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ESTIMACIONES ADITIVAS DE VISIBILIDAD FISCAL EN PAISES CON TRES NIVELES TERRITORIALES DE GOBIERNO

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I. INTRODUCCION

An insufficient fiscal visibility\(^1\) of burden and benefit of public revenue and expenditure can introduce important biases in both the size and pattern of government budgets [Wagner, 1976; Pommerehne and Scheneider, 1978; Oates, 1988]. That is why to measure and raise such visibility is so important.

Initial indicators were defined to take the influence on fiscal visibility of internal structures of types of public revenue and expenditure into account; and first estimations were made for several territorial government levels of the European Union member countries [Roig-Alonso, 1998, 2000, 2001]. But because of the multiplicative combination of relevant parameters used for such indicators, a 0 estimate will always result as anyone of such parameters was also 0.

An alternative to measure visibility of burden and benefit of a public budget can consist of combining these parameters in an additive instead of a multiplicative form. Then a null parametric value will not necessarily result in a 0 estimate, and calculations can show higher final values and be much more sensitive to values of other non-null parameters.

The aim of this contribution, based on a recent research project carried out at the Public Finance and Public Sector Economics Research Unit of the University of Valencia, is to present:

A) New additive - instead of multiplicative - indicators to be applied to the several - central, intermediate, local - territorial government levels of OECD member countries from data and qualitative information provided by the International Monetary Fund.

B) First alternative estimates of fiscal visibility referred to the several territorial government levels of Australia, Austria, Canada, Germany, Spain, Switzerland, and USA, for which the International Monetary Fund has data available.

Conclusions and comments are offered at the end of the paper.

2. AN INDEX OF BURDEN VISIBILITY OF TOTAL PUBLIC REVENUE
In general, for every level, \( L \), of territorial public administrations of an economy, a visibility index, \( V_{L}^{R} \), of its total public revenue, \( R \), was defined in such a way that \( 0 \leq V_{L}^{R} \leq 1 \), based on the following formula:

\[
V_{L}^{R} = \sum_{i=1}^{n} x_{iL}^{R} y_{iL}^{R}
\]

where:

a) \( n \) = number of types of public revenue \( R \) for level \( L \) of territorial public administrations;

b) \( x_{iL}^{R} \) = relative financial weight of public revenue \( R \) of type \( i \) for level \( L \) of territorial public administrations, with \( i = 1, 2, ..., n \); that is to say:

\[
0 \leq x_{iL}^{R} = \frac{GF_{iL}^{R}}{\sum_{i=1}^{n} GF_{iL}^{R}} \leq 1
\]

with \( GF_{iL}^{R} \) = absolute quantity of public revenue \( R \) of type \( i \) for level \( L \) of territorial public administrations;

c) \( y_{iL}^{R} \) = visibility or perceptibility (for the policy intended - or legal - revenue-provider) factor of burden of public revenue \( R \) of type \( i \) to which level \( L \) of territorial public administrations is entitled, with \( 0 \leq y_{iL}^{R} \leq 1 \).

3. BURDEN VISIBILITY OF A SPECIFIC PUBLIC REVENUE

An objective estimate of \( y_{iL}^{R} \) - factor of perceptibility of the direct burden by a policy intended - or legal - revenue-provider of a public revenue \( R \) of type \( i \) for level \( L \) of territorial public administrations - was initially defined (Roig-Alonso, 1998) according to the following criteria:

\[
y_{iL}^{R} = v_{iL}^{R} p_{iL}^{R} m_{iL}^{R} q_{iL}^{R} i_{iL}^{R}
\]  

(1)

where:

a) \( v_{iL}^{R} \) = voluntary (\( v_{iL}^{R} = 0 \)) or coercive (\( v_{iL}^{R} = 1 \)) nature of public revenue \( R \) of type \( i \) for its policy intended - or legal - revenue-provider (coerciveness parameter), with \( 0 \leq v_{iL}^{R} \leq 1 \).

b) \( p_{iL}^{R} \) = full (\( p_{iL}^{R} = 0 \)) or null (\( p_{iL}^{R} = 1 \)) proportionality of the quantity of public revenue \( R \) of type \( i \) - the burden of which is borne by a policy intended - or legal - revenue-provider - to the cost of efficiently producing the good or service specifically received by him in return for his burden (proportionality parameter), with \( 0 \leq p_{iL}^{R} \leq 1 \).

