Fiscal Decentralization Indicators

This note contains the documentation on the database of Fiscal Decentralization Indicators that are mainly derived from IMF’s Government Finance Statistics (GFS). Included are some useful tables on availability and the types of indicators included as well as some guidance on how to use and how not to use the indicators as well as where to find the information.

Contents:
- How to access the data
- List of indicators and summary of coverage
- Countries represented in the database
- The strengths and weaknesses of the fiscal indicators
- The formulas used to calculate the indicators
- Sources

Examples of uses of the data:

**Sub-national Share of Expenditures in ECA /1**

- Albania 1998
- Belarus 1998
- Bulgaria 1998
- Croatia 1998
- Czech Republic 1998
- Former Yugoslavia 1990
- Hungary 1998
- Latvia 1998
- Lithuania 1998
- Poland 1998
- Romania 1997
- Russian Fed. 1994

**Vertical Imbalance in LAC /2**

- Bolivia 1998
- Brazil 1994
- Chile 1998
- Costa Rica 1995
- Dominican Rep. 1996
- Guatemala 1993
- Mexico 1997
- Nicaragua 1995
- Panama 1991
- Peru 1998

/2 Measured as transfers to sub-national governments as a share of sub-national government expenditures.

/1 Defense expenditures and interest payments have been subtracted, since these are rarely decentralized.
**How to access the database in SIMA**

1. Go to the Bank's Intranet;
2. Click on Data on the top right of the screen;
3. Click on SIMA Query on the left side menu under Data Home;
4. Click on the Query data button on the next screen;
5. Click on the Databases button;
6. Select World Bank databases from the left bucket;
7. Select “Fiscal Decentralization” from the right bucket;
8. Click on Connect;
9. Once you are connected to the database, just select country, series, and periods as usual in SIMA;
10. Click on Show Data to view result.

**List of Indicators and Coverage**

<table>
<thead>
<tr>
<th>Number of countries represented by region</th>
<th>Total</th>
<th>EAP</th>
<th>OECD etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Indicators:</strong></td>
<td></td>
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<tr>
<td>Sub-national expenditures (% of total expenditures)</td>
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<tr>
<td>Sub-national revenues (% of total revenues)</td>
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<tr>
<td>Vertical imbalance (%)</td>
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<td>Sub-national expenditures (% of GDP)</td>
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<td>Sub-national revenues (% of GDP)</td>
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<tr>
<td><strong>Composition of sub-national revenues and grants:</strong></td>
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<tr>
<td>Tax revenue (% of total sub-national revenues and grants)</td>
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<tr>
<td>Transfers from other levels of Government (% of total sub-national revenues and grants)</td>
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<tr>
<td>Residual</td>
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<tr>
<td><strong>Composition of sub-national expenditures:</strong></td>
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<tr>
<td>General public services (% of total sub-national expenditures)</td>
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<tr>
<td>Defense (% of total sub-national expenditures)</td>
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<td>Public order and safety (% of total sub-national expenditures)</td>
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<td>Education (% of total sub-national expenditures)</td>
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<td>Health (% of total sub-national expenditures)</td>
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<tr>
<td>Social security and welfare (% of total sub-national expenditures)</td>
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<tr>
<td>Housing and community amenities (% of total sub-national expenditures)</td>
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<tr>
<td>Recreational, cultural and religious affairs and services (% of total sub-national expenditures)</td>
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<tr>
<td>Fuel and energy (% of total sub-national expenditures)</td>
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<td>Agriculture, forestry, fishing, and hunting (% of total sub-national expenditures)</td>
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<tr>
<td>Mining and mineral resources, manufacturing, and construction (% of total sub-national expenditures)</td>
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<tr>
<td>Transportation and communication (% of total sub-national expenditures)</td>
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<tr>
<td>Other economic affairs and services (% of total sub-national expenditures)</td>
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<tr>
<td>Other expenditures (% of total sub-national expenditures)</td>
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</tr>
</tbody>
</table>
List of Countries Represented in the Database

List them by region

Decentralization is a complex and multifaceted concept that spans fiscal, political, and administrative dimensions. While measuring decentralization is equally complex, the fiscal flows to, from and among different levels of government can be used to assess some aspects of fiscal decentralization. The best source for cross-country analysis of fiscal flows is the International Monetary Fund’s *Government Finance Statistics* (GFS), which provides data with consistent definitions across countries and years. The purpose of the GFS is to provide data for monitoring, analyzing and evaluating the performance of the general government sectors, in a framework which is applicable across countries with different legal and institutional structures, but not particularly focused on decentralization issues. The following sections discuss some of the advantages and disadvantages of using the GFS to assess fiscal decentralization.

