiv* system was abandoned officially, it was still at work unofficially, even fifteen years after its formal abolition.

I will illustrate the guidelines of the *tachshiv* for four types of small businesses – restaurants, flower shops, fruit and vegetable stores, and gas stations (Ministry of Finance, Income Tax Authority, 1992).

**Restaurants**: Distinctions are made between exclusive, special, Europeans', fish, Middle Eastern, vegetarian, Chinese, fast-food, and blue-collar workers' restaurants. The first section describes how to classify a restaurant among those groups [opening hours, peak-time attendance, duration of customers' stay (the longer they stay, the better the restaurant), type of customers' clothing, quality of service, type of furniture, and kind of menu served]. Within each classification group, gross revenue per waiter is estimated to be within a certain range, depending on a subclassification of cities and neighborhoods. In order to calculate profit, the outlay on food purchase is estimated to be 25–30% of the revenue. Furthermore, a classification of workers is also provided: eight hours' work for a waiter is considered as a day; an owner without

13 The most common method for discarding the bookkeeping system is an inspector, disguised as a customer, who pays for the service and comes back later to investigate the books.

partners is considered as a waiter; if there are several partners, then a deduction of half a worker is allowed, while a spouse is considered as half a waiter. Profit is calculated by allowing a deduction of a certain percentage (depending on the type of restaurant) for materials.

**Flower Shops**: These are classified into three types of stores, depending on their selling rare flowers or potted plants and whether they prepare floral arrangements (bouquets). The gross revenue per worker is then given, with a spouse considered as half a worker. The profit is a percentage of gross revenue. The specific percentage is specified for each type of store.

**Vegetable and Fruit Stores**: These are classified into nine categories according to the type of city or neighborhood and the variety of products. For each type an estimate of gross revenue is given. Sources from which stores buy the products are divided into two categories: organized and nonorganized, with a higher profit margin in stores with nonorganized suppliers.

**Gas stations**: Gas stations have nine different sources of income. Data on the amounts of different fuels bought are gathered from the suppliers. Then a profit factor is given for each source of income – including other buildings in the station that are used as different stores.

The above examples are intended to show the details of how the *tachshiv* analyzes the sources of profits, taking into account the different arrangements and market structure. We can classify the types of variables that enter into the calculations. Some of them can be considered as capital investment or fixed costs (location, type of restaurant, look of the store, and type of service given), while others are related to variable costs (number of workers and type of workers).

As far as I know, the only serious attempt to analytically model the effect of using the *tachshiv* instead of a bookkeeping system was done by Finkelshtain (1985). His analysis was restricted to the factors affecting the decision of the owner of a family farm whether to work on the farm himself or, alternatively, hire an employee and seek employment off the farm. The model included the effect of inputs that the tax authorities use for calculating the revenue in the *tachshiv* and those that are not so used (which can be viewed as exempted from taxation). Because the deadweight loss caused by switching from one system to the other is sensitive to elasticities of substitution between the implicitly taxed and implicitly untaxed inputs, it is impossible to come up with a clear conclusion about the impact of switching from one method to the other. Hence, we refrain from modeling and simply list the advantages and disadvantages of the *tachshiv* system.

## 4. Advantages and Disadvantages of the *Tachshiv*

### 4.1. Advantages

In some sense, the tachshiv is a sophisticated method of tagging applied to taxation (Akerlof, 1978). The tax authorities define categories that are correlated with the expected revenue of the business. The preferred properties of the categories, in addition to being correlated with the revenue, are that they are easy to observe (location, economic branch, opening hours, type of suppliers and customers). Some categories are specific to the type of business, market structure, and economic branch considered. For example, in agriculture, the amount of cultivated land and the type of produce are used to determine the expected revenue; electricity bills and water bills are used whenever the business relies heavily on these inputs (laundries, woodworking); and whenever there is a physical indication of the activity of the business (miles driven for taxis), it is also used. Within those categories, a set of measurable, easy-to-observe inputs is used to fine-tune the calculation of the revenue of the business and to adjust it to the specific business (number of workers, usage of electricity and water when relevant, materials that are supplied by large companies – e.g., gasoline in a gas station).

