Supplementary Appendix for “Gaming Democracy”

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SECTION ONE: GENERAL CONSIDERATIONS AND RULES

We follow five rules in constructing our data series. First, we employ the most common, high-quality secondary source data series with the greatest coverage across both countries and time. Second, when needed, we use the primary sources that provide the most fine-grained data and are the most transparent. Third, we minimize the number of sources used to construct any data series, ideally employing only one source per series, on the reasonable assumption that the methods used to measure the variable in question are likely to be constant over time within a single source. Fourth, when we had to use more than one source for any country series, we ascertain that the values in the two data series match for overlapping years; this leads us to infer that both sources are employing similar methods or drawing on the same primary source. Fifth, we use the most updated data available from each source, thus making it less likely that we will record a preliminary estimate.
SECTION TWO: CONSTRUCTING REVOLUTION, DEMOCRACIES IN THE REGION AND STRUCTURAL INEQUALITY

1. Revolution

To ensure robustness, we employ two different measures of revolution. Our main measure is from Banks (2005), where he defines a revolution as “any attempted or successful forced change in the top governmental elite or any armed rebellion whose aim is independence from the central government.”

The second measure is from Goldstone (1998). His definition of revolutions is as follows: “irregular procedures aimed at forcing political change within a society…and lasting effects on the political system of the society in which they occurred.”

2. Number of Democracies in a geographic/cultural region

In Table 1, Column 5 we instrument Democracy born in Revolution with log(Number of Democracies in the Region) t-1. The logic is as follows: a democracy born in the wake of popular mobilization is more likely to emerge and survive in a friendly environment where there are a greater number of democracies (Gleditsch and Ward 2006; Haber and Menaldo 2011). In essence, any attempt to overthrow a fledgling mass democracy in a region with a greater frequency of democratic governments is politically and diplomatically costly. This reduces the odds that such a democracy will be displaced by a rightwing coup. Indeed, once democratization had become widespread across Latin America after the Cold War, coups against elected leftist leaders became practically obsolete. Therefore, an increase in the number of democracies in a revolutionary democracy’s neighborhood should boost its level of social spending through only one channel: by making it more likely for the revolutionary democracy to survive.

The number of democracies in the region is logged (after adding 1) and lagged by one period. Logging this variable addresses the concern that the impact of an additional democracy joining a well-established community of neighboring democracies has decreasing marginal effectiveness.

In order to construct this variable we need to undertake three steps. The first step is to divide the world into geographical/cultural regions. The second step is to identify what country years in the dataset are consolidated/coherent democracies. The third step is to compute the total number of consolidated/coherent democracies in each region. The fourth step is to assign this count of democracies to each country year on a region-by-region basis.

We describe the first and second step below.

Dividing the World into Regions

As a first step we divide the world into regions. We follow Hadenius & Teorell (2005), “Assessing Alternative Indices of Democracy, C&M Working Papers 6, IPSA” (available at: http://www.concepts-methods.org/working_papers/20050812_16_PC%20Democracy%20Hadenius%20Teorell.pdf) and divide the world into ten politico-geographic regions. It is based on both geographical proximity and demarcation by area specialists who have contributed to a regional understanding of
democratization. The ten regions are: 1) Eastern Europe and post Soviet Union (including Central Asia); 2) Latin America (including Cuba, Haiti & Dominican Republic); 3) North Africa & Middle East (including Israel, Turkey and Cyprus); 4) Sub-saharan Africa; 5) Western Europe & North America (including Australia & New Zealand); 6) East Asia (Including Japan & Mongolia); 7) Southeast Asia; 8) South Asia; 9) The Pacific (excluding Australia & New Zealand); 10) The Caribbean.

We make some minor adjustments to the Hadenius and Teorell classifications, as follows. We allocate Haiti and Suriname to the Caribbean. We do so on the following basis: neither is Spanish speaking. Moreover, Guyana is in this category, so it makes little sense that neighboring Suriname is not. We also allocate Mongolia to Eastern Europe and the Post Soviet Union because it was in the Soviet Union’s sphere of influence during the Cold War. Historically it also has more in common with Central Asia (which is in Hadenius and Teorell’s category for Eastern Europe and the Post-Soviet Union) than it does with the Pacific or Southeast Asia. We allocate Cyprus and Israel to Western Europe, because the populations of both are of European origin and their political institutions have been clearly shaped by their orientation toward Europe.

**Identifying Country-Years as Democratic**

We need to identify each country-year in the panel that is a consolidated democracy in order to count the total number of democracies in each region. We follow Kristian Gleditsch and Michael Ward (2006), "Diffusion and the International Context of Democratization," *International Organization* 60 (4): 911-933, who code coherent democracies as those that have a combined Polity Score of 7 out of -10 to +10 (85 on a scale that is normalized to run from 0 to 100).

**3. Structural Inequality**

We follow Easterly (2007) and control for persistent structural inequality as the log(\%Land Suitable for Wheat to \%Land Suitable for Sugar Cane). Because there are some countries where the land suitable for either/both of these crops is zero, we compute the ratio as: log((1+\% land suitable for wheat)/(1+\% land suitable for sugar)). Unlike Easterly, we use the arable land suitable for these crops within 100 miles of the country’s largest city to address the possibility that country averages mask a considerable degree of heterogeneity and may be biased by areas that are not populated. In order to calculate the arable land suitable for each crop, we use data from the Food and Agriculture Organization (FAO) GAEZ (2002) dataset. The FAO computes, based on measures of soil characteristics, such as moisture, temperature, chemical composition, depth, texture, and organic matter, a suitability index for a large number of crops. That suitability index (SI) is scaled from 0 (completely unsuitable for that crop) to 100 (the highest possible yield for that crop under rainfed conditions). This is done crop by crop, by parcel, on a global scale. Each of these parcels roughly corresponds to 36 mile by 36 mile squares. We then used the parcel SIs to compute, via triangulation, the average SI for each crop 100 miles in radius from the largest city.

SECTION TWO: CONSTRUCTING SOCIAL SPENDING AND WELFARE AND SOCIAL INSURANCE SPENDING DATA

This section contains information on two variables regarding government expenditure. The first is Total Social Spending. The second is Welfare and Social Insurance Spending. To construct these variables we avail several sources. They are:

A. The International Monetary Fund (IMF) Government Finance Statistics Yearbook (GFSY), hardcover edition, various years.

Total Social Spending is government spending on education, health, and housing.

Government Spending on Welfare and Social Insurance Spending is more nuanced than social spending. This is the definition used by the IMF:

“through the provision of social benefits, which are payments in cash or in kind to protect the entire population or specific segments of it against certain social risks. A social risk is an event or circumstance that may adversely affect the welfare of the households concerned either by imposing additional demands on their resources or by reducing their incomes. Examples of social benefits are the provision of medical services, unemployment compensation, and social security pensions” (IMF Government Finance Statistics Yearbook Manual 2001, 9).

