

The Relevance of the Theory of Fiscal Illusion. The Case of the Italian Tax System

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Introduction

The theory of financial (or fiscal) illusion was proposed by Amilcare Puviani¹, in his 1903 book. The work did not arouse particular interest amongst the author's contemporaries, and its international success only arrived much later, due, above all, to its reassessment by Buchanan in his works of 1960 and particularly 1967.

Financial illusion is a phenomenon that relates to the cognitive alteration of the costs and benefits of public policies. Although some of Puviani's (1903) ideas can be traced back to Mill (1848), the Italian economist is credited with systematising, in a single theory, the different methods through which it is possible to interfere with a subjective evaluation of the tax burden (revenue illusion) or the benefits associated with the provision of goods and public services (expenditure illusion).

As already mentioned, the scientific community showed little interest in the theory of financial illusion in the years immediately following its publication. One of the main reasons for this lack of interest is that, according to Fasiani (1941), Puviani described public finance as a tool of forced taxation driven by the selfish actions of a dominant group. This assumption meant that Puviani's theory was incompatible with the idea of a cooperative and democratic State that, at the beginning of the twentieth century, was the dominant perspective in the analysis of public finance.² Consequently, from the point of view of cooperative finance, financial illusion was seen to deviate from the normal situation and therefore was

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¹ Amilcare Puviani was born in San Felice sul Panaro (Modena) in 1854, where he died in 1907. He was professor of public finance in Bologna and Perugia.

² See De Viti de Marco (1936) for his polar conception of the State.

given only marginal importance in economic analysis. However, Fasiani's interpretation does not correspond to the analysis expounded by Puviani, who believed a fiscal illusion to be merely a means through which the State could meet its targets. Fasiani (1951[1941]: 80) wrote on this point: "*Perhaps Puviani was mistaken in his belief that his theory had too general a value*". And the same Fasiani, in fact, believed that this theory "*indicates a tendency characteristic of financial institutions in the limited case we have called the Monopolistic State, but it does not apply outside of that case*" (Fasiani 1951[1941]: 81)³.

Whilst Puviani's analysis was neglected by his contemporaries, it was considered modern by two schools of economic thinking which, several decades apart, became established in the literature. As we said above, the first reassessment took place, in fact, with the emergence of *public choice's* approach, which essentially appreciated the dualistic perspective (political authority - taxpayers/voters) that Puviani used to analyse the financial phenomenon.

A second reassessment, which has not yet been adequately highlighted in the literature, can be made by fully integrating the theory of financial illusion with the behavioral economists' approach: for example we refer to Tversky and his many co-authors, and in particular the 2002 Nobel Prize winner Kahneman. Indeed, part of the perspective of behavioral economics is the centrality of phenomena of a cognitive nature (such as illusion, perception, cognitive limitations and the psychology of the taxpayer) that Puviani had already given a prominent position in his economic analysis. The thinking of behavioral economics therefore allows us to look today at the analysis of financial illusions with renewed interest. By replacing the hypothesis of substantive rationality with assumptions more closely linked to cognitive science and psychology, these reflections add, as Puviani had already foreseen, the importance of the role of perception in the way *homo oeconomicus* acts. In this perspective, the Italian school of public finance, through Puviani, can be considered a forerunner of one of the most effective and constructive criticisms of *mainstream economics*.

This study will focus on financial illusion, to assess whether the "Theory of financial illusion" can still help us understand modern tax systems more than a century after its publication. The aim is therefore to verify the relevance of the theory of fiscal illusion within the current Italian tax system. In addition to a literature review, we will highlight several examples of financial illusion found in the current Italian tax system, which can be placed, directly or indirectly, in the categories outlined by Fasiani (1941), which systematically group together the ways in which the different types of illusions identified by Puviani (1903) can be achieved.

The article is divided into four sections. After this introduction, the first section analyses the phenomenon of financial illusion as constructed by Puviani (1903) and interpreted by Fasiani (1941). The second looks at the rediscovery of his work in the literature whilst the third provides a new reassessment in terms of behavioral economics. The fourth section presents a series of examples showing

³ In this paper the translations are ours, where they are not already available.

how the current Italian tax system fits most of the categories of financial illusions outlined in Puviani's theory. We finally draw some conclusions.

1. Fiscal illusions

Puviani ([1903] 1973: 5) defines illusion as “*an erroneous representation in our mind of phenomena that are by the force of circumstances of the most different nature*”. This definition is consistent with the psychological meaning of the term illusion. In psychology, an illusion is the alteration of a sensory perception, caused by the way the human mind organises and interprets the external stimulus it receives. The subject perceives reality (otherwise it would be an hallucination) but, for a wide variety of reasons, he transforms this perception, in order to cause a false configuration of reality, giving grounds for his own dreams, hopes and fears.

A full discussion of Puviani's theory is beyond the scope of this article. In the following we summarize the theory of financial illusion, directly using Puviani's text and then making reference to Fasiani's classification. While Fasiani only partially understands the relevance of Puviani's theory, we follow his taxonomy of the different forms of illusions. In our view, Fasiani (1941) provides the most complete classification to analyse Puviani's original intuition.

A very special case amongst the illusions highlighted by Puviani (1903) is political illusion in the broadest sense, including wrong political judgments given by the electorate. This illusion includes several subcategories, including political illusion in the pure sense, *i.e.* errors by citizens concerning the State's aims (and concerning the effects of its actions), and financial illusion, *i.e.* the misrepresentation of the (economic) means that the State uses to achieve its goals. This work is focused on the latter.

Financial illusions vary in type and can be introduced to tax systems in starkly contrasting ways. Puviani (1973[1903]: 179) proposes three main categories, drawn according to the facts and the institutions which give rise to the illusions. The first, the concealment of acquired wealth, consists of financial and accounting establishments which contribute to the hiding of certain amounts of public expenditure and taxes paid by the taxpayer. The second, the concealment of negative tax effects (or at least some of them), includes cases of attaching certain taxes to events or moments of sudden wellbeing or serious worries or pain for the taxpayer, or the provision of special public services (the usefulness of which is exaggerated by private pleasures). The third includes illusions which occur by concealing the taxpayer, either in an absolute manner (when the subject liable for a tax completely disappears) or in a relative manner (when a false, so-called “*de facto*” taxpayer replaces the real “*de jure*” taxpayer)⁴.

The following section will illustrate briefly the key types of financial illusion

⁴ Consider the phenomenon of the passing on of the tax burden (also called tax incidence).

regarding public expenditure and revenue, according to the distinctions made by Puviani (1903); it will also use a re-interpretation proposed by Fasiani (1941).

1.1 *Financial illusions regarding public spending*

The singling out of services that are defined as public and the amount of expenditure required to supply them could give rise to mixed reactions on the part of taxpayers if they were informed of the effective burden and the actual benefits that can be received. To avoid doing so, the policy maker may use (or be encouraged to use) a series of devices designed to make the cost of the service look less burdensome and increase its (perceived) utility.

There are various erroneous evaluations that can determine a financial illusion on public expenditure, and they can refer to the quality, quantity, duration, purposes, the immediate or mediated effects or the causes of the evaluations. Following Puviani (1973[1903]: 18-22), the following types of evaluation can be distinguished: a) ignorance of the outflow from the public coffers of certain sums of money; b) ignorance of the actual use of the expenditure (this illusion can be accompanied by the illusion of correlation, the belief that sums of money are available when they have actually already been spent); c) ignorance of the amount of public spending; d) ignorance of the duration of public spending; e) ignorance of the moment when the expenditure is carried out or begun; f) ignorance of the aim set by the State for that public expenditure;⁵ g) ignorance of the immediate or mediated effects of the public expenditure; h) ignorance regarding the causes of the expenditure.

In addition to public expenditure illusions determined by ignorance, we must add those that consist not of concealing expenditure, but rather of giving the appearance of expenditure that in reality did not take place. This is an example of “evocations” (Puviani 1973[1903]: 7, 20, 21), which create a so-called “positive” illusion because they are characterised by seeing something that does not really exist.

