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Shlomo Yitzhaki

Georgia State University

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International Studies Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, Georgia 30303
United States of America

Phone: (404) 651-1144
Fax: (404) 651-4449
Email: ispaysps@gsu.edu
Internet: http://isp-aysps.gsu.edu

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Cost Benefit Analysis of Presumptive Taxation[1]

Shlomo Yitzhaki
Hebrew University and Central Bureau of Statistics

1. Introduction

Most of the literature on presumptive taxation limits its application to the less-developed economies. In this paper we 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, 2006), the rising fear from 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 on a base to avoid random and arbitrary taxation. The tax base should be announced prior to the imposition of the tax and therefore, taxpayers are given an advanced warning concerning the tax base. The advanced warning enables the taxpayers to adjust the tax base to the new circumstances so that they can adjust their behavior to the existence of the tax. This adjustment of the tax base by the taxpayer is

[1] I am grateful to Joel Slemrod for many discussions and comments that helped me understand and clarify to myself some of the arguments in this paper.

responsible to the excess burden of the tax.[2] Retroactive taxes, that is taxes imposed on tax bases determined in the past and that, therefore, cannot be changed by the taxpayers are considered as unethical. Although the determination of the tax base is just the first stage in the taxation process- tax liability is determined by applying a rate or a schedule of rates to the base- most of the complications that arise in taxation (and as a result are responsible for administrative and compliance costs) arise in the determination of the tax base.[3]

We define a tax as presumptive if there is a gap between the stated intention of the tax law with respect to the tax base (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 tax base. In the absence of asymmetric information, transaction, compliance and administrative costs we should expect no presumptive tax to be used. However, in practice, the legislator may be well aware that the ideal base is not easy 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 it and therefore a proxy that is easier to verify is used. In some sense, even the income tax can be considered as a presumptive tax if the ideal base is ability to pay and it is simply impossible or too costly to verify ability to pay because components of well-being such as leisure and willingness to search for a job cannot be verified easily. Hence income rather than ability to pay is used as a tax base.[4] Clearly, in developing countries one should expect it to be harder to determine income, and therefore one should expect presumptive taxes to be used more than in a developed world. But, as we 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 will define a tax law as presumptive while others will not. In other words, the same tax can be viewed as presumptive or non-presumptive depending on the interpretation of the purpose of the tax law. Consider as an example the

[2] 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 taxes is illegal.

[3] The other major source of difficulties is in collecting the taxes. The issue of actually collecting the tax is beyond the scope of this paper.

[4] The different treatment of earned income, and the separate taxation of earned income of spouses is an indication that the legislator takes into account the leisure sacrificed to earn the income. Hence, it can be interpreted as taking into account the ability to pay.

capital gains tax. If the intention of the legislator is to tax accrued capital gains but, because the cost of determining the tax base is prohibitive, the legislator imposes a tax on realized capital gains, then we will define 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 is good as any other. The additional target can take several forms such as reducing the social cost of taxation, changing the income distribution or any other target or combination of targets. The difficulty in applying the tax that the legislator has in his mind causes the legislator to use a base that is different from the ideal base. Most presumptive taxes are related to the income tax where the target is also 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 existed in Israel, relying on a rare publication in which tax authorities published methods to determine how reasonable the declared income is. The fourth section considers the pros and cons of presumptive taxes in a developed economy, while the fifth section applies the Marginal Cost of Public Funds criterion in order to formally compare a presumptive tax to a standard income tax.

2. Forms of Presumptive Taxes:[5]

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 is different in the case of taxation from the case of transfer payments or welfare programs. In the former case the government is on the recipient side while in the latter the government is on the giving side. When the government is on the recipient side, the taxpayer can always claim that he or she is not able to pay the taxes without destroying his business or family and therefore the government has to prove an ability to pay by the taxpayer. Ability to pay, as a basis for determining tax liability, should thus be

[5] Bulutoglu (1995) and Rajaraman (1995) offer an excellent description of the kind of presumptive taxes that are utilized in developing countries.

interpreted both as having a "means to pay" and a "liquidity to pay" dimension. That is, the process of taxation should not force the business to disintegrate or to force it into bankruptcy. [6] [7] This is one of the advantages of sales taxation relative to property taxation. Sales tax involves the use of money or the equivalent of money. The mere fact of using money is a proof that the 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.[8] 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., classify the population of potential receivers into easy-to-observe categories and paying them according to this classification.[9] This way, administrative and compliance costs caused by the need to check every receiver are saved. [10]