Using information from the IMF Finance Statistics Yearbook Manual (2001), we include:

• Medical, dental, and other treatments and hospital, convalescent, and long-term care as a result of sickness, injuries, maternity needs, chronic invalidity, or old age. These social benefits are usually provided in kind directly or by reimbursing households or individuals.

• Support of spouses, children, elderly relatives, invalids, and other dependents. These social benefits are usually paid in cash in the form of regular dependents’ or family allowances.

• Compensation for a reduction in income as a result of not being able to work, either full or part time. These social benefits are usually paid regularly in cash for the duration of the condition or for a maximum period. In some instances, a lump sum may be provided additionally or instead of the regular payment.

• Included in this category are retirement benefits, unemployment compensation, and income replacement because of sickness, injury, the birth of a child, or other forced reductions in work.
• Compensation for a reduction in income because of the death of the main income earner. These social benefits are usually paid in cash, often in the form of regular allowances.

• Housing benefits in cash and housing services, which may be provided free, at prices that are not economically significant, or by reimbursing expenditures made by households.

• Allowances to cover education expenses or, occasionally, education services in kind.

**Coding Rules**

We harmonized across different accounting standards by using the following template:

1. If there is overlap between cash and accrual reporting, preference is given to cash reporting.
2. If there is overlap between Consolidated Budget and Central Budgetary reporting, preference is given to the Consolidated Budget, unless the Central Budgetary offers more coverage overall or more continuous coverage than the Consolidated Budget does.
3. However, in order to create consistency across the variables and years and to avoid drastic changes in ratios and the summation of variables, in some cases the composite variable has been changed. For example, if Total Expenditures in 1993 was reported in accrual only and the Social Protection variable was reported in both cash and accrual, Social Protection will use accrual that year rather than cash. The same is true for budgets.

**Analytic Comparability**

This control variable was created in order to take into account additional data and information provided by the IMF. In any given year, the IMF colors data points that “may not be analytically comparable” blue. We have taken this information into account by coding this data points as 1. If they are not flagged by the IMF, they are coded as 0 and assumed to be analytically comparable (coded by the authors as analytic_comp3, analytic_comp4, etc). This control variable has been created for every composite variable in the data set. If the construction of the composite variable(s) change, analytic comparability must be adjusted and rechecked using the original data for the country. Although many countries have breaks in analytic comparability across all budgets in some years, occasionally it is only a single budget. Therefore, it is not to be assumed that the analytic comparability applies to both Budgetary Central data and Consolidated budget data, but only to the budget that was used to create the composite variable.

**Analytic Comparability Composite Control** (coded 0 or 1):

Two control variable was create specific for the composite variables totaling social spending.

analytic_comp_hhe: If one or more of the health, housing or education variables have a 1 for their analytic comparability control for any given year, they are coded as one. If all variables are zero, they are coded as zero.

analytic_comp_hhep: If one or more of the health, housing, education or social protection variables have a 1 for any given year, they are coded as one. If all variables are zero, they are coded as zero. Budget Composites (coded 0, 1 or 2):

**Budgets**

This data set uses two budgets from the IMF GFS: the Consolidated Central Government budget (coded by the IMF as CG) and the Central Budgetary budget (coded by the IMF as BA). Two budgets were used rather than one because some countries only report to one
budget or the other and this helps mitigate some (but not all) of the missingness problem in the IMF GFS data. Potential issues from using multiple budgets is mitigated by using a control variable that is coded as 1 if the data is the Central Budgetary budget and 0 if the data is from the Consolidated Budget (coded by the authors as budget3, budget4, etc). This control variable has been created for every composite variable in the data set.

**Budget Composite Control (coded 0, 1 or 2):**
Two budget control variables were also created for the social spending composite variables.
budget_comp_hhe: If the sum of health, housing and education's budget control is zero, they are coded as zero. This means that all the data for these three variables has been pulled from the Consolidated Budget. If the sum of health, housing and education's budget control is 3, they are coded as 1. This means that all the data for these three variables has been pulled from the Budgetary Central budget. If the sum of health, housing and education's budget control is 1 or 2, they are coded as 2. This means that the data is mixed and pulled from both the Consolidated budget and the Budgetary Central budget.
budget_comp_hhep: If the sum of health, housing, education and social protection's budget control is zero, they are coded as zero. This means that all the data for these four variables has been pulled from the Consolidated Budget. If the sum of health, housing, education and social protection's budget control is 4, they are coded as 1. This means that all the data for these three variables has been pulled from the Budgetary Central budget. If the sum of health, housing, education and social protection's budget control is 2 or 3, they are coded as 2. This means that the data is mixed and pulled from both the Consolidated budget and the Budgetary Central budget.

**Cash or Accrual Budget Reporting**

**Accrual**
In the revised GFS system, flows are recorded on an accrual basis, which means that flows are recorded at the time economic value is created, transformed, exchanged, transferred, or extinguished. In the 1986 GFS Manual, transactions are recorded when cash is received or paid. Using the accrual basis also means that nonmonetary transactions are fully integrated in the revised GFS system. In the 1986 GFS Manual only selected nonmonetary transactions. (GFSM 2001, pg 4).

Potential issues from using cash or accrual reporting data is mitigated by using a control variable that is coded as 1 if the data is Cash and 0 if the data is Accrual (coded by the authors as source3, source4, etc). This control variable has been created for every composite variable in the data set.

**Source Composites (coded 0, 1 or 2):**
Two source control variables were also created for the social spending composite variables.
source_comp_hhe: If the sum of health, housing and education's source control is zero, they are coded as zero. This means that all the data for these three variables have been reported as accrual. If the sum of health, housing and education's source control is 3, they are coded as 2. This means that all the data for these three variables have been reported as cash. If the sum of health, housing and education's source control is 1 or 2, they are coded as 1. This means that the data is mixed and was reported as both cash and accrual.
source_comp_hhep: If the sum of health, housing, education and social protection's budget control is zero, they are coded as zero. This means that all the data for these four variables have been reported as accrual. If the sum of health, housing education and social protection's source control is 4, they are coded as 2. This means that all the data for these three variables have been reported as cash. If the sum of health, housing, education and social protection's budget control is 1 or 2, they are coded as 1. This means that the data is mixed and was reported as both cash and accrual.

**IMF Data from Multiple Formats**
The IMF provides GFS data in four formats: an annual statistical yearbook for the years 1976-present, two CDs (one historic data 1972-1989 and one recent data 1990 – present), online data only for recent years 1990-present and microfilm. In order to address the missingness issue in this data, we first downloaded all data available online for the 1990-present period. Then we added in the historic data for 1972-1989 from the CD. After this was done, we turned to the statistical yearbooks. For every country, the online database and CDs are the primary sources. Additional sources used to fill in missingness are cited by country below.