The financial illusions regarding public expenditure, although potentially achieved using a variety of strategies, can be divided, following the grouping of Fasiani (1951[1941]: 87ff.), into three fundamental groups:

A) *Obvious and declared concealment of the expenditure*. The most frequently used system in the past simply consisted of keeping the quantity, quality and duration of public expenditure secret. This was possible due to the lack of distinction between the State coffers and the personal coffers of the rulers, and because those in charge of the (indistinct) coffers were obliged to maintain secrecy. The situation did not change much, when, in very specific situations, usually to obtain loans, the rulers were forced to report the state of the finances, as only a brief summary was ever given and the reported data were frequently false⁶.

⁵ The illusion regarding the purposes of public spending is a political illusion in the pure sense.

⁶ Fasiani (1951[1941]: 92-93) cites as historical examples of this fakery the public accounts which Charles VIII presented to the Estates-General at the meeting in 1484, and the first public budget delivered by Louis XVI's Finance Minister, Jacques Necker, in 1780.

B) *Concealment of expenses through institutes and accounting and administrative practices.* This system was primarily possible in the past because there was no technical means to ascertain the state of finances. Financial administration consisted of creating a certain number of funds, with each of them meant to deal with certain expenses, and with certain revenues attributed to each fund. This method of organising accounting ended with the rise of the Liberal States during the 19th century, when a budget had to be presented to a deliberative assembly and when the opposition had to be taken into account. Nevertheless, a veil continued to surround public expenditure. In fact, the public budget became a complex system, beyond the capabilities of many of those who had to discuss and approve it. In addition, these documents can be made even more impenetrable by a set of accountancy tricks (Fasiani 1941).⁷

C) *Concealment of the costs through various other procedures.* Public expenditure, in addition to secrecy, falsity and accounting practices, can be concealed through other methods, one of the most common of which is a change in the allocation of funds. In other cases the true purpose of the public spending is masked by another, illusory purpose. This category includes, for example, the establishment and financing of so-called “useless” entities, the disproportionate fees paid for some public offices and, above all, public expenditure that allows the ruling class to give (especially through public work and provisions to the State) undue payments or “gifts” to their supporters.

1.2 *Financial illusions regarding public revenues*

There are several financial illusions regarding revenues, and they are the most effective way for a governing body to manipulate the perception of a tax burden.

Public revenue illusions create a gap between the actual cost of the charge and the perceived burden, either through an incorrect understanding of the amount of tax or by supporting an incorrect assessment of the contributions associated with it.

According to Puviani (1973[1903]: 22-24), five fundamental types of these illusions can be distinguished: a) ignorance of the quality of public revenues, which, whether ordinary (e.g. fees, taxes, income from state properties) or one-off events (e.g. sale of state property), can be hidden from the taxpayer; b) ignorance of the total amount of public revenue and the payments required of the individual taxpayer; c) ignorance of the duration of the contributions. Furthermore, it is possible to judge incorrectly the contributions requested and/or made, even if one knows the exact total of the tax burden. These erroneous judgements, despite knowing the actual amount of tax, may result from: d) an incorrect judgement resulting from a given tax, due to only taking into account its immediate effects and not those that will inevitably follow in the long term; e) an incorrect

⁷ For example, by dividing up the expenses of a business and placing them in the most disparate points of the document, with quotations for expenditure far below the actual cost, with figures enlarged and made smaller at a whim etc. (Fasiani 1951[1941]: 106)

judgement of the weight of the contribution resulting from a given tax, which, despite knowing its exact amount, is based on an incorrect calculation of the immediate negative effects of the taxation.

Following the example of Fasiani (1951[1941]: 125ff.), the ways in which public revenue illusions can be generated can be separated into:

A) *Concealment of wealth acquired from individual sources.* Illusions of this kind stem from the fact that some forms of wealth acquisition can easily escape the attention and the understanding of taxpayers. They can have various forms: A.1) Income, alienation and pledges of state property; A.2) Payment of a tax, the existence and amount of which are unknown. This type includes the best known means of fiscal illusion where, as in the case of indirect taxes on purchases, the aggregation of the tax into the price of the goods or services makes the taxpayer uncertain about its extent (or even its existence). A.3) Public borrowing. The concealment of wealth, in this case, relies on the fact that the taxpayer is not normally aware that the public debt only constitutes a postponement of the tax payment, with the extra burden of interest. A.4) A change in the currency. The use of a forced exchange rate and inflation are probably the financial illusion systems that have been used most commonly in the past. A.5) False promises from rulers. Such promises are generally intended to give the impression to the taxpayers that the tax is a one-off that will not apply in the future, with the effect of decreasing the taxpayers' initial resistance.

B) *Concealment of the quantity, quality and duration of the public revenue in the budget.* Here, just as statements are not given for expenditure, or false or unclear documents are produced, the aim is to keep part of the revenue or their origin hidden from the masses.

C) *Combination of a tax with the individual pleasures of the taxpayer.* The aligning of a tax payment with a moment when a taxpayer's level of wellbeing is particularly high normally creates the effect of a depreciation of the subjective value of his own wealth. This fact, resulting in an increased tendency to spend, also makes obligatory expenses less burdensome, including those of a fiscal nature. In cases where taxes coincide with certain pleasures they lose all or part of their burden, as the pleasures help to attenuate the weight of the contributions.

D) *Special public services, the utility of which is increased by individual pleasures which attenuate the weight of the tax.* This hypothesis occurs when the tax is somehow tied to the use of special public services, the effective value of which increases due to the combination of the customer's particular pleasures.

E) *Combination of a tax with events that arouse feelings of solidarity or hate of a class or professional nature.* New taxes may be introduced without encountering excessive resistance by manipulating feelings of class or professional status, and significant proportions of people's assets can be taken by using feelings of hate against certain groups of people, under the pretext, for example, of pursuing social justice.

F) *Juxtaposition of an avoidable greater evil with the lesser evil of the tax.* This is an ancient illusory practice, which can take several forms: 1) exag-

generating or understating the qualities of a tax, compared to another tax, either repealed or due to be levied; 2) at other times the “greater evil” to avoid is represented by disaster or dangers to the public (real or expected) that need to be eliminated; 3) in other cases it becomes possible to convert custodial sentences into financial sanctions.

G) *Combination of tax burdens between various taxes and with other burdens.* This situation normally occurs when the payment of taxes is brought near to other taxes or to certain negative events, so that each appears less serious, decreasing the perception of the burden. In these cases, the financial illusion does not depend only on the concurrence of paying more taxes, but also on the link with the taxpayer’s private or public obligations or concerns. It is undeniable that receiving private news, and distressing information in particular (for example the death of a relative), or public news that influences people’s opinion (for instance, a natural disaster), or even merely a prediction (for example, the threat of terrorist attacks, the spread of a pandemic, the exit from a monetary union), helps to attenuate the immediate negative effects of taxes that are opportunistically attached to them. Illusions of this kind stem from the fact that the intensity of a feeling, whether positive or negative, varies depending on whether the decisive stimulus is repeated or not, or whether it is preceded by other similarly positive or negative stimuli. The phenomenon under discussion is also linked to: 1) the financial penalties that almost always accompany the penalties restricting personal freedom; 2) inheritance tax paid by the closest relatives of the deceased; 3) at other times the “greater evils” are themselves taxes with due dates for payment or submission of the tax declaration that overlap with the deadlines of more minor taxes.

H) *Illusions due to the extent of painful sensation.* Illusions of this type arise from spreading the burden of taxes by dividing them regularly and opportunistically in time. In particular, this is achieved by breaking up the tax so as to create stimuli that do not cause a single instance of negative feelings, but rather spread the load over several occasions. This illusion is directly dependent on the splitting of the tax burden, so that sums of tax below certain limits, whilst still felt, leave the subject almost indifferent to them. In addition, splitting the tax or paying it in instalments, generally in set amounts at regular time intervals, allows the taxpayer to stabilise the burden, psychologically as well as physically, and their aversion to it is likely to decrease over time. On the one hand this introduces a new “pleasant” aspect to the tax duty, the progression towards the debt repayment (consider cases of payment in instalments). On the other hand, when actions that cause discomfort are repeated regularly over time, the human cognitive process absorbs the perceived sacrifice, so that psychologically the taxpayer develops only a minor aversion to the cause of the reduction of disposable income (consider monthly tax payments or the splitting achieved by withholding the taxes of employees or withholding tax returns for self-employed workers).

