

# The Consequences of Fiscal Illusion on Economic Growth

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## ***Abstract***

This work discusses the impact of fiscal illusion on economic growth. Its main contribution highlights the need for reducing the expected return from participating in fiscal illusion practices in order to prevent adverse effects on economic growth. Additionally, this model reinforces the advantages of productive public goods (not deviated for political unproductive rents) in order to mitigate the negative effects of fiscal illusion.

The original sense of Puviani's ideas suggested fiscal illusion as a solution to a prior question: how can resistance to governmental actions be diminished from the perspective of taxpayers?<sup>1</sup> According to Buchanan (1967), the solution mainly studies fiscal illusion in the revenue side of a budget. Illusion can be inserted into revenues in many ways: obscuration of the individual shares in the opportunity cost of public outlays; utilization of institutions of payments that are planned to bind the requirement to a time period or an occurrence which the taxpayer seems likely to consider cheering; charging explicit fees for nominal services provided upon the occurrence of impressive or pleasant events; levying taxes that will capitalize on the sentiments of social fear, making the burden appear less than might otherwise be the case; use of 'scare tactics' that have a propensity to make the alternatives to particular tax proposals seem worse than they are; fragmentation of the total tax weight on an entity into numerous small levies; and opacity of the final incidence of the tax. The final result of this illusion is always gathering higher amounts of public revenues with a minimum of electorate resistance.

Due to the stimulation from Buchanan's rediscovery, this kind of fiscal illusion can properly be labelled the Puviani–Buchanan (P–B) fiscal illusion.

However, as far as we are aware, there is a very significant absence of studies reporting the consequences of P–B fiscal illusion on economic growth rates. We can point out some studies relating fiscal illusion and Public Finances (Oates, 1988; Rogers and Rogers, 1995; Easterly, 1999), but we have no framework discussing how economic growth will react to different levels of fiscal illusion. This work, more precisely the following section, intends to contribute to this purpose, developing the standard AK model (Barro and Sala-i-Martin, 1995, pp. 152-158).

### 3.1 FISCAL ILLUSION AND A RENT-SEEKING GOVERNMENT

The production function for a given firm  $i$  takes an AK Cobb-Douglas form

$$Y_i = AL_i^{1-\alpha} K_i^\alpha G^{1-\alpha}, \quad (3.1)$$

where  $0 < \alpha < 1$ ,  $A$  is the level of technology,  $L$  is labor input,  $K$  is capital input and  $G$  is the total of government purchases. Therefore, it is assumed that production for each firm is characterized by constant returns to scale in the private inputs, labor and capital. Additionally, it is also assumed that the aggregate labor force,  $L$ , is constant. For a fixed  $G$ , the economy would be characterized by diminishing returns to the accumulation of aggregate capital,  $K$ . By stating that  $G$  rises along with  $K$ , we assume that (3.1) will not be characterized by diminishing returns and that an increase in  $G$  raises the marginal products of  $K$  and  $L$ .

Now, assume that the government has a balanced budget. This balanced budget is financed by a proportional tax at rate  $t$  charged on the aggregate of gross output

$$G = tY . \quad (3.2)$$

We also suppose that  $t$  and, hence, the expenditure ratio,  $G/Y$ , are constant over time.

In our first case, it is assumed that there is only fiscal illusion perceived by firms, that is, firms know there is an announced proportional tax rate  $t$ , however due to the level of fiscal illusion  $f^3$ , firms actually pay an effective tax rate  $(1+f)t$ . In this first situation,

As there are no transitional dynamics, the growth rates of  $c$ ,  $k^d$ , and  $y$  all equal the same constant,  $\gamma_{de,rs}$ <sup>5</sup>.

$$\gamma_{de,rs} = \frac{1}{\theta} \alpha A^{\frac{1}{\alpha}} (Lt)^{\frac{1-\alpha}{\alpha}} [1 - (1+f)t] - \delta - \rho . \tag{3.6}$$

The effects of government on growth are obtained through two channels: the term  $1 - (1+f)t$  represents the negative effect of effective taxation on the after-tax marginal product of capital, and the term  $t^{\frac{1-\alpha}{\alpha}}$  represents the positive effect of  $G$ , the public services, on the marginal product.

Computing  $\frac{\partial \gamma}{\partial t}$  we get

$$\frac{\partial \gamma_{de,rs}}{\partial t} = - \frac{A^{\frac{1}{\alpha}} L (Lt)^{\frac{1}{\alpha}-2} (\alpha + ft + t - 1)}{\theta} . \tag{3.7}$$

Therefore, the golden rule for the size of the government finds a maximum<sup>6</sup> at

$$t = \frac{1 - \alpha}{1 + f} . \tag{3.8}$$

The condition (3.8) corresponds to the natural efficiency condition for the size of the government  $\frac{\partial Y}{\partial G} = 1 + f$ , i.e., as the social cost of a unit of  $G$  is  $1+f$  and the benefit is the marginal product of public services, the efficiency condition equates the marginal cost to the marginal benefit.

Following (3.8), we can observe that the golden-rule growth rate is 888

If we want to check the effects of fiscal illusion on the optimal decentralized growth rate, we calculate its partial derivative:

$$\frac{\gamma_{de rs}^*}{f} = \frac{\alpha A^{\frac{1}{\alpha}} \frac{L(\alpha)^{\frac{1}{\alpha}}}{f}}{\theta L}$$

### **3.2 FISCAL ILLUSION AND A BENEVOLENT GOVERNMENT**

In this case, (3.1) retains the same production function, but (3.2) is now modified into (3.11):

$$G = (1 + f)tY. \quad (3.11)$$

Therefore, we are assuming that the total of government purchases react positively to

These changes will lead to a different growth rate:

$$\gamma_{sp,b} = \frac{1}{\theta} \alpha A^{\frac{1}{\alpha}} \frac{L(1-\alpha)^{\frac{1-\alpha}{\alpha}}}{1+f} - \delta - \rho . \quad (3.15)$$

Checking what happens to the social planner's problem of a benevolent government, we find that the differences between the social planner's solutions and the decentralized solutions are smaller in this second case, indicating a proximity (smaller wedge) between the Pareto solution and the rational choices of households and firms.<sup>7</sup>

With few assumptions<sup>8</sup>, it is straightforward to conclude that

$$\gamma_{de,rs} < \gamma_{de,b} < \gamma_{sp,b} < \gamma_{sp,rs} .$$

These inequalities show that a higher level of P–B fiscal illusion originating in political rents used for private and unproductive directions generates low growth rates. When fiscal illusion is characterized by smaller values or when the political rents are being invested in the economy (becoming productive), we face increasing rates.

Therefore, we have shown that the P–B fiscal illusion can be a significant determinant in the process of economic growth, functioning as a source of attrition: higher levels of fiscal illusion prejudice the economic growth rates. Therefore, fighting fiscal illusion, making public finances more transparent, is important for a healthy budget composition and for the overall economic growth.

#### 4. CONCLUSION

This work demonstrated that the controversial question involving the role of fiscal illusion practices on public finances is not recent, but can be thought of as deriving from the discussion invoked by Puviani (1903) and substantially enriched by Buchanan (1960).

In spite of the fact that the 'Fiscal Illusion' School of Buchanan and Wagner (1977) identifies higher levels of fiscal illusion promoting increasing increments in the size of the public sector, this work developed a model that predicts higher levels of fiscal