**Countries With Data From Statistical Yearbooks**
For more complete information about data added from the yearbooks, see the country specific notes below.

**The Euro Problem**
Both the World Bank and the IMF transforms some of its historical data into Euros. This presents problems when creating ratios and the numerator and denominator differ in reporting styles. In the case of this dataset, the IMF Outlays are reported in national currencies through the date that the country went on the Euro. However, the World Bank retroactively converts its time series GDP LCU data into Euros by multiplying the numbers by a pegged exchange rate set in 1999 (unless otherwise noted).
Countries for which corrections were made as of August 2011 include: Austria, Belgium, Cyprus, Finland, French, Germany, Greek, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovakia, Slovenia, Spain.
Directly from the World Bank’s website:
“We are using simple multipliers to convert the national currencies of EMU members to euros. The following are the irrevocable euro conversion rates as adopted by the EU Council on January 1, 1999.

Please note that the historical data before 1999 are not actual euros and are not comparable or suitable for aggregation across countries. This methodology is simply a way to create a
consistent euro time series for each country and allows for easy conversion back to the original national currency. The pre-1999 series that are created are, in effect, "Belgian euros," "German euros," "French euros," etc., and thus are unique and applicable only to each individual country. The data from 1999 onwards, however, are actual euros and are comparable across countries.”


The exchange rates that were used to convert the Euros back into national currencies (for GDP LCU only) were taken from the European Central Bank and are used by both the IMF and World Bank in their data. They pegged exchange rates are as follows:

1 euro = 13.7603 Austrian schillings
= 40.3399 Belgian francs
= 0.585274 Cyprus pound (established on January 1, 2008)
= 1.95583 Deutsche mark
= 5.94573 Finnish markkaa
= 6.55957 French francs
= 340.750 Greek drachma (established on January 1, 2001)
= 0.787564 Irish pound
= 1.936.27 Italian lire
= 40.3399 Luxembourg francs
= 0.42930 Maltese lira (established on January 1, 2008)
= 2.20371 Netherlands guilders
= 200.482 Portuguese escudos
= 30.1260 Slovak koruna (established on January 1, 2009)
= 239.640 Slovenian tolers (established on January 1, 2007)
= 166.386 Spanish pesetas

For more complete information about converted GDP for each country, see the country specific notes below.

**Other Currency and Hyperinflation Problems**

Azerbaijan changed national currencies in 2005, converting the manat (which replaced Soviet rubles) 5000 to 1. Therefore, GDP LCU was multiplied by 5000. This makes the ratio within a plausible range (between 0 and 1).


Democratic Republic of Congo has had a series of currency changes since independence due to hyperinflation. So far the only source that has noted the possible sources: [http://en.wikipedia.org/wiki/Congolese_franc](http://en.wikipedia.org/wiki/Congolese_franc)

**Country Specific Notes and Sources**

**Afghanistan**

The composite variables were constructed using Central Budgetary data available for 2003-2009.

Afghanistan is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. It seems likely that Afghanistan did not start reporting budgetary data to the IMF until after the American invasion in 2001 and the creation of the new government and constitution in 2003/4.
No data is available before 2003 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Albania
The composite variables were constructed using Central Budgetary data for 1995-1998 and 2002-2004. Albania is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. This is typical of former Soviet and Eastern bloc countries.
No data is available before 1995 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Algeria
No data is available before 1994 or after 1999 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Argentina
No data is available after 2005 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Armenia
The Total Expenditure composite variable was constructed using Central Budgetary data for 2003-2009. Armenia did not report disaggregated data for any other Outlay in the GFS budget. Armenia is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. Data will not be available prior to 1991 for Armenia, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
No data is available before 2003 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Australia
The Total Expenditure composite variable was constructed using Consolidated budget data for 1990-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.
Sources:

Austria
The Total Expenditure composite variable was constructed using Central Budgetary data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.
Sources:

Azerbaijan
All composite variables were constructed using Consolidated budget data for 1994-1999. The Total Expenditure composite variable also includes a data point for 2008. Data will not be available prior to 1991 for Azerbaijan, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
Sources:

Bahamas
All composite variable was constructed using Central Budgetary data for 1973-1986 and 1988-2009.
No data is available for 1987 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Bahrain
The Total Expenditure composite variable was constructed using Central Budgetary data for 1974-2009.
The Defense and Health composite variables were constructed using the Consolidated budget data for 1974-1989 and the Central Budgetary data for 1990-2009. The Housing, Education and Social Protection composite variables were constructed using the Consolidated budget data for 1974-2005 and the Central Budgetary data for 2006-2009. Bahrain became independent from the UK in 1971, which may explain why 1972 and 1973 is missing.

No data is available before 1974 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Bangladesh

No data is available between 1986-2000 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Barbados

No data is available for the 1990-2002 period from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Belarus
The Total Expenditure composite variable was constructed using Consolidated budget data for 1992-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Central Budgetary data for 1992-2009.
Data will not be available prior to 1991 for Belarus, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
Sources:

Belgium
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
Data is missing for all other composites 1990-1994.
Belgium is listed in the 1995 GFS yearbook, however no data is provided for the 1990-1994 period.
Special notes / issues:
In 2004 and 2005 Belgium reports negative values for spending on Housing (acc_cb_housing and acc_housing).
Sources:

Belize
Belize is not listed in the 1981 GFS Yearbook, but is listed in the 1986, 1990 and 1995 yearbooks, however no data is provided for the 1986-1987 or 1998-2009 periods.
Sources:

Benin
The Defense, Health, Housing, Education and Social Protection composite variable was constructed using Consolidated budget data for 1977-1979.
Benin does not report Outlays in the 1981 GFS Statistical Yearbook. Outlays are reported in the 1986 GFS Statistical Yearbook but only for the same years available in other sources.
No data is available for these variables from 1972-1978 and 1980-present from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Bhutan
The Total Expenditure composite variable was constructed using Consolidated budget data for 1990-2009.
Bhutan is not listed in the 1981 or 1986 GFS Statistical Yearbooks.
No data is available before 1990 for Total Expenditures or before 1982 for any variable from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Bolivia
The Total Expenditure composite variable was constructed using Central Budgetary data for 1986-2007.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1986-2007.
To account for missingness during the period between 1972-1985 data from the Central Budgetary budget for 1972-1979 provided in the GFS Yearbook for 1981. It is reported in millions of pesos rather units. The Consolidated budget data for 1980-1984 was provided in the GFS Yearbook for 1986 and was used to construct the composite variables for those years. It is reported in billions of pesos rather than units.
Bolivia is listed in the 1989, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available after 2007 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Bosnia and Herzegovina
The Total Expenditure composite variable was constructed using Consolidated budget data for 2004-2009. 

No data is available for any other variable for any years from any budget or on any format (cd, yearbook, microfilm, online). 