Furthermore, a special kind of financial illusion is related to the multiplication of limited amounts of taxes. This choice of tax policy, by making the tax system

more complex, creates uncertainty in the taxpayer about the overall extent of the tax burden to be borne.

1) *Mistakes regarding the person of the taxpayer.* This type of financial illusion is connected to the fact that taxes do not always affect those who are legally identified as being subject to them. In this case the taxpayer who is legally obliged to pay the tax, places it on other groups of persons who are usually unaware of being “*de facto*” taxpayers.

2. The rediscovery of fiscal illusions

The reappraisal of Puviani’s thinking⁸ is mainly to be attributed to Fasiani (1928-29, 1980[1932-33], 1941) and also, in a way, to Ernesto D’Albergo (1959), who translated Puviani’s theory into German. Fasiani (1941) also highlights a positive connotation of the illusions, which applies when they are sporadic, temporary and not manipulated to serve the sole interests of the ruling class. In this case, they could potentially be a practical tool for achieving public welfare.

As already stated, it was James M. Buchanan (1960, 1967) who brought international fame to the theory of financial illusions. It is important to remember once again that whilst Puviani (1903) did not assume any particular type of State in his theory, Fasiani’s new interpretation was based on the assumption that this theory had limited applicability to the Monopolistic State, but does not apply beyond that case (Fasiani 1941). This reading therefore gave financial illusions a political and institutional connotation, limiting their generalisation to other contexts. One of the merits of the work of Buchanan (1967) was his recognition that the theory could adapt perfectly to liberal-democratic contexts. Several studies regarding this idea (e.g., Fausto 1982; Da Empoli 2002)⁹ agree that financial illusions have the greatest appeal in democratic types of political institutional context, as finding a consensus is of more importance in that case than in authoritarian forms of government.

Buchanan put the theory of fiscal illusion into the mainstream, stressing that behaviour under an illusion is not necessarily irrational. This observation allows an approach to analysing financial illusions using the hypothesis of rationality, and thus legitimises the *homo oeconomicus*’ analytical approach to decision-making.

⁸ To some extent abandoned by the author himself, who, nearly blind, died only four years after his “Theory of financial illusion” was published and who, after the publication of this work, did not write anything else on the subject and only made a few references to financial illusion within the university syllabus. Perhaps he did not fully understand “the extent to which his theses on the nature of the State, the inequality of taxpayers’ income and interest and the conditioning of their choices would attack the weakest points of marginalist financial theories” (Volpi 1973: XXXI).

⁹ These studies recognize the classification of the theory of fiscal illusions within the political-sociological approach of public finance as the main reason of little attention received by Puviani’s (1903) book among his contemporaries. At the beginning of the 20th century, “*political-sociological area generally was not deemed to be as scientifically worthy as the ‘economic’ approach to public finance*” (Da Empoli 2002: 381). That is, Puviani’s theory was marginalised by the mainstream economists of his time.

The acknowledgment that the “financially deceived” taxpayer acts in a rational manner therefore allowed the “head” of *public choice* to include Puviani’s theory fully in its approach, without having to deny the logical and analytical approach of the optimisation process. In fact *public choice*’s theory shares the methodological individualism of neoclassical economics, whilst assuming that politicians and bureaucrats do not pursue collective welfare, but act to maximise their own specific objectives (for example, re-election, power, etc.). Buchanan (1967) thus identifies financial illusion as a typical mechanism used by the ruling class to pursue causes of personal rather than general interest, whilst minimising their loss of electoral support. Assuming that conflicts of interests are an irrepressible part of society, Buchanan believes that financial illusion is no longer a deviation from a normal attitude (Fasiani 1951[1941]: 81) but, on the contrary, represents an ordinary strategy used by politicians and bureaucrats to minimise the electorate’s unhappiness about certain economic policy decisions.

Buchanan (1967) also proposed simplifying Puviani’s original classification of the types of financial illusions, with the addition of new illusion methods found in modern economies. Like Puviani, the American economist also focused on the optimistic illusions, though not denying the existence of the pessimistic variety.

The first “modern” tool, according to Buchanan (1967), for generating (optimistic) illusions is the *withholding of income for tax payments*. Whilst withholding on the one hand has the advantage of simplifying tax compliance, on the other hand it does not allow the worker to fully perceive the percentage of their income held, limiting their ability to determine their degree of participation in the financing of public goods and services.

Buchanan’s (1967) second example of illusion, although this time pessimistic, is *progression in the rate structure of an income tax*. In this case, the existence of a marginal rate higher than the average rate gives taxpayers the (pessimistic) illusion that the tax burden is greater than it actually is. This feeling is due to the fact that taxpayers think in terms of marginal tax rates (directly observable), rather than in terms of the average rate (which instead requires an estimation by the taxpayer). For this kind of illusion Buchanan argued that having a proportional rather than a progression tax would have an effect on the amount of public expenditure. In particular, a proportional income tax would create greater demand for public goods than a hypothetical progressive income tax. Finally, Buchanan (1967) shows how it is also possible to talk about illusion in regard to *corporate income taxation*; in fact, the burden of taxes imposed on the income of corporations can be passed onto the end consumers, through an increase in the prices of goods produced by the firms¹⁰.

A few years later Cesare Cosciani (1970: 75), recognising the possibility of a protected structure (as opposed to a parasitic or predatory structure) of public

¹⁰ The other three types of fiscal illusions provided by Buchanan (1967) are not reported because they refer mainly to characteristics of the 1960s U.S. tax system (*Social security taxes, averaging in the personal income tax and capital gains taxation*).

finances, admitted that the ruling class, when acting as a “good family man”, could make use of financial illusion strategies to achieve its goals (in this case public welfare), minimising the loss of (perceived) utility amongst the masses.

The literature on fiscal illusion has also branched into the area of empirical analysis; Wagner (1976), and Pommerehne and Schneider (1978) were among the first such studies. Both works identify the complexity of tax systems as the main cause of an alteration in the perception of the tax burden, and they confirm the hypothesis that fiscal illusion has a significant effect on governments’ spending and financing decisions. However, other studies have questioned this empirical evidence (Munley and Greene 1978; Clotfelter 1976).

There are now many reviews of fiscal illusion, of which Oates (1988), Dollery and Worthington (1996, 1999a), Mourão (2007), Haug (2009) and Dell’Anno and Mourão (2012) are worthy of mention.

Following the classification proposed by Dollery and Worthington (1996), the empirical literature on financial illusion has branched into five main directions¹¹:

(I) Studies on *tax revenues’ complexity*. This literature argues that a more complex tax system (with multiple taxes and with many technical details) helps the government increase public expenditure without it being perceived fully by taxpayers (e.g., Wagner 1976; Cullis and Jones 1987; Heyndels and Smolders 1995; Dollery and Worthington 1999b).

(II) Studies on *revenue elasticity*. They hypothesize that higher levels of revenues or income elasticity ease the collection of “automatic” revenues and thereby accelerate the political approval of the sustainability of additional expenditure (e.g., Greene and Hawley 1991; Heyndels and Smolders 1994; Dollery and Worthington 1995).

(III) The studies on the “*flypaper effect*” test the hypothesis that lump-sum grants increase public outlays more than other sources of budget maximization. For a survey of this literature, see Dougan and Kenyon (1988), Wycoff (1991), Turnbull (1992 and 1998) Heyndels and Smolders (1994), Hines and Thaler (1995), Dollery and Worthington (1995), Inman (2008), Aragon (2008).