c) \( m_{iL}^{R} \) = full (\( m_{iL}^{R} = 1 \)) or null (\( m_{iL}^{R} = 0 \)) information to the policy intended - or legal - revenue-provider on the concept of the direct burden he is bearing when providing public revenue \( R \) of type \( i \) (concept-information parameter), with \( 0 \leq m_{iL}^{R} \leq 1 \).
\( d) q_{iL}^R = \text{full } (q_{iL}^R = 1) \text{ or null } (q_{iL}^R = 0) \) information to the policy intended - or legal - revenue-provider on the quantity of the direct burden he is bearing when providing public revenue \( R \) of type \( i \) (quantity-information parameter), with \( 0 \leq q_{iL}^R \leq 1 \).

e) \( i_{iL}^R = \text{intermediate } (i_{iL}^R = 0) \text{ or final } (i_{iL}^R = 1) \) position of the policy intended - or legal - revenue-provider in relation to his direct burden (burden-shifting parameter), with \( 0 \leq i_{iL}^R \leq 1 \).

In any case, all \( V_{iL}^R, x_{iL}^R, y_{iL}^R, v_{iL}^R, p_{iL}^R, m_{iL}^R, q_{iL}^R \) and \( i_{iL}^R \) were continuous variables ranging from 0 to 1, \( i \) and \( L \) were subscripts for the type of revenue and level of territorial public administration respectively and \( R \) was a superscript - non an exponent - for public revenue.

Because of the multiplicative combination of such five significant parameters in \( y_{iL}^R \), as any one of them takes a null value a 0 estimate will necessarily result, although other parameters can show high values.

In order to avoid this problem, this visibility or perceptibility factor can be redefined in an additive - instead of multiplicative - form, as follows:

\[
y_{iL}^R = \left[ v_{iL}^R + p_{iL}^R + m_{iL}^R + q_{iL}^R + i_{iL}^R \right] / 5
\]

\( 4. \text{ INDEX OF BENEFIT VISIBILITY OF TOTAL PUBLIC EXPENDITURE} \)

Similarly to the case of public revenue, for every level of territorial public administrations, \( L \), a general index, \( V_L^E \), of benefit visibilit y of total public expenditure, \( E \), was be defined in such a way that \( 0 \leq V_L^E \leq 1 \), based on the following formula:

\[
V_L^E = \sum_{f=1}^{q} x_{fL}^E y_{fL}^E
\]

where:

a) \( q = \text{number of types of public expenditure } E \text{ performed by level } L \text{ of territorial public administrations} \);

b) \( x_{fL}^E = \text{relative financial weight of public expenditure } E \text{ of type } f \text{ performed by level } L \text{ of territorial public administrations} \), with \( f = 1, 2, ..., q \); that is to say:

\[
0 \leq x_{fL}^E = \frac{GF_{fL}^E}{\sum_{f=1}^{q} GF_{fL}^E} \leq 1
\]

with \( GF_{fL}^E = \text{absolute quantity of public expenditure } E \text{ of type } f \text{ performed by level } L \text{ of territorial public administrations} \);

c) \( y_{fL}^E = \text{visibility or perceptibility (by the policy intended - or legal - consumer) factor of benefit of public expenditure } E \text{ of type } f \text{ performed by level } L \text{ of territorial} \)
public administrations, where $0 \leq y_{fL}^E \leq 1$.

5. BENEFIT VISIBILITY OF A SPECIFIC PUBLIC EXPENDITURE

An objective estimate of $y_{fL}^E$ (factor of perceptibility by a policy intended - or legal - consumer of the direct benefit of a public expenditure $E$ of type $f$ performed by level $L$ of territorial public administrations) was initially defined according to the following criteria:

$$y_{fL}^E = v_{fL}^E p_{fL}^E m_{fL}^E q_{fL}^E i_{fL}^E$$

(3)

where:

a) $v_{fL}^E = \text{null (} v_{fL}^E = 0 \text{)}$ or full ($v_{fL}^E = 1$) consumption of a publicly supplied good of type $f$ by its policy intended - or legal - user or beneficiary (consumption parameter), with $0 \leq v_{fL}^E \leq 1$.

b) $p_{fL}^E = \text{full (} p_{fL}^E = 0 \text{)}$ or null ($p_{fL}^E = 1$) proportionality of cost of efficient production of the publicly supplied good of type $f$ to a specifically requited monetary burden borne by the policy intended - or legal - user or beneficiary (proportionality parameter), with $0 \leq p_{fL}^E \leq 1$.

c) $m_{fL}^E = \text{full (} m_{fL}^E = 1 \text{)}$ or null ($m_{fL}^E = 0$) information to the policy intended - or legal - consumer or user on the concept of the direct benefit he is receiving when public expenditure $E$ of type $f$ is being performed (concept-information parameter), with $0 \leq m_{fL}^E \leq 1$.