No Total Expenditure data is available before 2004 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Botswana
The Total Expenditure, Defense, Housing, Health, Education and Social Protection composite variables were constructed using Central Budgetary data for 1972-1996.

No data is available after 1996 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Brazil
The Total Expenditure composite variables were constructed using Central Budgetary data for 1980-1989 and Consolidated budget data for 1990-1994, 1997-1998 and 2006-2008. To account for missingness during the period between 1972-1979 data from the Consolidated budget provided in the GFS Yearbook for 1981 was used to construct the composite variables. It is reported in billions of cruzeiros rather than units.

Data is still missing for the period between 1995-1996 and 2000-2005.

No data is available after 2008 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Bulgaria
The Total Expenditure composite variable was constructed using Central Budgetary data for 1988-2009. The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1988-2009. Bulgaria is not listed in the GFS 1981 or 1986. This is typical of former Soviet and Eastern bloc countries.

Special notes/issues:
In 1990 Bulgaria reported negative values for spending on social protection to the Central Budgetary budget (cash_cb_protect), but not to the Consolidated Budget (cash_protect).
Because we used the Consolidated budget data to construct this composite variable, this is not an issue.

No data is available before 1988 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Burkina Faso**

The source for the data on Social Spending from 1990 to 93 is Development Network Growth Database.
The source for the data on Social Protection from 1991 is Development Network Growth Database.
The composite variables were constructed using

No data is available after

Special notes/issues:
Although Burkina Faso appears to have reported data to the IMF during the 1990- period and does have Outlay data in the GFS Statistical Yearbook for 1995, the country is not listed in the country list to be chosen from in the online data base under the Consolidated budget but is listed under the Budgetary Central.

Sources:

**Burundi**

Burundi is listed in the 1981 and 1986 GFS Statistical Yearbooks but no Outlays data is provided for the period between 1982-1990.

No data is available after 1999 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Cambodia**

The Total Expenditure composite variable was constructed using Consolidated budget data for 2002-2009. Cambodia did not report disaggregated data for any other Outlay in the GFS budget.
No data is available before 2002 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Cameroon**
Cameroon is listed in the 1981 and 1986 GFS Statistical Yearbooks, however they do not provide pre-1975 data. Data is still missing for 1996, 2000 – present.
*No data is available before 1975 for Total Expenditures and no data is available before 1976 for any other variable from any budget or on any format (cd, yearbook, microfilm, online).*

Sources:

**Canada**
The Total Expenditure composite variable was constructed using Budgetary Central data for 1973-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1973-2008.
*No data is available before 1973 for any variable or after 2008 for any variable but Total Expenditures from any budget or on any format (cd, yearbook, microfilm, online).*

Sources:

**Cape Verde**
The Total Expenditure composite variable was constructed using Consolidated budget data from 2005-2008.
The Defense, Housing, Health, Education and Social Protection composite variables were created using Budgetary Central data from 2008-2009.
*No data is available before 2005 for Total Expenditures or before 2008 for any other variable from any budget or on any format (cd, yearbook, microfilm, online).*

Sources:

**Cayman Islands**
The composite variables were constructed using Budgetary Central data for 1983-1989. 1990-1991 data was pulled from the 1995 GFS Statistical Yearbook and is listed in units (originally millions of dollars).
Cayman Islands is not listed in the 1981 GFS Statistical Yearbook, it is listed in the 1986 GFS Statistical Yearbook but Outlays data before 1983 is not provided. Data is still missing for 1992-present.
Although the Cayman Islands appears to have reported data to the IMF during the 1990-period and does have Outlay data in the GFS Statistical Yearbook for 1995, the country is not listed in the country list to be chosen from in the online data base under the Consolidated budget or the Budgetary Central budget.
Sources:

Central African Republic
The Total Expenditure composite variables was constructed using Central Budgetary data for 1981.
The Defense, Housing, Health, Education and Social Protection composite variables were created using Consolidated budget data for 1981.
Central Africa Republic is not listed in the 1986, 1990 or 1995 GFS Statistical Yearbooks. However, it is listed in the 1981 GFS Statistical Yearbook, but only includes information about the units of government and Ministry of Finance data sources.
No data is available before or after 1981 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Chad
The composite variables were constructed using Consolidated budget data for 1972-1976. This data was pulled from the 1986 GFS Statistical Yearbook and is listed in units (originally millions of Francs).
Chad is listed in the 1995 GFS Statistical Yearbook, but does not provide date for any Outlays (indeed the entire section “B” is absent) (pg 192). Data is missing for 1977-1985 for all variables but Total Expenditure and 1990-present for all variables.
Although Chad appears to have reported Consolidated budget data to the IMF during 1972-1976 for Outlays in the GFS Statistical Yearbook for 1981 and 1986, the historic CD browser only provides data for Total Expenditures in the Budgetary Central budget but not Consolidated and no data for any other Outlays.
No data is available for any variables except Total Expenditures after 1976 and no variables after 1990 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Chile
The composite variables were constructed using Consolidated budget data for 1972-2009. For Housing, Health, Education and Social Protection the 2009 data point is from the Budgetary Central budget. There is no missing data.

Sources:

China
The composite variables were constructed using Budgetary Central data from 1990-2008. There is no missing data during this period.
China is not listed in the 1981, 1986 or 1990 GFS Statistical Yearbooks.

No data is available before 1990 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

China, Hong Kong
The composite variables were constructed using Consolidated budget data for 2002-2009. Hong Kong is not listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks. Before 1999, Hong Kong’s data would have been reported with the United Kingdom.

No data is available for any variable before 2002 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

China, Macau
The composite variables were constructed using Budgetary Central data for 1996-2009.

No data is available before 1996 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Colombia
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection composite variable were constructed using Consolidated budget data for 1982-1986 and Budgetary Central data for 1990-1997.
Colombia is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but does not provide any Outlay data for the missing years.

No data is available after 1997 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Comoros
The Total Expenditure composite variable was constructed using Consolidated budget data for 1982-1987.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1984 and 1987.
Comoros is listed in the 1986 and 1990 GFS Statistical Yearbook but does not provide any additional Outlays data. Comoros is not listed in the 1981 or 1995 GFS Statistical Yearbook.
No data is available after 1987 from any budget or in any format (cd, yearbook, microfilm, online).
Sources:

Congo, Democratic Republic of
The source for the data on Social Spending from 1972 to 73 is Development Network Growth Database.
The source for the data on Social Protection from 1972 to 73 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-1982 and 1988-2002.
No data is available between 1983-1992 or after 2002 for any variable, no data is available after 1997 for any variable but Total Expenditure.
Sources:

Congo
The source for the data on Social Spending from 1981 to 83 is Development Network Growth Database.
The source for the data on Social Protection from 1981 to 83 is Development Network Growth Database.
The Total Expenditure composite variables were constructed using Consolidated budget data for 1980-1983.
The Housing and Social Protection composite variables were constructed using Consolidated budget data for 1981-1983.
The Education composite variable was constructed using Consolidated budget data for 1982-1983.
Congo is listed in the 1981 and 1986 GFS Statistical Yearbooks but does not provide any additional Outlays data. Congo is not listed in the 1990 or 1995 GFS Statistical Yearbooks.
No data is available before 1980 or after 1983 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Costa Rica
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-1991 and Budgetary Central data for 1994-2009. The data for 1992 and 1993 was pulled from the 1995 GFS Statistical Yearbook. This data was reported in billions of colones, but was adjusted by adding zeros and so remains in units.
No data is available after 2009 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Cote D'Ivoire
The source for the data on Social Spending from 1980 to 90 is Development Network Growth Database.
The source for the data on Social Protection from 1980 to 90 is Development Network Growth Database.
The Defense, Housing, Health, Education and Social Protection composite variable were constructed using Consolidated budget data for 1980, 1984-1985 and Budgetary Central budget data for 2009. The 1980, 1984-1985 data was pulled from the 1990 GFS Statistical Yearbook. No additional data was reported. The data was reported in millions of Franches, but was adjusted by adding zeros and so remains in units.
The Ivory Coast is not listed in the 1981 GFS Statistical Yearbook. It is listed in the 1986, 1990 and 1995 GFS Statistical Yearbooks but does not provide any additional Outlays data.
No additional data is available from any budget or on any format (cd, yearbook, microfilm, online).

Sources:
**Croatia**
The composite variables were constructed using Budgetary Central data for 1991-2009. Croatia is not listed in the 1981 or 1986 GFS yearbooks. Data will not be available prior to 1991 for Croatia, as it was part of the former Yugoslavia during that period. This is typical of former Soviet and Eastern bloc countries. *No data is available before 1991 from any budget or on any format (cd, yearbook, microfilm, online).*

*Sources:*

**Cuba**
Cuba is not listed in any IMF GFS sources, for any years or budgets (cd, yearbook, microfilm, online).

**Cyprus**
The source for the data on Social Spending from 1972 to 74 is Development Network Growth Database.
The source for the data on Social Protection from 1972 to 74 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection variables were constructed using Consolidate budget data for 1972-1989 and Budgetary Central data for 1990-2009. There is no missing data.

*Sources:*

**Czechoslovakia**
The composite variables were constructed using Consolidated budget data for 1989. This is the only year that Czechoslovakia reported data to the IMF. Czechoslovakia dissolved and any data reported after 1993 will be found separately under Czech Republic and Slovakia. Czechoslovakia is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. *No data is available before or after 1989 from any budget or on any format (cd, yearbook, microfilm, online).*

*Sources:*

**Czech Republic**
The composite variables were constructed using Budgetary Central data for 1993-2009. Data will not be available prior to 1993 for Czech Republic, as it was part of the Czechoslovakia during that period. *No data is available before 1993 from any budget or on any format (cd, yearbook, microfilm, online).*

*Sources:*


**Denmark**
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection variables were constructed using Consolidated budget data for 1972-2008 and Budgetary Central data for 2009. There is no missing data.

*No data is available after 2009 from any budget or on any format (cd, yearbook, microfilm, online).*

**Sources:**

**Djibouti**
The Total Expenditure composite variable was constructed using Consolidated budget data for 1979-1986 and 1988.
The Defense, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1979 and 1981. This data was pulled from the 1981 and 1990 GFS Statistical Yearbooks. No additional Outlays data is provided. Djibouti is not listed in the 1995 GFS Statistical Yearbook.

*No data is available before 1979 or after 1988 for any variable from any budget or on any format (cd, yearbook, microfilm, online). No data is available for any variable except Total Expenditure for years other than 1979 and 1981.*

**Sources:**

**Dominica**
The source for the data on Social Spending from 1976 is Development Network Growth Database.
The source for the data on Social Protection from 1976 is Development Network Growth Database.
The composite variables were constructed using Consolidated budget data for 1976-1979. Dominica is not listed in the 1990 or 1995 GFS Statistical Yearbooks. Dominica is listed in the 1981 and 1986 GFS Statistical Yearbooks, but does not provide any additional Outlays data.

*No data is available before 1976 or after 1979 for any variable from any budget or on any format (cd, yearbook, microfilm, online).*

**Sources:**
Dominican Republic
The Total Expenditure composite variables was constructed using Consolidated budget data for 1972-2000 and 2002-2008.
Data is for the Housing composite variable was pulled from the 1981, 1986, 1990 and 1995 GFS Statistical Yearbook for 1972-1989. It was originally reported in millions of pesos in every yearbook, but was adjusted by adding zeros and so remains in units.
Data for 2001 is missing for all variables. And 2004 – present for all variables but TotalExp.
No data is available after 2003 for any variables except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Ecuador
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1994.
The Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1972-1990.
Ecuador is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but does not provide any additional data.
No data is available after 1990 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Egypt
The Total Expenditure composite variable was constructed using Budgetary Central data for 1975-1979 and 1981-2009.
Data is missing for 1980 for all variables. Egypt is listed in the 1981 and 1986 GFS Statistical Yearbooks, but data for 1980 is not provided.

No data is available before 1975 or for 1980 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

El Salvador
Deleted the data before 2000 because it was too high and it was an obvious mistake.
The data for 1998 and 1999 for Social Spending is from the Development Network Growth Database.
The data for 1998 and 1999 for Social Protection is from the Development Network Growth Database.
The composite variables were constructed using Budgetary Central data for 1972-2009.
There is no missing data.
No data is available after 2009 variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Equatorial Guinea
The composite variables were constructed using Budgetary Central data for 2007-2009.
No data is available before 2007 from any budget or on any format (cd, yearbook, microfilm, online).

Estonia
The composite variables were constructed using Consolidated Budget data from 1991-2009. There is no missing data during this period.
Estonia is not listed in the 1981, 1986 or 1990 GFS yearbooks.
Data will not be available prior to 1991 for Estonia, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
No data is available before 1991 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Ethiopia
The source for the data on Social Spending from 1972 to 80 is Development Network Growth Database.
The source for the data on Social Protection from 1972 to 80 is Development Network Growth Database.
The Total Expenditure composite variables was constructed using Consolidated budget data for 1972-2000 and 2002-2008.
The composite variables were constructed using Budgetary Central for 1972-1999 and 2001-2005.

No data is available for 2000 or after 2005 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Fiji

The composite variables were constructed using Budgetary Central data for 1972-1996 and 2004-2006.

No data is available between 1997-2003 or after 2006 2005 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Finland

The composite variables were constructed using Consolidated budget data for 1972-2007. Total Expenditures also includes data for 2008. There is no missing data.