(IV) Studies on *rent illusion*. This strand of empirical literature on fiscal illusion observes that renters are more likely to support higher levels of local public expenditure than homeowners. This trend is because tenants, contrary to owners, pay their property taxes in a hidden way as part of their rental payments. Among the empirical studies on renter illusion, we highlight the following: Martinez-Vazquez (1983), Heyndels and Smolders (1994), Carroll and Yinger (1994) and Gemmell et al. (2002), Blom-Hansen (2005), Oates (2005).

(V) Studies on *debt illusion*. They recognize that current taxation generates higher levels of perception by voters-taxpayers than public indebtedness. Oates

¹¹ These five directions have already essentially been discussed in Oates (1988). For Oates (1988), there were five forms of fiscal illusion: 1) complexity of tax structure; 2) renter illusion with respect to property taxation; 3) income elasticity of the tax structure; 4) debt illusion; and 5) the flypaper effect.

(1969), Epple and Schipper (1981) and Dalamagas (1992 and 1993) are studies in this area.

One strand of empirical research that has been developing in recent years analyses the phenomenon of financial illusion through the approach of experimental economics. Within this strand, Sausgruber and Tyran (2005) investigate whether fiscal illusion is a result of the overexpansion of public expenditure, thus promoting an excessive presence of the State in the market. The two authors, in fact, limit their work to analysing the reliability of the so-called “Mill hypothesis”, according to which the fiscal pressure obtained by indirect taxation is underestimated compared to direct taxation because it is less visible to taxpayers. The “Mill hypothesis” (1848), also mentioned by Schmölders (1960) and Buchanan (1967), represents only one of the forms through which the policy maker reduces the taxpayers’ perceived burden. Sausgruber and Tyran (2005) in any case find empirical confirmation of the hypothesis that fiscal illusion distorts the decisions of voters, causing a higher redistribution than the (objectively) optimal value.

As far as the latest developments in the literature are concerned, Mourão (2008) and Dell’Anno and Mourão (2012), whilst following different econometric approaches, pursue the same goal of quantifying the scale of fiscal illusion. In particular, Mourão (2008), through a variety of indicators of the intensity of pro-illusion strategies, estimated a global (national) proxy for the degree of financial illusion in a sample of 68 countries for the period 1960-2006. This estimation, based on the *Multiway* approach to the analysis of principal components, clearly shows that the phenomenon of fiscal illusion varies greatly from one country to another. In terms of global trends, Mourão (2008) estimated that there was a significant reduction between 1980 and 1995, whilst procedures with illusory aims remained more or less constant until 2006. Meanwhile, Dell’Anno and Mourão (2012) have estimated an index of fiscal illusion for 50 countries for the period 2000-2008. The statistical approach used (Structural Equation Approach - SEM) allows both an estimation of the scale of financial illusion and an empirical test of the main causes and indicators of the phenomenon.

3. Theory of fiscal illusion and behavioral economics: which relationship?

In the last few decades there has been an increased attraction of behavioral approach to public finance¹². In general, behavioral economics is often regarded as a recent approach to economics. However, the relevance of psychology in individual decision-making has long been a part of economics (James 2006; Alm 2011). While it is not our aim to provide a survey of behavioral approach to tax policy,¹³ we point out how these surveys do not even mention Puviani’s theory.

¹² Different labels are used to refer to this sub-field of behavioral economics (e.g. behavioral public economics, behavioral public finance, behavioral tax economics, behavioral political economy).

¹³ Several such surveys already exist: McCaffery and Baron (2006) McCaffery and Slemrod

In contemporary economic literature there are two main reasons concerning the limited acceptance of Puviani's theory among economists.¹⁴ The first is a language barrier, as neither Puviani's (1903) nor Fasiani's (1941) book have been translated into English. The second, pointed out by Da Empoli (2002) and Wagner (2003), concerns the notion of rationality underlining Puviani's theory.¹⁵ The hypothesis of a taxpayer consistently tricked by policy maker is a deviation from the standard rationality assumption. Thus, Puviani's theory found a number of difficulties in being accepted into a mainstream economics. Wagner (2003) considers that rationality, assumed in the theory of fiscal illusions, as no longer an obstacle because of the development of behavioral economics. Accordingly, Wagner (2003) is the first scholar to recognize a relationship between the latter and Puviani's theory. It is because a behavioral approach is familiar to Puviani's insight that people respond to taxes in a way that is mediated by cognitive limitations. Nevertheless, a decade later Wagner's expectation has not yet been realized.

In this section, we support Wagner's (2003) hypothesis with further arguments. Thus, we look at Puviani's (1903) theory of financial illusions as the first examination of the implications of psychological consideration in the analysis of tax policy (i.e. behavioral public finance).

To this purpose, we consider Fasiani's (1929) first essay regarding fiscal illusions. It is the only one of Fasiani's publications to be translated into English, and the only occasion for the English speaking audience to know something about Puviani's theory. While Fasiani focuses just on "*illusions on revenue due to the extent of painful sensation*", it is possible to find in his own (translated) words, some of the psychological aspects of taxpayer's decision-making that, several decades later, will become well-known to behavioral economists. Quoting Fasiani's [1929] 1998: 90) words, "*As it is known, Puviani stressed that the utility attributed to the various units of wealth is not constant over a period of time, but increases or decreases as a consequence of both economic and extra-economic factors*". A few pages later Fasiani ([1929] 1998: 94) states: "*On the one hand the subject tends to not appreciate at all or very little the public good, of whose existence he becomes aware only when it no longer exists. On the other hand, he tends to consider taxation to be pure loss of a part of his income. It is at this point that we have what Puviani calls a «pessimistic fiscal illusion», in that not only does the subject cease to appreciate the surplus he once had, he also has a painful impression of a useless loss of wealth*". It is easy to see some connection between Puviani's theory of fiscal illusion and some of the assumptions of the behavioral approach.

(2006), Bernheim and Rangel (2008); Congdon et al. (2009); Slemrod (2010); Alm (2011). For historical origins and nature, see James (2010), Angner and Lowenstein (2012).

¹⁴ It differs to the reasons behind the little interest in the years immediately following Puviani's (1903) publication summarized in the introduction.

¹⁵ Buchanan (1967: 126) states that "behaviour under illusion is not necessarily irrational. By contrast, people under illusion may still act in a consistent way: given the same choice situation on separate occasions he will tend towards the same decision making".

In particular, in the first part of Fasiani ([1929] 1998: 90), we deem the intuition “*that the utility attributed to the various units of wealth is not constant over a period...*” seems to be (roughly) inspired by the behaviour phenomenon known as “time-inconsistent preferences” (Laibson, 1997). In the second part of Fasiani’s ([1929] 1998: 94) text, the psychological explanation of «*pessimistic fiscal illusion*» is not too far from what behavioral economists would call a “reference dependence” (Kahneman and Tversky 1979).

In the past thirty years hundreds¹⁶ of empirical studies have investigated the “framing effect” in many different contexts. One of the most prolific applications has been on subjects making different choices across the economically identical tax-framing conditions.¹⁷ According to motivational theories of framing effect, decision makers assign a stronger value to feelings of displeasure than to feelings of pleasure, and this disparity increases proportionately with the gain or loss involved in a decision (Gonzalez et al. 2005; Mellers et al. 1999). From this perspective, the framing effect has some analogy with the psychological assumption made by Puviani and labelled by Fasiani (1941) as “*juxtaposition of an avoidable greater evil with the lesser evil of the tax*” (letter F). In these cases, government drives voters’ attention on the (real or expected) “losses” avoided by the increasing tax instead of the “gains” yield by that tax revenue. So, government minimizes electoral loss because of “*the emotions evoked by the losses generally are greater than those evoked by gains*” (Gonzalez 2005: 4).