We first list the most typical forms of presumptive taxes and later we will describe their properties:

(a) Creating a discontinuous tax base from a continuous one. (Sometimes it is referred to as the use of categorical data). Examples of this case include the use of "tagging" (Ackerlof, 1978; Immonen and Kanbour, 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

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[6] The rule used by tax administrators is that one does not kill the hen which lays the eggs. For example, tax authorities ought not to force an old person to sell a house to pay for property tax and are not supposed to force a stockholder to sell some of the stocks if it means changing his control over the firm. Of course, defining "force" is neither straightforward and is not a task that economics has addressed.

[7] We ignore cases of criminal behavior like tax evasion of tax fraud.

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

[9] Another distinction in applying "tagging" in welfare programs vs. taxation is concerned with the stigma of being classified into a group. See Jacquet and Linden, 2006.

[10] 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 put the government on the giving side.

are classified into three categories and for each category a specific and arbitrary schedule is defined.[11]

(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, 2006). Similar to other presumptive taxes, which do not tax individuals' effort, risk-bearing in the case of potential income is tax free – that is it is not taxed nor subsidized. Another example is the Israeli method of "Tachshiv" applied for 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 as too heavy is entitled to keep a book-keeping 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. In this sense 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 used instead of actual income as a base for the income tax. It can be interpreted as a tax on the

[11] There is nothing that forbids the tagging variable to be continuous. Our argument is that to determine a discrete variable is easier than determining a continuous variable because the accuracy required is for determining a discrete variable is lower than the one needed for determining a continuous variable.

properties that are used to estimate income. Instead of directly taxing income, imposing the tax on key inputs and other observables. The higher the correlation of those observables with income, and the lower the ability to find substitutes for those observables – the lower the excess burden of the tax. The lesser substitutes for key inputs the better.

It is worth mentioning that presumptive taxes can rely on a mixture of the above mentioned 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 self-employed – the "Tachshiv"

The "Tachshiv" system[12] for assessment of self-employed income was for many years the major method of determining the tax liability of small businesses and the self-employed in Israel.[13] It began in Israel in 1954 and officially ended in 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 a book-keeping system and, for retail businesses, electronic cash-registers. The recommendation was accepted by the tax authorities, and at least on the face of it – the "Tachshiv" was not officially 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 book-keeping system did not reflect the true nature of the business.[14] Moreover, in 1992, prior to the deadline for submission of income tax reports by the self-employed for the fiscal year 1991, a publication appeared, by a private publisher, which included the recommendations of the tax authorities as a guide to the

[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."

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

[14] The most common method of discarding the book-keeping system is an inspector, disguised as a customer, who pays for the service, and come back later to investigate the books.

self-employed, explaining the method by which the tax authorities determine how "reasonable" the income declaration is (Ministry of Finance, 1992). The preface promised future updates and a complete guide for the self-employed to be published, but as far as we know, there was no further publication. This publication includes the assessment of income of small businesses in 130 economic branches, and within each branch, there is a description of the parameters used by the authorities. The publication was intended to help self-employed individuals to know what the tax authorities expect in terms of declared tax, so that the tax declaration would be approved. This publication is an indication that although officially the "Tachshiv" system was abandoned, unofficially it was still at work, even fifteen years after it was officially abolished.

We will illustrate the guidelines of the "Tachshiv" for four types of small businesses – restaurants, flower shops, fruits and vegetables stores and gas stations (Ministry of Finance, Income Tax Authority, 1992).

Restaurants: A distinction is made between exclusive, special, Europeans, fish, middle-eastern, vegetarian, Chinese, fast-food and restaurants for blue-collar workers. The first section describes how to classify a restaurant among those groups (opening hours, peak-time, duration of customers' stay - the longer they stay the better the restaurant, type of customers' clothing, quality of service, type of furniture, and the kind of menu served). Within the classification group, gross revenue per waiter is estimated within a range, classified according to a sub-classification of cities and neighborhoods. In order to calculate profit the outlay on food purchase is estimated to be 25-30 percent of the revenue. Furthermore, a classification of workers is also provided: eight hours of a waiter is considered as a day, an owner without partners is considered as a waiter, if there are several partners then a deduction of a half-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) for materials.