No data is available after 2007 for any variable except Total Expenditures2005 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

France

The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1975-1993 and Budgetary Central data for 1995-2008. All of these variables are missing data for 1994. France is listed in the 1981, 1986, 1990 and 1995 GFS Yearbooks, but provides no additional Outlays data.

No data is available before 1975, in 1994 or after 2008 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Gabon**
The Total Expenditure composite variable was constructed using Consolidated budget data for 1973-1976, 1979-1986 and 1990. All other Outlays data is missing. Gabon is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but does not provide date for any Outlays (indeed the entire section “B” is absent).

_no data is available for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online)._ 

**Sources:**

**Gambia**

_no data is available before 1973 or after 1993 for any variable from any budget or on any format (cd, yearbook, microfilm, online)._ 

**Sources:**

**Georgia**
The composite variables were constructed using Consolidated budget data for 1998-2009. Georgia is not listed in the 1981, 1986 or 1990 GFS yearbooks. Data will not be available prior to 1991 for Georgia, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.

_no data is available before 1998 for any variable from any budget or on any format (cd, yearbook, microfilm, online)._ 

**Sources:**

**Germany**
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009. The Defense, Housing, Health, Education and Social Protection composite variables were constructing using Consolidated budget data for 1972-1996 and Budgetary Central data for 1997-2009. There is no missing data.

_no data is available after 2009 for any variable from any budget or on any format (cd, yearbook, microfilm, online)._
Sources:

Ghana
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1993 and 2001-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1972-1982, 1984-1993 and 2001-2002. All of these variables are missing data for 1982.
Ghana is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks but does not provide any additional Outlays data.
No data is available for any variable between 1993-2001 and no data is available for any variable but Total Expenditure after 2002 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Greece
The source for the data on Social Spending from 1973 and 1978 is Development Network Growth Database.
The source for the data on Social Protection from 1972 to 1981 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.
Greece is listed in the 1981, 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available between 1982-1989 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Grenada
The composite variables were constructed using Budgetary Central data for 1974-1977 and 1991-1995.
Grenada is not listed in the 1990 or 1995 GFS Statistical Yearbook. Grenada is listed in the 1981 and 1986 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available before 1974, 1978-1990 or after 1995 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Guatemala
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.
The Defense, Health and Education composite variables were constructed using Budgetary Central data for 1972-1994 and 2000-2009.
The Housing and Social Protection composite variables were constructed using Budgetary Central data for 1972-1989 and 2000-2009.
Guatemala is listed in the 1995 and 1996 GFS Statistical Yearbook, but it does not provide any additional Outlays data.

No data is available between 1995-2000 for any variable except Total Expenditures from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Guinea
The Total Expenditure composite variable was constructed using Consolidated budget data for 1989-1992 and Budgetary Central data for 1998-1999. No other Outlay data was reported.
Guinea is listed in the 1981, 1985, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available for any variables except Total Expenditures from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Guinea-Bissau
The Total Expenditure composite variable was constructed using Budgetary Central data for 1983-1989.
The Defense, Health and Education composite variables were constructed using Budgetary Central data for 1983-1987 and 1989.
The Housing and Social Protection composite variables were constructed using Budgetary Central data for 1983-1987.
Guinea-Bissau is listed in the 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Guinea-Bissau is not listed in the 1981 or 1995 GFS Statistical Yearbooks.
Sources:
No data is available for any variables after 1989 from any budget or on any format (cd, yearbook, microfilm, online).

Guyana
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-1981 and 1983. 1983 data was pulled from the 1986 GFS Statistical Yearbook.
The Defense, Health, Housing, Education and Social Protection variables were constructed using Consolidated budget data for 1972-1983.
Guyana is listed in the 1981, 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data. Guyana is not listed in the 1995 GFS Statistical Yearbook.
No data is available after 1983 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Haiti
The source for the data on Social Spending from 1981 to 1987 is Development Network Growth Database.
The source for the data on Social Protection from 1981 to 1987 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1982. No other Outlays data was reported.
Haiti is listed in the 1981, 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Haiti is not listed in the 1995 GFS Statistical Yearbook.
No data is available after 1982 for any variable is available after 1982 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Honduras
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1979 and 2003-2009.
The Defense, Health, Housing, Education and Social Protection composite variables were constructed using Budgetary Central data for 1972-1979. All other data is missing.
Honduras is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Honduras is not listed in the 1990 or 1995 GFS Statistical Yearbook.
No data is available after 1979 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:
Hungary
The Total Expenditure composite variable was constructed using Consolidated budget data for 1981-1999 and 2001-2009. Central Budgetary data was used for 2000. The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1981-1999 and 2001-2009. Data for 2000 is missing for all of these variables. Hungary is listed in the 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data. Hungary is not listed in the 1981 GFS Statistical Yearbook. No data is available for any variable before 1981 or after 2009 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Iceland
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data. No data is available for any variable after 2009 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

India
The composite variables were constructed using Consolidated budget data for 1974-2009. However, Social Protection is not reported the same years, it is only available 1990-1997 and is reported as all zeros. India is listed in the 1980 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. However, according to the yearbooks, during the 1970s and 1980s, India reported Social Security, Welfare and Housing as a single variable (5,6,7 combined). The numbers that are provided in the yearbooks roughly correlate to the org_housing values for India. Therefore, a total Social Protection spending variable can still be made for India. No data is available for any variable before 1974 or after 2009 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

**Indonesia**
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1999 and 2001-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-2004.

No data is available for any variable for 2000, no data is available for any variable except Total Expenditure after 2004 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Iran**
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.

No data is available after 2009 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Ireland**
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1982-1989 and Budgetary Central data for 1990-2009.

Ireland is listed in the 1981 and 1986 GFS Statistical Yearbook, but does not provide any additional Outlays data.

No data is available before 1982 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Israel**
The composite variables were constructed using Consolidated budget data for 1972-2009.

No data is available after 2009 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Italy

Sources:

Jamaica
The Total Expenditure composite variable was constructed using Consolidated budget data 1975-1985 and 1992-2009. The Defense, Housing, Health, Education and Social Protection composite variables were created using Consolidated budget data for 1975-1977 and Budgetary Central data for 1992-2009. The Consolidated budget data for 1975-1977 was pulled from the 1986 GFS Statistical Yearbook. It was reported in millions of dollars, but was adjusted by adding zeros and so remains in units. Jamaica is in the 1981, 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data. Jamaica is not listed in the 1995 GFS Statistical Yearbook. *No further data is available for any variable from any budget or on any format (cd, yearbook, microfilm, online).*

Sources:

Japan
No data is available before 1991 or after 1993 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Jordan
The Total Expenditure composite variable was constructed using Budgetary Central data for 1974-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1974-1979 and 1981-2009. Data for 1980 is missing for all Outlays except Total Expenditure.
Jordan is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available before 1974 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Kazakhstan
The composite variables were constructed using Consolidated budget data for 1997-2009.
Data will not be available prior to 1991 for Kazakhstan, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.