d) $q_{fL}^E = \text{full (} q_{fL}^E = 1 \text{)}$ or null ($q_{fL}^E = 0$) information to the policy intended - or legal - consumer or user on the quantity of the direct benefit he is receiving when public expenditure $E$ of type $f$ is performed (quantity-information parameter), with $0 \leq q_{fL}^E \leq 1$.

e) $i_{fL}^E = \text{intermediate (} i_{fL}^E = 0 \text{)}$ or final ($i_{fL}^E = 1$) position of the policy intended - or legal - user or beneficiary of the publicly supplied good of type $f$ in relation to his direct benefit (benefit-shifting parameter), with $0 \leq i_{fL}^E \leq 1$.

Similarly to the previous case of public revenue, all $V_L^E$, $x_{fL}^E$, $y_{fL}^E$, $v_{fL}^E$, $p_{fL}^E$, $m_{fL}^E$, $q_{fL}^E$ and $i_{fL}^E$ were continuous variables always ranging from 0 to 1, $f$ and $L$ were subscripts for the type of public expenditure and level of territorial public administration respectively and $E$ was a superscript - non an exponent - for public expenditure.

Again, as anyone of such five parameters takes value 0, the multiplicative combination of them in $y_{fL}^E$ necessarily results in a 0 estimate although other parameters can show high values; and in order to avoid this problem, this visibility or perceptibility factor can be redefined in an additive - instead of a multiplicative - form, as follows:
\[ y_n^E = \left[ v_n^E + p_n^E + m_n^E + q_n^E + i_n^E \right] / 5 \]  

(4)

6. ESTIMATES ON BURDEN VISIBILITY OF TOTAL PUBLIC REVENUE

Tables 1, 2, and 3 present alternative and more recent estimates on burden visibility of public revenue and grants of Australia, Austria, Canada, Germany, Spain, Switzerland, and USA by applying index

\[ V_i^R = \sum_{i=1}^{n} x_i^R \cdot y_i^R \]

previously defined, to the central, intermediate, and local fiscal sub-systems now in force in these countries.

Such values have been calculated mainly from information and primary data on public cash flows provided by both the Commission of the European Communities\(^2\), reflecting tax structures of - and the institutional situation in - every member country on January 1, 1992, and the International Monetary Fund\(^3\).

To obtain a sensitivity analysis, three hypotheses on minimum, plausible, and maximum shifting of tax burden have been assumed, giving rise to the corresponding series of maximum, \(V_M\), plausible, \(V_p\), and minimum, \(V_m\), values of weighted-visibility estimates of revenue burden for policy intended - or legal - revenue-providers. The initial values for the fiscal visibility parameters \(v\), \(p\), \(m\), \(q\), \(i_M\), \(i_P\), \(i_m\) are the same previously used for the multiplicative version of indicators [Roig-Alonso, 1998, 2000, 2001].

As regards results, according to:

A) Table 1, presenting \(V_M\), \(V_p\), and \(V_m\) visibility estimates of burden of revenue and grants for the consolidated central government level, USA has the most visible sub-system, Switzerland having the least visible one: plausible values range from 86.40 to 77.32, with a difference of 9.08 points. Differences among OECD countries compared are not very significant in general.

B) Table 2, presenting \(V_M\), \(V_p\), and \(V_m\) visibility estimates of burden revenue and grants for intermediate level government, Canada has the most visible intermediate sub-system, Spain having the least visible one: now plausible values range from 72.99 to 39.18, with an important difference of 33.81 points, this level of government showing the highest differences among such OECD countries.

C) Table 3, presenting \(V_M\), \(V_p\), and \(V_m\) visibility estimates of burden revenue and grants for the local level, Austria has the most visible local sub-system, USA having the least visible one: plausible values range from 70.00 to 55.04, with a difference of 14.96. At this level of government differences between countries are quite significant.
<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>$V_M$</th>
<th>$V_P$</th>
<th>$V_m$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>92.81</td>
<td>86.30</td>
<td>78.86</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>88.69</td>
<td>82.26</td>
<td>75.87</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>90.44</td>
<td>83.94</td>
<td>77.47</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>87.78</td>
<td>80.86</td>
<td>73.97</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>90.65</td>
<td>84.10</td>
<td>77.58</td>
</tr>
<tr>
<td>Switzerland, 1998</td>
<td>83.15</td>
<td>77.32</td>
<td>71.52</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>93.85</td>
<td>86.40</td>
<td>79.00</td>
</tr>
</tbody>
</table>

TABLE 2
Estimates of Public Revenue Visibility in the European Union
Intermediate Government Level
(percentages)