If a business agrees to pay the tax according to these criteria, its tax declaration is accepted without further investigation. If, on the other hand, a business claims that the income generated from the business is below this threshold, a full investigation of the records is carried out. Therefore, businesses that are filing for tax relief have to support their claim with the required evidence. If, on the other hand, the business pays the tax required, no investigation is carried out and the tax due is final.

In some simplistic sense the method is similar to a standard deduction that is applied to different groups of taxpayers. For each category of taxpayers [e.g., adjusted gross income (AGI) group] a "reasonable" level of deductions is allowed as a standard deduction. Anyone who claims a higher level of deductions is allowed to list the deductions. Anyone who wants to take the escape route of the specific standard deduction is entitled to use it. (Note that for many years the U.S. standard deduction was a percentage of AGI.)

Another way of presenting the *tachshiv* is as a maximum tax of choice. The business is given the option of paying a given tax, and on doing so, it is not bothered by the tax authorities. If the business manager thinks that the tax is too heavy, he/she has the option of following all the tax regulations in order to be taxed according to the income tax law. Some readers may associate the *tachshiv* with a zero marginal tax rate on high-income groups (Sadka, 1976). We argue that the similarity is superficial. The justification under Sadka's (1976) regime is that once an income is known, there is no reason to impose

a marginal tax rate as well. Under presumptive taxation the tax authorities set a semi-lump-sum tax in order to save compliance and administrative costs. Another way of presenting the presumptive tax is as the mirror image of the minimum-tax law. Under the minimum-tax law all businesses have to submit tax declarations and records and are investigated. If the tax due turns out to be too low, then the minimum tax is applied. In a presumptive tax regime no business is required to submit records, but if a business claims that the tax is too high, it must submit its records for an investigation.

In what follows we list the advantages and disadvantages of the presumptive method according to several criteria discussed in public finance (see, for example, Alm and Wallace, 2004; Slemrod and Yitzhaki, 2002).

**Accuracy:** Presumptive taxation is less accurate than the classical tax based on a bookkeeping system, and as such it violates the principle of taxation according to ability to pay. However, the violation is moderate. That is, provided that the classification of businesses is sufficiently fine, the violation is within groups but not between groups. In a way it is reminiscent of administrations with errors in taxation as described in Stern's (1982) paper. However, the "errors" are planned, so that the justice is rough justice. By changing the required tax, the administration can influence the number of small businesses that rely on record keeping. Hence, the tax administration can increase or decrease the number of businesses that are using the *tachshiv*.

**Horizontal Equity:** One can argue that presumptive taxation violates horizontal equity, since equally well-off taxpayers may pay different taxes. On the other hand, it seems reasonable to say that the tax is imposed on the characteristics of the business. This property does not violate horizontal equity, in the sense that businesses with similar characteristics are taxed similarly.[14] However, while it does not violate the principle of horizontal equity within a single type of businesses, it may well violate it between economic branches. An anonymous referee argued that horizontal equity means that "individuals who are equal in all the relevant traits should be treated equally." He/she stated that "I would rather list the difficulty of attaining this form of equity as one of the *disadvantages* of presumptive taxation." As far as I can see, the issue raised by the referee is similar in nature to the controversy between consumption and income taxation. The question is how to define "equal in relevant traits" – is it according to the resources they "take" from society, i.e., inputs, or according to their output? I would leave this issue as an open question.

14 One may argue that horizontal-equity considerations should not be applied to businesses. However, in this case of small businesses the business may be identified with the owner.