The “endowment effect” (Thaler 1980; Kahneman et al. 1991) hypothesizes that people often demand a considerably higher price for an object that they own than they would be willing to pay to buy the same object. It is a consequence of combining two behavioral phenomena: loss aversion and reference dependence. These behavioral phenomena give a cognitive explanation of the financial illusion regarding revenue due to “*the extent of painful sensation*” (letter H). The policy for income tax withholding at the source of payment is an example of utilization of this type of fiscal illusion.¹⁸

In a recent study, Slemrod (2010) discusses emerging issues in behavioral tax economics. He includes as goals of this area of research: “*the question of whether individuals are susceptible to manipulation, or even exploitation, by the people who comprise the state*” (Slemrod 2010: 15). To address this question he refers to tax complexity and the role played by altruism in tax compliance. Slemrod (2010: 15) points out that “*tax complexity can affect the private decisions made by taxpayers, as well as the voting and other social choice behaviour of citizens.*” Several studies (e.g., Rupert et al. 2003; Boylan and Frischmann 2006; Chetty and Saez 2009) find experimental evidence that an

¹⁶ Kuhberger, (1998) estimates an average of 15 studies per year since the mid-80s. See these studies also for an overview of different theories to explain framing effect.

¹⁷ See e.g. Schepanski and Kelsey (1990), McCaffery et al. (2004), Gamage et al. (2010).

¹⁸ Schepanski and Shearer (1995) explain the withholding-phenomenon by the notion of reference point.

increase of complexity of the tax system leads to more misperception. As a result of this misperception, they observe changes in individuals' decision making. Blaufus et al. (2010) outline the policy implication of tax perception.¹⁹ They conclude that the distorted perception of taxes "*is also of interest from a political economics perspective because [it]... can be systematically used by politicians to reduce the perceived burden and thereby increase the likelihood of their being elected*" (Blaufus et al. 2010: 4). McCaffery and Baron (2006) describe some fundamental principles of behavioral public finance. They state: "*people are vulnerable to a wide range of heuristics and biases in evaluating tax systems, leading to inconsistent judgments and evaluations*". Because of it, "*politicians can manipulate public opinion, and tax system design can be volatile on account of the possibility of eliciting preference reversals through purely formal rhetorical means*" (McCaffery and Baron 2006: 106). Puviani (1903) and these recent studies seem to share the same ideas.

There is an extensive literature that deals with how the lack of visibility of taxes affects government behaviour. These studies are inspired by Mill's Hypothesis (1848) that the tax burden is underestimated through "hidden" (indirect) taxes. This hypothesis has been extensively tested (e.g. Sausgruber and Tyran 2005; Chetty et al. 2009; Finkelstein 2009). Indirectly, these studies provide some empirical evidence of two types of Puviani's fiscal illusions: "*Concealment of wealth acquired related to the payment of a tax, the existence and amount of which are unknown*" (letter A.2) and "*Mistakes regarding the person of the taxpayer*" (letter D).

Puviani's thought has roots in positive analysis, but his main contribution to modern economics is for normative purposes and policy implications. In this sense, fiscal illusions have the greatest contemporary relevance in a sub-discipline of behavioral economics often named as behavioral political economy. Literature in this area is still barely sufficient, but some valuable results are already available. Della Vigna (2009) reports findings of empirical studies on how rational actors (e.g. policy makers) respond to the non-standard features of other agents. These analyses reveal that politicians and institutions change their behaviour to respond to individual and collective biases. Della Vigna (2009: 365) claims that "*behavioral phenomena should be considered alongside standard phenomena in the policy design*". This statement is consistent with the underlying assumptions of Puviani's theory. Chetty (2010) suggests a number of implications for tax policy based on recent empirical studies on salience²⁰ and transparency of taxes. In our view, some of these policies (e.g. minimize non-transpa-

¹⁹ Other studies on tax perception include Enrick (1963, 1964); Gensemer et al. (1965); Dornstein (1987), Schokkaert (1988), Fujii and Hawley (1988); Williamson and Wearing (1996), Gemell et al. (2002), Campbell (2004), Sausgruber and Tyran (2005); Chetty et al. (2009); Sanandaji1 and Wallace (2010) and Fochmann et al. (2010).

²⁰ Chetty et al. (2009) use "tax salience" to refer to the visibility of the tax-inclusive price. Della Vigna (2009) includes Tax Salience as the consequence of taxpayer's limited attention.

rent tax incentives; invest in marketing; build tax incentives into prices) seem to be (unconsciously) inspired by the basic ideas proposed by Puviani at the beginning of the 20th century. Ura and Socker (2011) address the question of how to restore fiscal balance by assessing some behavioral predictions of the financial illusion theory. This study is one of the first attempts to apply Puviani's insights to revise existing macroeconomic theories of public spending preferences.

Finally, we refer to a "modern" type of fiscal illusion that has been proposed by Buchanan (1967) in his reassessment of Puviani's theory: the flypaper effect.²¹ Hines and Thaler's (1995) explanation of the flypaper effect may be considered another attempt to rationalize a form of fiscal illusion by the behavioral approach. They sustain that the flypaper effect is the product of two cognitive biases: loss aversion and a lack of fungibility. Although no reference to Puviani is made by the authors, in Hines and Thaler (1995) it is possible to find an implicit support of Wagner's (2003) belief of a connection between behavioral economics and Puviani's theory.

4. Fiscal illusions in the Italian tax system

The development and the spread of the media, the increase in the population's level of education and the growth of a liberal democratic culture within the electoral body have meant that the socio-political context has changed considerably from that to which Puviani was referring at the beginning of the twentieth century. Nevertheless, the theory of financial illusion has not lost its interpretative function, helping in the understanding of the various tax policy choices made within the current tax systems. This consideration leads us to believe that the main foundation of financial illusions is based on an essential characteristic of action, both that of the citizens-taxpayers-voters (a limited cognitive capacity) and of the policy maker (the aim to minimise the perception of the net tax burden).

This section presents a case study, certainly not exhaustive, of the main ways in which the perception of tax is reduced or the perceived benefit of certain public goods or services is increased within the Italian tax system. Following the order of the first section, it will show that the methods of fiscal illusion, whilst assuming more complex and often hybrid forms in comparison to the original classification, essentially retain their interpretative value.

The first financial illusion category, "*concealment of wealth acquired from individual sources*" (letter A), contains many, quite disparate, illusion strategies. Several of these methods share common traits with concealment strategies in other categories, such as the case of the "*concealment of wealth acquired related to the payment of a tax, the existence and amount of which are unknown*" (letter A.2). Indirect taxes on consumers, for example, can also be

²¹ The flypaper effect results when a dollar of exogenous grants-in-aid leads to significantly greater public spending than an equivalent dollar of citizen income: money sticks where it hits (Inman 2009).

included within these hybrid cases. The inclusion of a tax in the final sale price weakens the taxpayer-purchaser's perception of the effective tax burden. However, these kinds of indirect taxation can also be included in another category of illusions, that which assigns reductions in the perception of tax to "*mistakes regarding the person of the taxpayer*" (letter I).

Fasiani (1941) also includes an illusion strategy called "*false promises from rulers*" (letter A.5) in the "*concealment of wealth acquired from individual sources*" category. This includes all practices that the policy maker puts in place to alleviate the perception of the tax burden, through (false) statements seeking to declare the temporary or one-off nature of some forms of taxation. The cognitive explanation of the effectiveness of this illusion is the fact that the taxpayer feels most burdened at the time the tax is introduced. Subsequently, the human mind adapts progressively to the negative event (the reduction of disposable income) so that the repetitive nature of the "sacrifice" (the payment) and the passing of time will assimilate the payment of the tax into the person's behavioral pattern, with the consequent progressive reduction of the perceived burden. For this reason, the benefit for the political authority of declaring (promising falsely) the transitional or one-off nature of the tax is greatest at the moment the new (or more expensive) tax is introduced, because it is precisely at that moment that the taxpayer is most averse to the payment. Looking at the current Italian tax system, one can include, for example, the increases in specific taxes that were introduced for particular budgetary requirements and yet were maintained even after the emergency or financial need had ceased in this category of illusions generated by false promises (or by not following the reasonable expectations of taxpayers). The most prominent example is the excise tax on mineral oils²². In these cases, the government was able to take advantage of taxpayers' reduced aversion to a higher payment by linking the tax with a one-off event (as well as a link with a feeling of solidarity). However, once the specific need for funding the emergency has passed, the policy maker did not act as if the tax was a one-off by removing or reducing the excise, but instead maintained the level of taxation, with the tax revenue no longer restricted to the announced target. Later, new "one-off" needs for finance were added to the existing level of taxation. From the point of view of those in charge of fiscal policy this decision is a rational (optimal) choice to minimise the (perceived) burden per unit of revenue from the taxpayers, compared to a new tax of an equal amount. Psychologically this occurs because the tax burden associated with the one-off tax, having been "processed" through a process of adaptation, results as relatively less onerous for the