<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>V_M</th>
<th>V_P</th>
<th>V_m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>58.29</td>
<td>54.88</td>
<td>51.47</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>58.50</td>
<td>54.97</td>
<td>51.46</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>78.34</td>
<td>72.99</td>
<td>67.65</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>75.28</td>
<td>70.20</td>
<td>65.15</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>41.11</td>
<td>39.18</td>
<td>37.25</td>
</tr>
<tr>
<td>Switzerland, 1998</td>
<td>64.69</td>
<td>60.61</td>
<td>56.53</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>64.46</td>
<td>60.68</td>
<td>56.92</td>
</tr>
</tbody>
</table>

TABLE 3
Estimates of Public Revenue Visibility in the European Union
Local Government
(percentages)

<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>( V_M )</th>
<th>( V_P )</th>
<th>( V_m )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>70.71</td>
<td>66.23</td>
<td>61.76</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>74.98</td>
<td>70.00</td>
<td>65.03</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>60.71</td>
<td>56.98</td>
<td>53.26</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>59.99</td>
<td>56.46</td>
<td>52.93</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>64.18</td>
<td>60.18</td>
<td>56.20</td>
</tr>
<tr>
<td>Switzerland, 1998</td>
<td>72.32</td>
<td>67.58</td>
<td>62.86</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>58.56</td>
<td>55.04</td>
<td>51.54</td>
</tr>
</tbody>
</table>

7. ESTIMATES ON BENEFIT VISIBILITY OF TOTAL PUBLIC EXPENDITURE

In turn, tables 4, 5, and 6 present alternative and more recent estimates on benefit visibility of public expenditure and grants of Australia, Austria, Canada, Germany, Spain, Switzerland, and USA, obtained by applying index

\[ V_k^E = \sum_{j=1}^{q} x_{ji}^E y_{ji} \]

to the central, intermediate, and local fiscal sub-systems now in force in these countries.

Such values have been calculated mainly from information and primary data on public cash flows provided by the International Monetary Fund\(^3\).

As before, three hypotheses on minimum, plausible, and maximum shifting of expenditure benefit have been assumed to obtain a sensitivity analysis, giving rise to the corresponding series of maximum, \( V_m \), plausible, \( V_p \), and minimum, \( V_m \), values of weighted-visibility estimates of expenditure benefit for the policy intended - or legal - beneficiary of every type of good and service publicly provided. The initial approximate values for the fiscal visibility parameters \( v, p, m, q, i_M, i_p, i_m \) are the same previously used for the multiplicative indicators [Roig-Alonso, 1998, 2000, 2001].

As regards results, according to:
A) Table 4, presenting \( V_M, V_p, \) and \( V_m \) visibility estimates of public expenditure for the consolidated central government level, Germany has the most visible fiscal sub-system, and USA the least visible one, with plausible values ranging from 82.19 to 80.31, with only 1.88 points of difference. So differences among OECD countries compared are not significant at this level of government.
B) Table 5, presenting \( V_M, V_p, \) and \( V_m \) visibility estimates of public expenditure for the intermediate government level, Germany also has the most visible fiscal sub-system, and Australia the least visible one, with plausible values ranging from 80.68 to 78.97, with a difference of 1.71. Again differences among countries compared are insignificant at this level of government.
C) Table 6, presenting \( V_M, V_p, \) and \( V_m \) visibility estimates of public expenditure for the local government level, Germany always has the most visible fiscal sub-system, and Canada the least visible one, with plausible values ranging from 80.94 to 73.60, with a difference of 7.34 points. Now differences among countries compared are significant.
<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>$V_M$</th>
<th>$V_P$</th>
<th>$V_m$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>85.34</td>
<td>80.93</td>
<td>76.14</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>85.81</td>
<td>81.58</td>
<td>76.87</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>85.72</td>
<td>81.49</td>
<td>77.16</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>86.36</td>
<td>82.19</td>
<td>78.00</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>85.82</td>
<td>81.48</td>
<td>76.97</td>
</tr>
<tr>
<td>Switzerland, 1998</td>
<td>85.74</td>
<td>81.55</td>
<td>77.25</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>84.83</td>
<td>80.31</td>
<td>75.70</td>
</tr>
</tbody>
</table>

TABLE 5
Estimates of Public Expenditure Visibility in the European Union
Intermediate Government Level
(percentages)