**Efficiency:** To see the kind of considerations that one has to deal with, imagine the following hypothetical income tax law. Assume that instead of a continuous tax function the legislator enacts a tax schedule that is a step function: that is, the tax is constant within brackets, but when the taxpayer moves to a higher income bracket, the tax jumps to a higher constant. Taxpayers can be divided into two groups: those whose set of possible optimal points is limited to one income bracket, and those whose relevant set spans two or more income brackets. The former group faces a zero marginal tax rate; therefore we can view the tax on this group as a lump-sum tax, with zero efficiency cost. On the other hand, having an optimal set that spans several brackets implies that the taxpayer is indifferent among several choices of leisure, and the decision to move from one optimal point to another may be responsible for the excess burden of the tax. Hence, the deadweight loss of a discontinuous tax can be higher or lower than the deadweight loss of a continuous tax. A similar case exists under presumptive taxation, because such a tax imposes a zero marginal tax rate on some taxpayers and a high marginal rate on others (for example, those who consider hiring an additional worker). Moreover, as is well known, the excess burden is not a concave or a convex function when tax rates (the constants) are optimally chosen. Hence, the only quantitative method of analysis is a simulation, and the results will depend on the parameters chosen and on the assumed distributions of taxpayers. In any case, presumptive taxation may include as a possibility the regular tax base, so that if it is chosen optimally, the excess burden of the presumptive tax cannot be higher than the excess burden of a regular (continuous) tax schedule.

**Simplicity and Compliance Costs:** The presumptive tax enables a small business to avoid the complicated bookkeeping system that may be redundant for running it and is only needed to satisfy the regulations of the tax authorities. Moreover, when there are books, there is a temptation to tamper with them. Therefore, the presumptive tax leaves bookkeeping as a choice variable for small businesses, and this simplifies compliance with the tax law. I believe that the compliance cost is the crucial factor in determining the desirability of presumptive taxation. If we accept that bookkeeping systems and record keeping are essential for running (small) businesses, and the only reason for not using them is the resulting opportunity to evade taxes, then presumptive taxation cannot be justified. If, on the other hand, we accept that a small business does not need a bookkeeping system and that the only reason it uses one is that the tax authorities require it, then presumptive taxation can help small businesses compete with large businesses. Since the burden on the small

business is composed of both the tax cost and the compliance cost, it may happen that the lion's share of this burden is the latter.[15] To sum up: the major advantage of presumptive taxation is in reducing the bureaucratic burden on the taxpayer. Therefore, we should expect it to be applied in areas where the burden of reporting is large relative to the gain in tax collected.

**Equal Opportunity:** Presumptive taxes, provided that the regulations are announced well in advance, give an equal opportunity to choose the appropriate way to run the business. In some sense it is similar to being incorporated. By being incorporated, the taxpayer decides which mode of taxation better suits him. By implementing presumptive taxes on small businesses, another choice variable is added: pay a given amount of taxes and run your business without intervention.

**Administrative Cost:** On top of reducing the compliance cost, presumptive taxation will also reduce the burden of administrative cost. It allows the administration to invest in "profitable" activities (see, for example, Romanov, 2004).

### 4.2. Disadvantages of Presumptive Taxation

There are several disadvantages to using presumptive taxes. The weight to be attached to each of them depends on the specific case analyzed. The major issue is that the tax seems arbitrary. To reduce this feeling the tax authorities have to convince the general public and experts in each field that the tax is fair. To this end, they must find out the rigid parameters that determine the income that can be generated from a business. This requires investing resources to analyze tax returns. This is the major weakness of the tax and I will elaborate on it later.

**Progressivity**: Presumptive taxation can be viewed as imposing a ceiling on the tax. Therefore, it reduces the *ex post* progressivity of the tax, at least within each category of taxpayers. However, since the tax authorities can determine the tax, they can mitigate this effect. Another factor that affects progressivity is the burden of proof. To see this, consider the following tax. Assume that a head tax is imposed. The impediment to imposing such a tax is that some of the taxpayers cannot pay it simply because the tax imposed is higher than their income. The reaction of the tax authorities is that anyone who declares that he/she is not able to pay will be investigated and therefore

15 Sandford (1995) offers estimates of compliance costs for different countries, taxes, and businesses.

should supply the appropriate documentation. Clearly, the compliance cost will have a regressive bias. In some sense this is the case of presumptive taxation. For anyone who is paying it, it seems like a lump-sum tax, while those who are unable to pay have to prove the inability to pay. The trade-off for the legislator is between the level of the tax and the size of the group the administration has to investigate. The higher the tax imposed, the larger the group that should be investigated. In addition, a great deal of effort should be applied to finding out the appropriate cutting point.