No data is available before 1997 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Kenya
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.

Special notes/issues:
Originally Kenya appeared to be missing data for 1990, as the online database only provides data for 1991-2009. However, when consulting the 1990 and 1995 GFS Statistical Yearbooks, it seems as though the IMF made a mistake and started Kenya’s data in 1991 online rather than 1990. All Outlays have been checked and verified to be consistent between the book and online database, so the data points have all been moved up one, to start at 1990 per the yearbooks.
Kenya is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available before between 1975-1977 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Korea, South
The composite variables were constructed using Consolidated budget data for 1972-2008 and through 2009 for Total Expenditures only. There is no missing data. No data is available after 2008 for any variable except Total Expenditures from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Kuwait

No data is available for 1975-1976 or 2000-2001 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Kyrgyzstan
The Total Expenditure composite variable was constructed using Budgetary Central data for 1993-2001 and 2006-2009. The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1993-2001 and 2006. Kyrgyzstan is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. Data will not be available prior to 1991 for Kyrgyzstan, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries. No data is available before 1993, 2002-2005 or after 2009 for any variables from any budget or on any format (cd, yearbook, microfilm, online).

Sources:
Lao PDR
The Total Expenditure composite variable was constructed using Budgetary Central data for 2006-2009. No other data is provided.
No data is available before 2006 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Latvia
The composite variables were constructed using Consolidated budget data for 1994-2009. All composite variables except Total Expenditures pull the 2009 data for the Budgetary Central data.
Latvia is not listed in the 1981, 1986 or 1990 GFS yearbooks. Latvia is listed in the 1995 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
Data will not be available prior to 1991 for Latvia, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
No data is available before 1994 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Lebanon
The composite variables were constructed using Consolidated budget data for 1993-1996 and Budgetary Central data for 1997-2009.
No data is available before 1993 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Lesotho
The source for the data on Social Spending from 1990 to 1993 is Development Network Growth Database.
The source for the data on Social Protection from 1990 to 1992 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-1977 1987-2008.
Data for 2006-2008 was pulled from the Budgetary Central data.
Lesotho is listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available for the missing years for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Liberia
The composite variables were constructed using Budgetary Central data for 1974-1988 and 2005-2009. Total Expenditures is also provided for 2004. Liberia is not listed in the 1990 or 1995 GFS Statistical Yearbooks.

No data is available after 1989-2003 for any variables from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Lithuania
The Total Expenditure composite variable was constructed using Consolidated data for 1991 and 1993-2009. The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1993-2009. Lithuania is not listed in the 1981 or 1986 GFS yearbooks. Lithuania is listed in the 1990 and 1995 GFS Statistical Yearbook, but it does not provide any additional Outlays data. Data will not be available prior to 1991 for Latvia, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.

Special notes / issues:
In 2004-2006, Lithuania reported negative values for housing expenses to the Consolidated Budget (acc_housing) but not to the Central Budgetary budget (acc_cb_housing). Since the composite variable uses the Budgetary Central data, this is not an issue.

No data is available before 1993 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Luxembourg

No data is available for 1999 for any variables from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Macedonia**
The Total Expenditure composite variable was constructed using Budgetary Central data for 2005-2009. Data is not provided for any other Outlay variable or any year prior to 2005.

Macedonia is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. Data will not be available prior to 1991 for Macedonia, as it was part of former Yugoslavia during that period. This is typical of former Soviet and Eastern bloc countries. *No data is available for any variables, except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).*

**Sources:**

**Madagascar**

Madagascar is listed in the 1980 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. *No data is available between 1997-2000 for any variable from any budget or on any format (cd, yearbook, microfilm, online).*

**Sources:**

**Malawi**

Malawi is listed in the 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. *No data is available after 1989 for any variable from any budget or on any format (cd, yearbook, microfilm, online).*

**Sources:**

**Malaysia**
The source for the data on Social Spending from 1985 to 1987 is Development Network Growth Database.
The source for the data on Social Protection from 1985 to 1995 is Development Network Growth Database.
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2001 and Budgetary Central data for 2002-2009.
Malaysia is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available between 1981-1988 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Maldives
The Total Expenditure composite variable was constructed using Consolidated budget data for 1979-2009.
The Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1979-2008 and Budgetary Central data for 2009.
Maldives is listed in the 1986 GFS Statistical Yearbook but it does not provide any additional Outlays data. Maldives is not listed in the 1981 GFS Statistical Yearbook.
No data is available before 1979 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Mali
Mali is listed in the 1990 GFS Statistical Yearbook but it does not provide any additional Outlays data. Maldives is not listed in the 1995 GFS Statistical Yearbook.
No data is available after 1988 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Malta

Sources:

Mauritius
The source for the data on Social Spending from 1973 to 1999 is Development Network Growth Database.
The source for the data on Social Protection from 1973 to 1999 is Development Network Growth Database.
The Total Expenditures composite variable was constructed using Consolidated budget data for 1973-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1973-2008 and Budgetary Central data for 2009.
Mauritius is not listed in the 1981 GFS Statistical Yearbook. No data is available before 1973 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Mexico
The composite variables were constructed using Consolidated budget data for 1972-2000. Data is missing for 2001-present. 

No data is available after 2000 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources: 

Moldova
The Total Expenditures composite variable was constructed using Consolidated budget data for 1995-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1996-2009. 
Moldova is not listed in the 1981, 1986 or 1990 GFS Statistical Yearbooks. Data will not be available prior to 1991 for Moldova, as it was part of the former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries. 
No data is available before 1995 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources: 

Mongolia
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated data for 1992-2002. 
Mongolia is not listed in the 1981, 1986 or 1990 GFS Statistical Yearbooks. It is listed in the 1995 Yearbook, but it does not provide any additional Outlays data.

Special notes/issues: 
In 1996 Mongolia reports negatives values for spending on social protection to the Central Budgetary budget (cash_cb_protect), but not to the Consolidated budget (cash_protect). Because Consolidated budget data is used, this is not an issue.

No data is available before 1995 from any budget or on any format (cd, yearbook, microfilm, online).

Sources: 

Morocco
Data is missing for 1996, 2000-present.

No data is available after 1999 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Myanmar (Burma)
The composite variable was constructed using Consolidated budget data for 1973-2005. No data is available before 1973 or after 2005 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Namibia
The Total Expenditures composite variable was constructed using Budgetary Central data for 1986-2007.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 2000-2007.
Namibia is not listed in the 1981, 1986 or 1990 GFS Statistical Yearbooks. It is listed in the 1995 Yearbook, but it does not provide any additional Outlays data.
No data is available before 2000 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Nepal
The Total Expenditures composite variable was constructed using Consolidated data for 1972-2010.
The Defense, Housing, Health and Education composite variables were constructed using Consolidated budget data for 1972-1985 and 1987-2010. 1986 is missing for all variables except Total Expenditure.
The Social Protection composite variable was constructed using Consolidated data for 1997-2010.
Nepal is listed in the 1981, 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available for 1986 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Netherlands
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.