Flower Shops: Classified into three types of stores according to whether they have rare flowers, pot plants, and whether flower arrangements (bouquets) are performed. Then the gross revenue per workers is given with a spouse considered as a half worker. The profit is a percentage of gross revenue. The specific percentage is specified for each type of the stores.

Vegetables and Fruits Stores: Classified into nine categories according to the type of city, neighborhood, and the variety of products. To each type an estimate of gross revenue is given. Sources from which stores buy the products are divided into two categories: organized and not-organized, with a higher profit margin to the stores with non-organized suppliers.

Gas stations: Gas stations have nine different sources of incomes. The amount of different fuels bought is gathered from the suppliers. Then a profit factor is presented 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, the look of the store and the type of service given), while others are related to variable costs (number of workers and the type of workers).

As far as we know, the only serious attempt to analytically model the effect of using the "Tachshiv" instead of a book-keeping system is done by Finkelshtain (1985) who restricted his model to analyze the factors affecting the decision of the owner of a family farm who is able to allocate his effort between hired work and working as an employee outside the farm. His model includes the impact of inputs that the tax authorities take into account in calculating the revenue in the "Tachshiv" and those that are not taken into account (which can be viewed as exempt from taxation). Because the results concerning the deadweight loss caused by switching from one system to the other are sensitive to elasticities of substitutions 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 system.

4. Advantages and Disadvantages of the "Tachshiv":

4.a 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 property of the categories, in addition to being correlated with the revenue, is 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. For example, in agriculture, the size of cultivated land and the type of product 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 an indication of the activity of the business (miles driven for taxis). 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, raw 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, then the tax declaration is accepted without further investigation. On the other hand, if a business claims that the income generated from the business is below this threshold, then a full investigation of the records is carried out. Therefore, businesses that are filing for tax relief are those who have to support their claim with the required evidence. If, on the other hand, the business pays the tax required, then no investigation is carried out and the tax is final.

In some simplistic sense the method is similar to a standard deduction which is applied to different groups of taxpayers. For each category of taxpayers (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 US 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 by 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 an artificial one. The justification under Sadka's (1976) regime is that once an income is known, there is no reason to also impose a marginal tax rate. Under presumptive taxation, the tax authorities set a semi lump-sum tax in order to save compliance cost and administrative cost.

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 or Slemrod and Yitzhaki, 2002).

Accuracy: Presumptive taxation is less accurate than the classical tax which is based on a bookkeeping system and, as such, it violates the principle that taxation should be according to ability to pay. However, the violation is moderate. That is, provided that the classification of business is sufficiently large, the violation is within groups but not between-groups. In some sense it is reminiscent of Stern's (1982) paper on administrations with errors on taxation. However, the errors are planned errors, so that justice is a "rough" justice. By changing the required tax, the administration can control and influence the number of small businesses that rely on a 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 and this property does not violate horizontal equity in the sense that business with similar characteristics are taxed similarly.[15] However, while it does not violate the principle of

[15] One may argue that horizontal equity considerations are not applied to business. However, in this case of small businesses the business may be identified with the owner.

horizontal equity within a single type of businesses, it may well violate it between economic branches.

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 which is a step function: that is the tax is constant between brackets and then when the taxpayer moves to a higher bracket of income the tax "jumps" to another higher constant. The taxpayers can be divided into two groups: Those whose relevant set of possible optimal points is limited to be in one income bracket, and those whose relevant set spans over two or several income brackets. The former group of taxpayers faces a zero marginal tax rate and therefore we can view the tax on this group as a lump-sum tax, with zero efficiency cost. On the other hand, the taxpayers who are indifferent between points on several brackets, or the choice of income among different brackets of income is relevant for them, can choose in which bracket to be, and may cause excess burden. 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 the presumptive 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 way 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 presumptive tax cannot be higher than the excess burden of a regular (continuous) tax.

Simplicity and Compliance Costs: The presumptive tax enables the small business to avoid complicated book-keeping system that may be redundant for running the small business and is only needed to satisfy the regulations of the tax authorities. Moreover, in these cases there is a temptation to tamper with the books. Therefore it leaves the book-keeping as a choice variable for the small business and this way simplifies compliance with the tax law. We believe that the compliance cost issue is the crucial factor in determining the desirability of presumptive taxation. If it is accepted that book-keeping system and record keeping are essential for running the (small) business, and the only reason for not using it is the opportunity to evade, then presumptive taxation could not be justified. If, on the other hand, it is accepted that a small business does not need a book-keeping system and the only reason it uses one is because 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 the tax and compliance cost, it may happen that the lion's share of this burden is the compliance cost.[16] 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 it will also reduce the burden of administrative cost. It allows the administration to invest in "profitable" activities (See for example, Romanov (2004).