**Updating the parameters:** The previous section described the *tachshiv* as a reasonable method of taxation. The curious and suspicious reader may rightfully ask why a committee of prominent economists (Ben-Shahar Commission, 1977) decided to abolish the method and to insist that all taxation be based instead on cash registers and record keeping. One reason is that the method is only as good as the system of determining and updating the tax parameters. The usual procedure was that the research unit of the tax authorities analyzed data from businesses and gathered additional information from public and economic intelligence sources on the different types of businesses. However, to ease the acceptance of the tax by the taxpayers and to prevent a large number of itemized filings, they negotiated the tax with representative organizations of businesses to reach agreed-upon taxes that were also recommended by the representatives. Those agreements raised the public's suspicion that the tax was affected by lobbyists and politicians. This was one of the major reasons the public income tax reform committee (Ben-Shahar Commission; see Ben-Porath and Bruno, 1977) recommended abolishing the system.[16] An additional reason for the recommendation was the view held by some members of the committee and the public in general that the American system of self-assessment is the "modern" tax approach and therefore, to be modern, the country should imitate the U.S. In addition to abolishing the *tachshiv*, the committee also recommended across-the-board filing of income tax declarations. This recommendation continues to surface from time to time as a proposed reform to the Israeli tax system.[17] My

16 Note that without such agreements, the method can be viewed as arbitrary, creating feelings of resentment among the taxpayers. On trust between tax authorities and taxpayers, see Feld and Frey (2002).

17 Unlike the U.S. law, the Israeli tax law allows only a modest number of personal deductions, exemptions, and credits. Furthermore, the Israeli law does not allow the taxpayer to choose the amount deducted at source, and unless the taxpayer received a permission the deduction at source is done at the highest marginal tax rate. Hence, the tax authorities treat across-the-board filing as a revenue-losing proposal. On the other hand, those who recommend across-the-board filing do not explain why a system that is not capable of handling the self-employed and about ten percent of the highest-salaried taxpayers can successfully handle the whole country. The usual justification for such a suggestion is that

own view, based on the casual impression I get from the political economy of taxation in my country, is that there is a lobby composed of tax administrators, accountants' organizations, and tax advisors, which favors complicated tax laws. Such laws increase the business and the importance of "good tax advice," which may explain why a lobby composed of experts on both sides of law implementation favors complicated tax rules. However, a normative view of the complexity of tax laws should also take into account that the business of giving tax advice is part of the social cost of taxation and therefore should be reduced as much as possible.

## 5. A Scorecard for a Presumptive Tax

To see the considerations involved in evaluating the worthiness of presumptive taxation, let me consider replacing an income tax with a presumptive income tax using the marginal-cost-of-funds framework, as presented in Slemrod and Yitzhaki (2002).[18] The marginal costs of funds $MCF_i$ as composed of two components:

$$MCF_i = DC_i \times MECF_i, \tag{1}$$

where $DC_i$ is Feldstein's (1972) distributional characteristic of the tax instrument, and $MECF_i$ is the marginal efficiency cost of tax instrument $i$. I consider two tax instruments: The regular income tax (denoted by $R$), and the presumptive tax (denoted by $P$). Let $DC_R$ and $DC_P$ represent the distributional characteristics of the regular income tax and the presumptive tax, respectively.

The $MECF$ that includes administrative, compliance, and excess burden is

$$MECF_i = \frac{\gamma(X_i - MR_i) + C_i + MR_i}{MR_i - A_i}, \tag{2}$$

where $\gamma$ is the social value of the utility the taxpayer is sacrificing at the margin in order to save a dollar of taxes, $C_i$ is the marginal private compliance cost associated with the $i$th instrument, $A_i$ is the marginal administrative cost, and $MR_i - A_i$ is the net revenue collected at the margin. The intuitive interpretation of the expression is the following: The potential additional

taxpayers will hesitate to sign a false document. The problem of how to handle a case in which a significant number of taxpayers will sign empty or false documents is not mentioned in public debates.