**Why Use GFS?**

Standardization of the fiscal variables is the most important strength of the GFS. This standardization does, however, inevitably lead to a loss of detail and data richness that must be kept in mind when using GFS data to assess decentralization. The GFS covers 149 countries on a yearly basis and is the only data source with such comprehensive coverage, although the number of countries with sub-national data is reduced by about two thirds. The GFS framework distinguishes between state or provincial and local governments, an important distinction in the decentralization context, and it has more than 50 variables for each government tier allowing fairly detailed analysis of fiscal flows.

**Expenditures**

The GFS framework provides a breakdown of expenditures by function and by economic type. The functional breakdown of expenditures is a useful tool in analyzing sectoral aspects of decentralization. Countries differ considerably in what types of expenditures are decentralized; for instance in Romania, sub-national governments spend more on health than on education, while in Latvia, sub-national governments spend 20 times more on education than on health. It must be noted that comparisons of functional expenditures across government tiers must be made with care, since the GFS data include intergovernmental transfers in addition to direct functional expenditures.

The breakdown by economic type distinguishes between current and capital expenditures but excludes interest payments. Defense and interest payments are rarely decentralized, and they can potentially distort measures of decentralization, and the GFS contains the necessary information to adjust for this problem. For instance, the United States, despite being a much larger country, has a lower sub-national share of expenditures than Switzerland. However, when defense and interest expenses are excluded from the sub-national-to-total ratio, the United States has a higher sub-national share of expenditures than Switzerland.

While various expenditure patterns can be assessed by the GFS data, less can be said about expenditure autonomy. Expenditures that are mandated by the central government appear as sub-national expenditures, even though subnational governments may have no autonomy in these spending decisions.

**Revenues**
GFS revenues can be broken down into tax and non-tax revenue, intergovernmental transfers and other grants. A typical question asked in a decentralization context is how much autonomy do sub-national governments have in raising revenue; for instance how much is collected through shared taxes versus piggybacked taxes versus locally determined taxes?. Shared taxes appear as sub-national revenue, although the sub-national government has no autonomy in determining the revenue base or rate, since the GFS reports revenues based on which level of government ultimately receives the revenues.

**Vertical Imbalance**

Vertical imbalance -- or the degree to which subnational governments rely on central government revenues to support their expenditures -- can be measured by intergovernmental transfers as a share of sub-national expenditures. This measure does not distinguish what proportion of transfers is conditional versus general purpose, and the GFS data do not provide this information.

**Coverage**

While the framework for the GFS is very comprehensive, available data are much less comprehensive when analyzing decentralization. For instance, only 46 countries reported expenditures at both the national and subnational level in 1996:

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central and Local</td>
<td>32</td>
</tr>
<tr>
<td>Central and Provincial</td>
<td>2</td>
</tr>
<tr>
<td>Central, Provincial and Local</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

*Redo this table based on updated information*

This limited coverage reflects a lack of reported data rather than few countries with local and provincial governments. This poor coverage can lead to sample selection bias. It is likely that the countries reporting subnational data have well developed subnational governments or may be focused on decentralizing fiscal responsibilities, and therefore the sample cannot be used as a representative group of all countries. A more serious problem is that even when countries report fiscal data, they do not always report data for all government tiers and the data thus present an incomplete picture of the sub-national government sector in those countries.

GFS generally do not report non-financial public enterprises and public financial institutions, which can lead to misinterpretations if some governments have devolved large parts of their activities to such entities while other governments have not.

**Aggregation**

Sub-national data in the GFS are aggregated across all governments within the same tier. Regional disparities can be important factors in designing fair and successful decentralization, but the GFS does not provide information for analyzing dispersion among sub-national regions. Thus, there is no basis for evaluating horizontal imbalances, i.e. the dispersion in sub-national governments’ ability to raise local revenues. With respect to vertical imbalance, it is possible that some provinces may have large vertical imbalances, while others are virtually autonomous, but the aggregation of fiscal data prohibits such assessment.

**Number of Tiers and Jurisdictions**
The number of government tiers and the number of jurisdictions within each tier is an important measure of the structure of subnational government, and has potential implications for service delivery. The GFS framework reflects three tiers, although data are rarely reported for all of these tiers, and, as noted above, they are not disaggregated by jurisdiction. The institutional tables in the GFS Yearbook provide information on the number of tiers and jurisdictions within each tier.
Formulas for Fiscal Decentralization Indicators

Legend:

The letter and number codes are consistent with those of GFS:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.I</td>
<td>Total revenues and grants</td>
</tr>
<tr>
<td>A.II</td>
<td>Total revenue</td>
</tr>
<tr>
<td>A.IV</td>
<td>Tax revenue</td>
</tr>
<tr>
<td>A.18</td>
<td>Transfers from other levels of national government</td>
</tr>
<tr>
<td>B.I</td>
<td>Total expenditures (=C.II)</td>
</tr>
<tr>
<td>B.1</td>
<td>General public services</td>
</tr>
<tr>
<td>B.2</td>
<td>Defense</td>
</tr>
<tr>
<td>B.3</td>
<td>Public order and safety</td>
</tr>
<tr>
<td>B.4</td>
<td>Education</td>
</tr>
<tr>
<td>B.5</td>
<td>Health</td>
</tr>
<tr>
<td>B.6</td>
<td>Social security and welfare</td>
</tr>
<tr>
<td>B.7</td>
<td>Housing and community amenities</td>
</tr>
<tr>
<td>B.8</td>
<td>Recreational, cultural, and religious affairs and services</td>
</tr>
<tr>
<td>B.9</td>
<td>Fuel and energy</td>
</tr>
<tr>
<td>B.10</td>
<td>Agriculture, forestry, fishing, and hunting</td>
</tr>
<tr>
<td>B.11</td>
<td>Mining and mineral resources, manufacturing, and construction</td>
</tr>
<tr>
<td>B.12</td>
<td>Transportation and communication</td>
</tr>
<tr>
<td>B.13</td>
<td>Other economic affairs and services</td>
</tr>
<tr>
<td>B.14</td>
<td>Other expenditures</td>
</tr>
<tr>
<td>C.II</td>
<td>Total expenditures (=B.I)</td>
</tr>
<tr>
<td>C.3.2</td>
<td>Current transfers to other levels of national government</td>
</tr>
<tr>
<td>C.7.1.1</td>
<td>Capital transfers to other levels of national government</td>
</tr>
</tbody>
</table>

The squared brackets indicate the level of government:

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cen:</td>
<td>Central Government</td>
</tr>
<tr>
<td>Pro:</td>
<td>State or Provincial Government</td>
</tr>
<tr>
<td>Loc:</td>
<td>Local Government</td>
</tr>
</tbody>
</table>

Main indicators:

Sub-national expenditures (% of total expenditures)

\[
\frac{\text{C.II}[\text{Loc}] - \text{C.3.2}[\text{Loc}] - \text{C.7.1.1}[\text{Loc}]}{\text{C.II}[\text{Cen}] - \text{C.3.2}[\text{Cen}] - \text{C.7.1.1}[\text{Cen}] + \text{C.II}[\text{Loc}] - \text{C.3.2}[\text{Loc}] - \text{C.7.1.1}[\text{Loc}] + \text{C.II}[\text{Pro}] - \text{C.3.2}[\text{Pro}] - \text{C.7.1.1}[\text{Pro}]} \times 100
\]
Sub-national revenues (% of total revenues)
\[
\]

Vertical Imbalance (%)
\[
\]

Sub-national Expenditures (% of GDP)
\[
\]

Sub-national Revenues (% of GDP)
\[
\frac{A.II[Loc] + A.II[Pro]}{GDP}
\]

**Composition of sub-national revenues and grants**

Tax revenue (% of total sub-national revenues and grants)
\[
\]

Transfers from other levels of Government (% of total sub-national revenues and grants)
\[
\]

**Composition of sub-national expenditures**

General public services (% of total sub-national expenditures)
\[
\]

Defense (% of total sub-national expenditures)
\[
\]

Public order and safety (% of total sub-national expenditures)
\[
\]

Education (% of total sub-national expenditures)
\[
\]

Health (% of total sub-national expenditures)
\[
\]

Social security and welfare (% of total sub-national expenditures)
\[
\]
Housing and community amenities (% of total sub-national expenditures)
\[ B.7[Loc] + B.7[Pro] \]
\[ B.I[Loc] + B.I[Pro] \]

Recreational, cultural and religious affairs and services (% of total sub-national expenditures)
\[ B.8[Loc] + B.8[Pro] \]
\[ B.I[Loc] + B.I[Pro] \]

Fuel and energy (% of total sub-national expenditures)
\[ B.9[Loc] + B.9[Pro] \]
\[ B.I[Loc] + B.I[Pro] \]

Agriculture, forestry, fishing, and hunting (% of total sub-national expenditures)
\[ B.10[Loc] + B.10[Pro] \]
\[ B.I[Loc] + B.I[Pro] \]

Mining and mineral resources, manufacturing, and construction (% of total sub-national expenditures)
\[ B.I[Loc] + B.I[Pro] \]

Transportation and communication (% of total sub-national expenditures)
\[ B.I[Loc] + B.I[Pro] \]

Other economic affairs and services (% of total sub-national expenditures)
\[ B.I[Loc] + B.I[Pro] \]

Other expenditures (% of total sub-national expenditures)
\[ B.14[Loc] + B.14[Pro] \]
\[ B.I[Loc] + B.I[Pro] \]

**Sources**

The data are from the Government Finance Statistics, International Monetary Fund.