4.b Disadvantages of presumptive taxation

There are several disadvantages of using presumptive taxes. The weight that should be attached to them depends on the specific case analyzed. The major issue is that the tax seems arbitrary. To reduce the feeling of arbitrary taxation the tax authorities have to invest resources in analyzing tax returns in order to find out the rigid parameters that determine the income that can be generated from a business, and to convince the general public and experts in each field that the tax is fair. This is the major weakness of the tax and we 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 every category of

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

taxpayers. However, since the tax authorities can determine the tax, they can mitigate this effect. Another factor that affects progressivity is the burden of the proof. To see it, consider the following tax. Assume that a head tax is imposed. The impediment of imposing such a tax is that some of the taxpayers do not have the means to pay the tax 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 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 not able to pay have to prove that they are not able to. The trade-off of 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 taxation method. 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 instead be based on cash registers and record keeping. One reason is that the method is only as good as the system of determining the tax parameters and of updating these 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 and to prevent a large number of itemized filings they negotiated with representative organizations of businesses agreeable and recommended required tax. Those agreements raised suspicions by the public of their being affected by lobbyists and politicians. This was one major reason the public income tax reform committee (Ben-Shahar Commission, see Ben-Porath and Bruno, 1977) recommended abolishing the system.[17] An additional reason for the recommendation is 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

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

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.[18]

5. A Score Card for a Presumptive Tax

To see the considerations involved in evaluation the worthiness of presumptive taxation, let us consider substituting an income tax by a presumptive income tax using the Marginal Cost of Funds framework, as presented in Slemrod and Yitzhaki (2002).[19] The marginal costs of funds (MCF_i) as composed of two components:

(1) $MCF_i = DC_i * MECF_i$

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. We consider two tax instruments: the regular income tax (denoted by R), and the presumptive tax (denoted by P). Let DC_R , DC_P represents the distributional characteristics of the regular income tax, and the presumption tax, respectively.

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

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

where γ is the social value of the utility the taxpayer is sacrificing at the margin in order to save a dollar of tax. C_i is the marginal private compliance cost associated with the ith 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:

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[18] Unlike the U. S. law, the Israeli tax law allows only a modest number of personal exemptions and credits, and the deduction at source of the tax does not allow the taxpayer to choose the amount of deductions and whenever possible the deduction at source is done with the highest marginal tax rate. Hence, the tax authorities treat across-the-board filing as a revenue-losing apparatus. 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 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.

[19] One may argue that a marginal framework is not applicable for analyzing such a change. We 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 repalcing 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.

The potential additional tax is X_i. $X_i - MR_i$ is leaked at a social cost of γ 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 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 costs of a dollar collected. (For a full description of the framework, we refer the reader to Slemrod and Yitzhaki, 2002).

Next we qualitatively compare X_R, MR_R, C_R and A_R to X_P, MR_P, C_P and A_P. It is assumed 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 charateristics of the presumptive tax tends to be worse than the distributional characteristics of the regular tax. (The presumptive tax rate tends to be lower on efficient, and thus higher income, taxpayers). To sum up, when introducing a presumptive tax – we should expect the following changes in the MCF

excess burden is:

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

[21] The marginal revenue depends on the taxpayer having good substitutes to the inputs that are used in the presumptive tax base and, on the other hand, on the ability of the taxpayer to use double book-keeping and to evade taxes. The lower the marginal excess burden, the higher the marginal revenue. 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.

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

where γ is the social value of the utility the taxpayer is sacrificing at the margin, and ↑ ↓ indicate the term to increase/decrease when 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 terms are moving in offsetting directions. Our intuitive conclusion is that the results crucially depend on the assumption concerning compliance and administrative cost. For the large business, recordkeeping is essential for managing the business because the large number of workers requires the tractability and the allocation of responsibility among employees. For the small business – it may be that record-keeping is a luxury that is not essential for running a successful business.

Finally, it is worth to mention 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 moral of taxpayers is not considered in the above framework.

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