18 One may argue that a marginal framework is not applicable for analyzing such a change. I would argue that any change that does not dramatically change the marginal utility of individuals can be safely analyzed using a marginal analysis. It is assumed that replacing the regular income tax with a presumptive tax for small businesses is not going to dramatically change the economic status of the owners of those businesses.

tax from changing parameter $i$ is $X_i$, the difference $X_i - MR_i$ is leaked at a social cost of $\gamma$ per dollar, $MR_i$ is collected by the government, and $C_i$ is the additional involuntary compliance cost. Hence, the total burden on society is the sum of those components. Of the $MR_i$ collected by the government, $A_i$ in additional resources is spent on administering the tax, leaving $MR_i - A_i$ in the coffers of the government. The $MECF$ is the burden on society divided by what is collected after subtracting the cost of doing business. This yields the marginal social cost of a dollar collected. (For a full description of the framework, I refer the reader to Slemrod and Yitzhaki, 2002.[19])

Next I qualitatively compare $X_R$, $MR_R$, $C_R$, and $A_R$ with $X_P$, $MR_P$, $C_P$, and $A_P$. I assume that tax bases are equal, that is, $X_R = X_P$. We expect $A_P < A_R$, because the administrative costs associated with running the presumptive tax are lower than the administrative costs associated with the regular tax.[20] A key factor in determining the worthiness of the presumptive tax is the compliance costs. If record keeping is considered as essential for running the small business, then it is not considered as part of the compliance cost and therefore the difference between $C_P$ and $C_R$ need not be large. On the other hand, if the record keeping is done mainly for the purpose of complying with the tax law, then $C_R >> C_P$. $MR$ is the marginal tax collected. If the choice of the tax base for the presumptive tax is based on inputs and characteristics that are hard to change without changing the profitability of the business, we expect $MR_P > MR_R$. [21]

Finally, $DC_P > DC_R$, because the distributional characteristics of the presumptive tax tend to be worse than those of the regular tax. (The presumptive tax rate tends to be lower on efficient, and thus higher income, taxpayers). To sum up, when replacing a regular income tax with a presumptive tax we should expect the following changes in the $MCF$:

$$MCF = DC \uparrow \times \frac{\gamma(X - MR \uparrow) + C \downarrow + MR \uparrow}{MR \uparrow - A \downarrow}, \tag{3}$$

where $\gamma$ is the social value of the utility the taxpayer is sacrificing at the margin, and $\uparrow$ ($\downarrow$) indicates an increase (decrease) in a quantity on moving from a regular tax to a presumptive one.

Looking at equation (3), it is impossible to evaluate the effect of imposing a presumptive tax without a specific plan, because some quantities are moving

19 For an additional detailed analysis see Chattopadhyay and Das-Gupta (2002).

20 Under the presumptive tax there are fewer records to inspect.

21 The marginal revenue depends on the taxpayer having good substitutes for the inputs that are used in the presumptive tax base and, on the other hand, on the ability of the taxpayer to use double bookkeeping and to evade taxes. The lower the marginal excess burden, the higher the marginal revenue is. Since it is assumed that the presumptive tax base has no good substitutes, the ability to use untaxed substitutes for inputs declines. On the other hand, evasion opportunities under the presumptive tax are lower than under the regular tax, making marginal tax revenue higher under the presumptive tax.

in offsetting directions. Our intuitive conclusion is that the results depend crucially on the assumptions concerning compliance and administrative cost. For managing a large business, record keeping is essential, because the large number of workers requires tractability and the allocation of responsibility among employees. For a small business, it may be that record keeping is a luxury that is not essential for running a successful business.

Finally, it is worthwhile mentioning the elements of tax policy that are not included in equation (1). The possibility of political pressure in determining the presumptive tax, and its effect on the morale of taxpayers, are not taken into consideration in the above framework.

## References

Akerlof, G. A. (1978), The Economics of "Tagging" as Applied to the Optimal Income Tax, Welfare Programs and Manpower Planning, American Economic Review 68, 8–19.

Alm, J., and Wallace, S. (2004), Can Developing Countries Impose an Individual Income Tax, Paper Prepared for a Conference on: The Challenge of Tax Reform in The Global Economy, Georgia State University.

Balestrino, A., and Galmarini, U. (2005), On the Redistributive Properties of Presumptive Taxation, CESifo Working Paper No. 1381.