²² The additions to the excise taxes on mineral oils were introduced for the first time in order to fund the specific purposes of the 1935 Abyssinian War and, subsequently, the 1956 Suez crisis, the 1963 Vajont Dam disaster, the 1966 Florence floods, the 1968 Belice earthquake, the 1976 Friuli earthquake, the 1980 Irpinia earthquake, the 1983 mission in Lebanon, the 1996 mission in Bosnia, to renew the contract of transport workers in 2004, to purchase environmentally friendly buses in 2005, and to finance the arts funding body, the Fondo Unico per lo Spettacolo (FUS) in 2011. In all these cases an incremental policy was used, adding a surtax to the existing excise level.

masses. A policy maker aiming to reduce the overall tax burden will therefore prefer to act on the most visible forms of taxation (for example, direct taxes), rather than taxes, such as excise duties, which are firstly tolerated for reasons of solidarity or because of their one-off nature and later because they are barely visible when incorporated into the price of the goods.

The financial illusions regarding revenue caused by the “*concealment of the quantity, quality and duration of the public revenue in the budget*” (letter B) still apply today, despite the substantial changes in procedures, objectives, auditing processes (both internal, through parliament and the General Accounting Office, and external, through Eurostat and the European Union) and accounting principles that have occurred over the years since Puviani developed his theory. There is still some doubt as to whether public finance documents are an effective tool which allow the electorate to exercise a significant amount of control. The documents are issued by technocrats and are therefore only understandable by other technocrats, remaining inaccessible to almost all taxpayer-voters who can therefore from direct consultation only technically deduce the relevant information required to evaluate the financial and expenditure choices made by the ruling class. In addition to this obstacle, which is hard to overcome, there are also other forms of tax revenue concealment. This is proved by the frequency that “due diligences” are used at the beginning of legislation. These “due diligences” implicitly give weight to the hypothesis that the government may alter some parts of the budget, whilst still complying with the formal control procedures of the various designated bodies.²³ This kind of fiscal illusion includes (intentional) overly optimistic forecasts of increased revenue (for example, from battling tax evasion or by collecting the assessed higher taxes) and overly pessimistic revenue forecasts (which can in some cases lead to so-called “*tesoretti*” [goldmines]²⁴). The latter, which indicates more revenue than was expected, is particularly liable to be classified as a financial illusion because it is brought about by under-evaluating the level of revenues. In this case, the extra tax revenue arising from an (intentionally) overly conservative prediction could be used implicitly as funds to be utilised as cover for higher future costs. In this situation it will be easier to increase public spending in the annual budget in which the additional revenues are implemented, since financial obligations can be easily supported with the use of this extra revenue. The economic explanation for this phenomenon is not dissimilar to the *flypaper effect* (Oates 1988). The original interpreta-

²³ This is becoming standard practice when parliament changes from one political party to another. The procedure was established with the installation of the 14th parliament in 2001 and then repeated with subsequent parliaments in 2006 (the 15th) and 2008 (the 16th). The ‘due diligences’ are prepared by the State General Accounting Office and are now key references for some public finance documents, such as the DPEF (2002, 2006, 2008). They are even becoming common practice for local public finance at changes of parliament, for example those made in 2010 by the General Accounting Office for the Campania Region or at a municipal level for the city of Rome.

²⁴ A term used in Italian journalistic jargon to indicate extra tax revenue, which results in higher than expected revenues.

tion of this effect referred to evidence that a general transfer of funds from central government to a local authority leads to a greater increase in the decentralized entity's public spending than would occur given an equal increase in the private income of the collective. In the case of the "tesoretti", however, the "transfer" does not occur between entities on different levels, but it could be considered to happen in an intertemporal sense. In other words, a possible source of funding is subtly transferred to subsequent years, allowing a more substantial increase in public spending than would be the case if this increased spending were to be covered by new taxes or by a reduction of other budgetary expenses. As far as the overvaluation of the revenue obtained by fighting tax evasion is concerned, if these optimistic forecasts were not supported by an actual increase in resources the tax burden would increase, public spending would be reduced or debts increased to balance the budget. In this case, the need for corrective measures allows government authorities to postpone tax decisions on the basis of related needs (for example elections) or to circumvent the legal constraint that requires a statement of the source of funding for legislation that calls for new spending or reduced revenue.

The "tourist tax" (*imposta di soggiorno*) (pursuant to legislative decree n. 23/2011, art. 4 on "municipal fiscal federalism") can be included in the category of illusions provoked by the "combination of tax with the individual pleasures of the taxpayer" (letter C). This tax was foreseen as an optional means for municipalities to generate funds²⁵, payable by non-residents who stay in hotels, campsites, holiday villages and on farm holidays up to a maximum of five Euros per night per person, with the proceeds used to finance town maintenance and the regeneration of the historic centres. In this case, the tax authority (the municipality) exploits, on the one hand, the tourist-taxpayer's lesser aversion to the tax due to its association with a private source of pleasure (the holiday), and on the other hand, the separation between the subject affected (non-residents) and voters (residents). This tax will not "cost" anything in terms of electoral support, at least whilst the visitors' aversion to the tourist tax is unlikely to discourage them from staying in that town, thus causing a loss of income for local tourism operators. In other words, the fiscal illusion will be effective so long as the tax savings for residents achieved by exporting the tax are greater than the potential loss in disposable income resulting from lower revenues related to the reduced influx of tourists, who, due to the increased taxation, will choose other holiday destinations.

One can include within the category of illusions connected to "special public services, the utility of which is increased by individual pleasures" (letter D) all payments, allowances, stamp duties, rights, government concessions and anything else required by the Public Administration for the release of particular documents associated with taxpayers' personal achievements. These include certificates proving competency in a certain activity, registration with profes-

²⁵ In fact, it can be established with the appropriate municipal regulations, which must exclude all youth tourism organisations.

nal bodies, and the issuing of qualifications. These forms of contribution to public expenditure are often disproportionate in relation to their respective administration costs. Evidence of this imbalance can often be deduced by comparing them with the average amounts required by the authorities themselves for other types of documentation that follow similar procedures. A recent piece of tax legislation that may be included in this category is the specifically targeted levy (*imposta di scopo*), intended to partially cover the costs for public works financed by the municipalities²⁶. It was introduced in the 2007 financial bill and revived, with some modifications, within legislative decree n. 23/2011 on “municipal federalism”. The specifically targeted levy can be seen economically as a mechanism to partially internalise positive externalities that the taxpayer would receive following the construction of public works. In other words, the municipal authority may require assistance in the construction costs of public works, as this will (presumably) increase the value of the taxpayer’s property. This is classified as an illusion because if the Public Administration’s objective is to pursue something of general interest, there would be no need to finance the work by spreading the tax burden through the benefit principle, rather than the ability to pay principal favoured by the constitution. The citizen-taxpayer faced with a private benefit (presumed and potentially not requested), following the completion of the public works will be less averse to paying the tax. The illusion is therefore established when the citizen associates an individual pleasure (the increase in the value of his or her real estate) with the public works and the resulting tax burden.