<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>$V_M$</th>
<th>$V_p$</th>
<th>$V_m$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>83.61</td>
<td>78.97</td>
<td>72.30</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>84.45</td>
<td>79.83</td>
<td>74.11</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>84.97</td>
<td>80.28</td>
<td>74.48</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>85.27</td>
<td>80.68</td>
<td>75.44</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>84.24</td>
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</tr>
<tr>
<td>Switzerland, 1998</td>
<td>83.92</td>
<td>79.20</td>
<td>73.24</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>84.37</td>
<td>79.67</td>
<td>73.44</td>
</tr>
</tbody>
</table>

TABLE 6
Estimates of Public Expenditure Visibility in the European Union
Local Government

<table>
<thead>
<tr>
<th>OECD COUNTRIES / YEARS</th>
<th>VM</th>
<th>VP</th>
<th>VM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, 1998</td>
<td>83.87</td>
<td>78.97</td>
<td>74.06</td>
</tr>
<tr>
<td>Austria, 1994</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Canada, 1997</td>
<td>78.21</td>
<td>73.60</td>
<td>66.84</td>
</tr>
<tr>
<td>Germany, 1996</td>
<td>85.26</td>
<td>80.94</td>
<td>76.63</td>
</tr>
<tr>
<td>Spain, 1997</td>
<td>84.38</td>
<td>79.46</td>
<td>74.33</td>
</tr>
<tr>
<td>Switzerland, 1998</td>
<td>84.53</td>
<td>79.77</td>
<td>73.85</td>
</tr>
<tr>
<td>USA, 1999</td>
<td>83.70</td>
<td>78.83</td>
<td>71.79</td>
</tr>
</tbody>
</table>

- Insufficient available data.

8. CONCLUSIONS

The quality of public revenue and expenditure sub-systems and systems as policy instruments for efficiently allocating economic resources among private and public sectors and sub-sectors varies as a result of economic, political, and social factors.

The new and alternative indices of fiscal visibility previously redefined by combining significant parameters in an additive - instead a multiplicative - formula bring forward a more sensitive measurement methodology which can be used to make relevant quantified comparisons among member countries of the International Monetary Fund provided that detailed statistic figures on execution of public budgets as well as information about the nature of the different types of public administrations' revenue and expenditure programmes are available to researchers.

Estimates obtained from different assumptions on tax and expenditure shifting by using these new additive indices to measure the visibility of revenue burden and expenditure benefit of central, intermediate, and local fiscal sub-systems now in force in Australia, Austria, Canada, Germany, Spain, Switzerland, and USA, offer, in addition to previous remarks, the following observations:
First.- Burden visibility values for all these countries are higher than those previously estimated [Roig, 1998, 2000, 2001] in general. Such relatively higher values stem from the fact that by applying the new formula here presented a null parameter affecting any specific type of public revenue does not result necessarily in a 0 estimate for its visibility.
Second.- The concurrence of several factors (such as non-coerciveness, non-existence of specific requitals, lack of information on concepts and quantities, partial shifting of burden by tax-payers, intergovernmental grants, etc.) can explain why burden visibility values are lower than the optimal value 100.00.
Third.- Burden visibility values for the consolidated central government are higher than those estimated for the intermediate and local levels of same countries, mainly owing to significant grants received by sub-central public administrations from central public administration.
Fourth.- In general, benefit visibility values for all countries compared are also higher than those previously estimated [Roig, 2000, 2001]. Again such relatively higher values stem from the fact that with the new formula a null parameter affecting a specific type of public expenditure does not result necessarily in a 0 estimate for its visibility.
Fifth.- The concurrence of several factors (specially an insufficient information on
costs of goods and services publicly provided to users and consumers) can explain why benefit visibility values are lower than 100.00.

Sixth.- Contrary to burden visibility, differences of benefit visibility values are not important at the central and intermediate government levels, but remain significant at the local government.

Seventh.- Benefit visibility values are lower than those of burden visibility for all countries compared - except for Germany and Switzerland - at the consolidated central government.

Eighth.- In general benefit visibility values are higher than burden visibility values at intermediate and local levels for the same countries, suggesting a tendency to a public over-provision of goods and services at these government levels stemming from grants received by sub-central authorities from central public administrations.

Ninth.- Policy implications of these alternative estimates seem straightforward: as both present revenue and benefit visibility are not near to 100.00, allocation improvements could be obtained by implementing changes and reforms to raise values in general and by approaching these two types of budget visibility to such an optimal value.
FOOTNOTES

1By revenue visibility we mean visibility of direct burden of public revenue. Some types of public revenue (for instance, revenue from public property) do not involve any burden in the strict sense here reserved for this term. Symmetrically, by public expenditure visibility, visibility of direct benefit of public expenditure must be understood. Again, some types of public expenditure (for example, public purchases of private financial assets at market prices) might not carry any benefit with them.


REFERENCES