Ben-Porath, Y., and Bruno, M. (1977), The Political Economy of a Tax Reform: Israel 1975, Journal of Public Economics 7, 285–307.

Bird, R. M., and Wallace, S. (2003), Is It Really So Hard to Tax the Hard-to-Tax? The Context and Role of Presumptive Taxation, ITP Paper no. 0307, University of Toronto.

Bulutoglu, K. (1995), Presumptive Taxation, in: Shome, P. (ed.), Tax Policy Handbook, 258–262.

Chattopadhyay, S., and Das-Gupta, A. (2002), The Compliance Cost of the Personal Income Tax and its Determinants, National Institute of Public Finance and Policy, New Delhi.

Faulk, D., Martinez-Vazquez, J., and Wallace, S. (2007), Using Human Capital Theory to Establish a Potential Income Tax, FinanzArchiv/Public Finance Analysis 63, this issue.

Feld, L.P., and Frey, B. (2002), Trust Breeds Trust: How Taxpayers Are Treated, Economics of Governance 3, 87–99.

Finkelshtain, I. (1985), Income Tax in the Family Farm, M.A. Thesis, Department of Agricultural Economics, Hebrew University.

Gordo, R., and Li, W. (2005), Tax Structure in Developing Countries: Many Puzzles and a Possible Explanation, NBER Working Paper no. 11267.

Immonen, R., Kanbur, R., Keen, M., and Tuomala, M. (1998), Tagging and Taxing: The Optimal Use of Categorial and Income Information in Designing Tax/Transfer Schemes, Economica 65, 179–192.

Jacquet, L., and Van der Linden, B. (2006), The Normative Analysis of 'Tagging' Revisited: Dealing with Stigmatization, FinanzArchiv/Public Finance Analysis 62, 168–198.

Ministry of Finance, Income Tax Authority (1992), Economic Guidelines for Determining How Reasonable Is the Income, Ronen Publishing Co., Tel-Aviv.

Romanov, D. (2004), Costs and Benefits of Marginal Reallocation of Tax Agency Resources in Pursuit of the Hard-to-Tax, in: Alm, J., Martinez-Vazquez, J., and Wallace, S. (eds.), Taxing the Hard-to-Tax: Lessons from Theory and Practice, Contributions to Economic Analysis No. 268, Elsevier, 187–214.

Rajaraman, I. (1995), Presumptive Direct Taxation: Lessons from Experience in Developing Countries, Economic and Political Weekly 30, 1103–1124.

Sadka, E. (1976), On Income Distribution, Incentive Effects, and Optimal Income Taxation, Review of Economic Studies 43, 261–267.

Sadka, E., and Tanzi, V. (1993), A Tax on Gross Assets of Enterprises as a Form of Presumptive Taxation, Bulletin for International Fiscal Documentation 47, 66–73.

Sandford, C. (ed., 1995), Tax Compliance Costs: Measurement and Policy, Fiscal Publications, Bath.

Slemrod, J. (2007), Cheating Ourselves: The Economics of Tax Evasion, Journal of Economic Perspectives 21, 25–48.

Slemrod, J., and Yitzhaki, S. (1994), Analyzing the Standard Deduction as a Presumptive Tax, International Tax and Public Finance 1, 25–34.

Slemrod, J., and Yitzhaki, S. (2002), Tax Avoidance, Evasion, and Administration, in: Auerbach, A., and Feldstein, M. (eds.), Handbook of Public Economics 3, Elsevier, Amsterdam, 1423–1470.

Stern, N. (1982), Optimum Taxation with Errors in Administration, Journal of Public Economics 17, 181–211.

Tanzi, V. (1991), Potential Income as a Tax Base in Theory and Practice, in: Tanzi, V. (ed.) Public Finance in Developing Countries, Edward Elgar, Aldershot, 193–209.

Tanzi, V., and Casanegra de Jantscher, M. (1987), Presumptive Income Taxation: Administrative, Efficiency, and Equity Aspects, International Monetary Fund, Working Paper No. 87/54.

Wilkenfeld, H. C. (1973), Taxes and People in Israel, Harvard University Press, Cambridge, MA.

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