However, the most significant example of the illusion of “special public services, the utility of which is increased by individual pleasures” in terms of revenue, is the existing taxation on state-run betting and gambling, overseen by the Ministry of Economy and Finance, through the Autonomous Administration of State Monopolies. In these cases, the tax accompanies the current or future enjoyment of entertainment and recreation, but also unpredictable immediate financial gain. These feelings, satisfying on a personal level, exert a considerable influence on the evaluation of the public service, so that it will always be affected by elements of utility generally not managed by the State. The consequence of this is a tendency to overestimate the extent of the service (the probability of winning) and therefore its expected utility.²⁷ The player, enthralled by the expected

²⁶ The tax is optional for municipalities and is due, in relation to the public works themselves, for a period not exceeding ten years (five in the wording of Law 296/2006) and is determined by applying an additional rate (to a maximum level of 0.05% in the wording of Law 296/2006) to the taxable base of the ICI (the town council rates tax).

²⁷ One explanation for the success of these games can be found in numerous experimental studies which have found that, in certain situations, the expected utility theory fails to predict and correctly represent the decisions of economic agents. In particular, as the *cumulative prospect theory* proposed by Tversky and Kahneman (1992) has shown, the behaviour of the *homo oeconomicus* in an uncertain situation shows: 1) an inclination towards risk with a low probability of winning, 2) an aversion for risk with a low probability of loss, 3) an aversion to risk with a high chance of winning, 4) an inclination towards risk with a high probability of loss. Points 1) and 4)

high level of individual pleasure, does not perceive the tax paid, since it remains largely overshadowed or in any case appears irrelevant compared to the passion of the game (the benefit of the service). In this regard, it is sufficient to note that the percentage of these games' takings used for the jackpot is on average between 35% and 75%.²⁸ Other forms of illusion that aim to further reduce the perception of the tax burden are also incorporated in this category. This includes the *Win for Life* lottery, where participants know that part of the amount paid is destined for *good causes* (for example, the post-earthquake reconstruction in the Abruzzo region). In this sense, these forms of taxation also produce a second type of fiscal illusion described by Puviani, the "*combination of tax with events that excite feelings of solidarity*" (letter E). This fifth strategy for financial illusion is feasible, however, not only by combining tax with events that bring feelings of solidarity, but also feelings of "*hate of a class or professional nature*" (Puviani 1973[1903]: 146-148 and Fasiani 1951[1941]: 126, 147-153). In other words, taxes paid to cope with natural disasters, military peace missions, etc.²⁹, and those that evoke feelings of social aversion or hate are less burdensome for taxpayers. A recent example that fits this last category is the so-called "Robin Hood tax" established in 2008, which increased taxation on the income of corporations working in the oil, banking and insurance sectors.³⁰ This tax, with a deliberately evocative name, brought about an increase in taxation for the largest firms in the oil sector and holding companies in the financial sector, "guilty" respectively of disproportionate profits during a recession and of causing the financial crisis.³¹

Another category of financial illusion is the "*juxtaposition of an avoidable greater evil with the lesser evil of the tax*" by the policy maker (letter F). A case in point was the 'one-off contribution for Europe', better known as the 'Eurotax', which was established in December 1996. On that occasion, the tax was motivated by the potentially disastrous consequences facing Italian citizens had Italy not entered the European Monetary Union. Since then, this form of opposition between the "cost" of leaving the monetary union and the "sacrifice" associated with restrictive fiscal policies has been continuously revived, using

prove the apparent lack of reason in the success of games (e.g. *Superenalotto*) with a statistically insignificant chance of winning. See Dell'Anno (2006) for a review of the contribution of behavioral economics to economic analysis in conditions of uncertainty.

²⁸ For instance, for the *Superenalotto* it is a little over 35%, for *Win for Life* it is 65%, and for instantaneous, remote participation lotteries (scratch cards) it is between 65% and 75%.

²⁹ There are numerous examples that can be placed in this category, which have in part already been discussed above: from the surtaxes on excise duties on mineral oils to establishing new lottery games (e.g. *Win for Life*).

³⁰ For energy companies with a turnover in excess of 25 million Euros the IRES (corporate income tax) rate is raised from 27.5% to 33%. For the banks the 'Robin Hood tax' is reflected in the partial non-deductibility of interest payable. For insurance companies the tax on actuarial reserves for life insurance lines increased in 2008 from 0.3% to 0.39% and from 0.3% to 0.35% from 2009.

³¹ Other, less current examples for this category of financial illusions are the tax designed to hit war profiteers (Fasiani 1941: 138), or the laws introduced for the expropriation of Jewish property during World War II.

the threat that an increased tax burden or lower public spending was the necessary cost to avoid the greater evil of overshooting the parameters of the Maastricht Treaty³² and the consequent exit from the Euro area.

The category of illusions making use of a “*combination of tax burdens between various taxes and with other burdens*” (letter G) can be the source of two tax policies. The first one suggests to design more complex tax systems to increase the misperception of tax burden (“*combination of tax burdens between various taxes*”). This category includes choosing a tax policy which concentrates the payment of different types of taxes onto a single deadline or a single event, so as to alter and confuse the taxpayer’s perception of the individual taxes. An example of this strategy is the case of taxes related to the transfer of real estate. In these situations, the agreed price to the seller, the notary’s professional fees, registration, land registry and mortgage fees and possibly VAT are paid together. This has the effect of confusing the buyer’s perception of the breakdown of the amount paid in professional fees, taxes, administrative costs, and so on.

The second type of pro-illusion tax policy (“*combination of tax burdens [...] with other burdens*”) includes the numerous contributions requested by Public Administration, which are very frequently unjustified given the services provided. A perfect example in this regard is the money requested of citizens by the municipalities for services such as the transportation, burial and exhumation of the remains of people who have died. The taxes legally required in these cases are paid with less aversion, not only because the service is seen as a one-off and it is connected to a compensatory payment,³³ but also because of the emotions the taxpayer is feeling at the time.

The financial illusion regarding revenue due to “*the extent of painful sensation*” (letter H) is one of the most common strategies through which the real burden of a tax is made to seem lighter than it truly is. Typical examples are monthly tax payments (e.g. excises taxes for utilities) or the splitting achieved by withholding the personal income taxes of employees or withholding tax returns for self-employed workers.

Moreover, probably the best known example of financial illusion is that defined by Fasiani (1951[1941]: 126, 160-162), still recalling Puviani (1973[1903]: 179ff.), as a “*mistake regarding the person of the taxpayer*” (letter I). This type of illusion is typical in the payment of consumption tax and, in the Italian case, it is clearest in regard to VAT. It affects all stages of the production and distribution process, but it is a burden that (usually³⁴) lands on the final consumer,

³² Forte (2004) examines the theme of financial illusion and compliance with the Maastricht Treaty.

³³ Even though, in the vast majority of cases, these services are actually provided by private companies.

³⁴ An exception, in fact, are the so-called exempted transactions for which the tax is not applied to the final stage, so there is no right to a refund of the tax paid on the purchase of intermediate goods. This type of operation, therefore, does not have a bearing on the final consumer and the tax is borne by the company that sells to the final consumer (e.g., insurance, financial, health and urban transport services).

whilst it remains neutral for the “*de jure*” taxpayers. VAT transfers the effective burden from the “*de jure*” taxpayer to the “*de facto*” taxpayers (the consumers). This effect is in reality not (completely) perceived by consumers, who do not recognise clearly from the price paid for the relevant product or service how much constitutes the tax burden and how much corresponds to the transfer of funds. Non-uniform rates and special arrangements make it even more difficult to understand the real tax burden.

Lastly, we will consider a recent tax measure that could also be ascribed to the “*mistake regarding the person of the taxpayer*” category of financial illusion, although its nature is probably more complex than both Puviani (1903) and his main interpreter (Fasiani 1941) had in mind. This refers in particular to article 1 of Decree Law (D.L.) 93/2008, which provided an ICI (*Imposta Comunale sugli Immobili*) exemption for the property used as a taxpayer’s main residence, with the exception of mansions, villas and castles. This law specifies, in fact, that the reduced ICI revenue should be compensated by a compensatory payment (art. 1, c. 4, D.L. 93/2008). In other words, the benefit (clearly) received by the taxpayer from the immediate reduction of the tax can feed the financial illusion, as the lower tax revenue is offset by increases in transfers of funds from central government to the municipalities (much less visible). The (optimistic) financial illusion has in this case allowed the high-level policy maker to favour presenting the tax measure to a significant number of taxpayers as a tool to implement a general reduction in the tax burden, whilst it actually works out as an essentially redistributive policy, through a simultaneous reduction of other (less visible) forms of public expenditure or an increase in other forms of taxation to finance the compensatory payments. In essence, the legislative measures that followed established that the compensation payments made to the municipalities would be financed through a reduction in the Fund for Underused Areas (the government’s principal tool for structural and infrastructural projects in underused areas, in addition to local means) and the Fund for University Financing. In other words the tax pressure on the holders beneficial property rights of a significant value³⁵ was lowered through a reduction in the public expenditure destined for economically under-developed areas and for universities.

For expenditure forms of financial illusion it should be noted that, unlike those regarding revenue, modern taxation systems make them more difficult to achieve, thanks in particular to increased transparency and control procedures. Due to their nature (political and administrative) and types of relevant authorities (national or international), these are much more stringent and effective than they were at the beginning of the last century. However, the funding of certain religions or State operations through the so-called *eight per thousand* of income tax could be included among the list of expenditure illusions within the current

³⁵ Real estate used as a main house of modest value, in fact, had already effectively been exempt from the proposed amendment to Law 244/2007 (Finance Law for 2008), with the amendment to the art. by art. 8 of the Decree Law 504/1992.

Italian tax system. This form of illusion can be placed in the “*concealment of expenses through institutes and accounting and administrative practices*” category (letter B), and it would occur with regard to the distribution of the *eight per thousand* for those taxpayers who do not state an explicit preference.³⁶ Although the criterion in question does not violate any legislation,³⁷ it can be considered an illusion because the majority of taxpayers (on average more than 60%), while not expressing any preference, will nevertheless donate their *eight per thousand* to the subjects according to the Concordat, in the percentages determined by other taxpayers’ choices. While the logic of the system of allocation chosen by the legislator in 1985 is understandable, it is impossible not to detect an anomaly in the fact that six of the seven³⁸ beneficiaries receive most of their funds not from those who wanted to designate their donation to them, but by those who did not express any intention to do so (about 600 million Euros in 2008). If, as might be assumed, one of the principal reasons for the high number of taxpayers who do not express a choice is the (erroneous) perception that not making a choice equates to not distributing the *eight per thousand* - which some people expect to mean that it remains with the entity that holds the other 99.2% of the revenue (the State) – then the policy maker’s dismissing attitude towards the allocation criteria is worthy of discussion.³⁹ This disinterest could therefore be interpreted as a modern administrative illusory practice to secretly favour some of the beneficiaries of the Concordat, through public expenditure (revenue transfer) that exceeds the (expressed) will of taxpayers.

Conclusions

This research has offered a revisiting and reappraisal of the thinking of Amicare Puviani, in relation to his main work, the “Theory of financial illusion”.

³⁶ In fact, according to art. 47, paragraph 3, of Law 222/1985, the expressed preference does not determine the intended purpose of one’s “own” share of the tax revenue, but that of an average rate which is equal for all citizens. It is calculated by deducting the *eight per thousand* from the total income tax revenue, before determining the total percentages for each of the various beneficiaries as determined by the preferences expressed. In this way the preferences of all taxpayers have the same value, regardless of their revenue. This mechanism is therefore less a system in which the individual taxpayer identifies to whom he “donates” part of his tax, and more a sort of vote on how the State should handle this share of revenues.

³⁷ See the Decision from 29th March 2007 of the European Court of Human Rights (Strasbourg) on the admissibility of Application No. 23123/04 (the Spampinato versus Italy case).

³⁸ “The Assemblies of God of Italy” (the “Waldensian Table” until 2009), in fact, does not participate in the distribution of revenue not explicitly donated by taxpayers, so they return this “second” quota to the state. There are currently other denominations waiting for inclusion among the beneficiaries, the arrangements with the Italian State of which were completed in 2007.

³⁹ In addition it should be added that the State, as a beneficiary, whilst not encouraging greater information about the sharing mechanism of this quota, does not use any form of advertising to increase preferences for itself (unlike the other competitors).

To our knowledge there is no literature that compares Puviani's insights both with recent development of behavioral public finance and their relevance on contemporary tax policy. The present study aims to fill this gap. Thus, we believe that it remains of great relevance, from both an operational point of view and a methodological perspective.

For the former, although some types of illusion, especially regarding expenditure, have become outdated and others have been developed and refined, much of the structure proposed by Puviani retains a significant interpretative value. This claim has been proven by clarifying some examples of Italian tax policy which fit the categories defined by the theory of fiscal illusion.

As for the methodological perspective, it is important to emphasise that this theory is based implicitly on the assumption that the cognitive aspect (perception of the burden of the tax and of the benefit associated with public expenditure) is not only essential for understanding the financial phenomenon but also has an important prescriptive role. It provides the policy maker with an indication of the strategies which can maximize collective welfare, whilst minimising the perception of the burden connected to financing public spending.

Political authorities have always had an interest in reducing the perception of tax burden or increasing the benefits of public spending. This interest can be pursued by manipulating the fact that the assessment of reality can be distorted, both through tricks of a communicative nature and, as focussed upon in this research, by appropriately structuring the tax system and the methods for providing public expenditure. It is, therefore, unsurprising that one of the fathers of *public choice's* approach, the Nobel laureate James Buchanan, was the most important advocate of re-evaluating the Italian scholar, who was perhaps too quickly underestimated by his contemporaries. Wagner (2003: 279) states that "... had the Italian tradition in public finance emerged instead in the English-speaking world, the public choice devolution would have occurred half a century earlier." Following Wagner, we believe exists a relationship between the Puviani's and behavioral approach of public finance. In this study, we offer some illustrative examples of the similarities between behavioral phenomena (e.g. time-inconsistent preferences, reference dependence, framing effect, endowment effect, loss aversion, lack of fungibility) and fiscal illusions.

In bibliometrics there is a phenomenon known as the "Sleeping Beauty".⁴⁰ It occurs when a scientific publication remains uncited for a long time, until the rest of the research community discovers its value and starts citing it. Using Van Raan's metaphor, this study is aimed at suggesting to the Prince (i.e. behavioral

⁴⁰ It has been proposed by Van Raan (2004). He defines a Sleeping Beauty in science as "a publication that goes unnoticed (sleeps) for a long time and then, almost suddenly, attracts a lot of attention (is awakened by a prince)." Van Raan calls this phenomena also as "the 'Mendel syndrome', mentioned after Gregor Mendel (Mendel 1865) whose discoveries in plant genetics were so unprecedented that it took thirty-four years for the scientific community to catch up to it" (Van Raan 2004: 461).

public finance) that it may be the time to awaken once again (i.e. after the public choice approach) the “Sleeping Beauty” (i.e. Puviani’s theory).

In conclusion, there remains much to explore about the existence and relevance of the micro- and macroeconomic effects of different financial illusion strategies. This analysis, together with the interpretive support of behavioral public economics and the most powerful tools of empirical research now available, make the theory of financial illusion a fruitful field of research in the forthcoming years.

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ABSTRACT

This work analyses the phenomenon of fiscal illusion (Puviani, 1903) in the context of the Italian tax system. Financial (or fiscal) illusion refers to mechanisms which cause a cognitive alteration on the part of the taxpayer regarding the evaluation of the costs and benefits of public policies.

Puviani (1903) was the first to classify the different types of financial illusions. He highlighted the main strategies used to hide the real costs of financing public goods and services through taxes (illusions on revenue) or to overestimate their usefulness (illusions on expenditure).

The main conclusions of the work are that: (i) from a methodological point of view, there is a connection between Puviani's theory of fiscal illusion and some of the assump-

tions of the behavioral approach and (ii) from an operational point of view, it is a useful tool to understand the motives that could have inspired several recent taxes and legislative measures within the Italian tax system. These results support the relevance of Puviani's theory to the contemporary theory and practice of public finance.

Jel Classification: H20, H3, B29

Keywords: Financial illusion, fiscal illusion, tax illusion, Puviani, Italian school of public finance