No data is available after 2009 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Netherlands Antilles
The composite variables were constructed using Consolidated budget data for 1972-1995. No data is available after 1995 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

New Zealand

New Zealand is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

Special notes / issues:
In 2004 NZ reported negative values for environmental spending (acc_cb_enviro and acc_enviro).

No data is available after 2007 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Nicaragua
The data on Social Spending for 1990 to 1994 is from the Development Network Growth Database.
The data on Social Protection for 1990 to 1994 is from the Development Network Growth Database.
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1986 and 1988-2009.
The Defense, Housing, Health, Education and Social Protection composite variable was constructed using Consolidated budget data for 1972-1980 and 1990-1994. Social Protection also has a single data point for 1997 pulled from the Budgetary Central data.
1987 is missing for all variables.
Nicaragua is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available for 1987 or after 1994 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Niger
The Defense, Housing, Health, Education and Social Protection composite variable was constructed using Consolidated budget data for 1976-1980.
Niger is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Niger is not listed in the 1990 or 1995 GFS Statistical Yearbooks.
No data is available before 1976 or after 1980 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Nigeria
Nigeria is listed in the 1981, 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Nigeria is not listed in the 1995 GFS Statistical Yearbook.
No data is available after 1987 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Norway
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2009.
Norway is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available for 1978-1979 for any variable but Total Expenditure from any
budget or on any format (cd, yearbook, microfilm, online).

Sources:
Statistics: Database and Browser [CD], Washington DC.
Retrieved February and June 2011, from http://www2.imfstatistics.org/GFS/

Oman
The composite variables were constructed using Central Budgetary data for 1972-2001.
No data is available after 2001 for any variable but Total Expenditure from any budget or
on any format (cd, yearbook, microfilm, online).
Sources:
Statistics: Database and Browser [CD], Washington DC.
Retrieved February and June 2011, from http://www2.imfstatistics.org/GFS/

Pakistan
The Total Expenditure composite variable was constructed using Consolidated budget data
The Defense, Housing, Health, Education and Social Protection composite variable was
constructed using Consolidated budget data for 1973-1986 and Budgetary Central data for
Yearbooks. It was reported in millions of rupees, but was adjusted by adding zeros and so
remains in units.
Pakistan is not listed in the 1995 GFS Statistical Yearbook.
No data is available between 1987-1997 for any variable except Total Expenditure from
any budget or on any format (cd, yearbook, microfilm, online).
Sources:
1972-1989 Total Expenditure data: International Monetary Fund. (2005) Historical
Government Finance Statistics: Database and Browser [CD], Washington DC.
Statistics Yearbook. Washington, DC, pg 465
Retrieved February and June 2011, from http://www2.imfstatistics.org/GFS/

Panama
The composite variables were constructed using Consolidated budget data from 1972-
Defense data for 1982-1986 was pulled from the 1990 GFS Statistical Yearbook.
Data is missing from 2002-present.
No data is available after 2001 for any variable from any budget or on any format (cd,
yearbook, microfilm, online).
Sources:
Statistics: Database and Browser [CD], Washington DC.
Papua New Guinea
The composite variables were constructed using Budgetary Central budget data from 1975-2002.
Data is missing from 2003-present.
Sources:

Paraguay
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-2009.
Paraguay is listed in the 1986, 1990 and 1995 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available after 1993 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Peru
Between 1972 and 1977 used the Development Growth Network Database for Social Spending.
The Total Expenditure composite variables were constructed using Consolidated budget data for 1972-2009.
The Defense, Health, Education composite variables were constructed using Budgetary Central data for 1972-1987. This data was pulled from the 1981 and 1990 GFS Statistical Yearbooks. 1972-1980 is listed in the data set as units per the book (billions of soles). 1981-1987 is listed in units as per the book (millions of intis). Zeros were not added because the other data that is available appears to be in the same units.
The Housing and Social Protection composite variables were constructed using Budgetary Central data for 1972-1987. This data was pulled from the 1981 GFS Statistical Yearbook. 1972-1980 is listed in the data set as units per the book (billions of soles).
Peru is listed in the 1995 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available after 1987 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:
Philippines
The composite variables were constructed using Budgetary Central data for 1972-2009.
There is no missing data.
No data is available after 2009 for any variable from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Poland
The Total Expenditure composite variables were constructed using Consolidated budget data for 1984-1988 and 1994-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1994-2009.
Poland is listed in the 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. Poland is not listed in the 1981 or 1986 GFS Statistical Yearbooks.
No data is available before 1994 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Portugal
The Total Expenditure composite variables were constructed using Budgetary Central budget data for 1974-2009.
Portugal is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
Special notes / issues:
In 2007 Portugal reported negative values for spending on housing to the Consolidated Budget (acc_housing) but not to the Central Budgetary budget. This is not an issue because Consolidated budget data is not used in the composite variable.
No data is available for 1976-1977 or 1989-1994 for any variables but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Qatar
The composite variables were constructed using Budgetary Central budget data for 2004-2009.
No data is available before 2004 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Romania
The source for the data on Social Spending from 1980 to 89 is Development Network Growth Database.
The source for the data on Social Protection from 1980 to 97 is Development Network Growth Database.
The composite variables were constructed using Consolidated budget data for 1972-2007. Total Expenditures also includes a data point for 2008. There is no missing data.
No data is available after 2007 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Russia
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1999-2009.
Russia (or the former Soviet Union) is not listed in the 1981, 1986 or 1990 GFS Statistical Yearbooks. Russia is listed in the 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.
No data is available before 1999 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Rwanda
The source for the data on Social Spending from 1980 to 89 is Development Network Growth Database.
The source for the data on Social Protection from 1973 to 80 is Development Network Growth Database.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1973-1980. This data was pulled from the 1986 GFS Statistical Yearbook. It was reported in millions of francs, but was adjusted by adding zeros and so remains in units.
Rwanda is listed in the 1981, 1986 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. It is not listed in the 1990 GFS Statistical Yearbook. No data is available after 1980 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:
Samoa
No data is available for Total Expenditures.
The remaining composite variables were constructed using Budgetary Central data for 1984.
Samoa is not listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks. No data is available before or after 1984 for any variables from any budget or on any format (cd, yearbook, microfilm, online).
Sources:
San Marino
The Total Expenditure composite variable was constructed using Consolidated budget data for 1995 and 2001-2006.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 2001-2004.
San Marino is not listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks. No data is available before 2001 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:
Senegal
Senegal is not listed in the 1986, 1990 or 1995 GFS Statistical Yearbooks. It is listed in the 1981 GFS Statistical Yearbook, but it does not provide any additional Outlays data.

No data is available 1984-1996 or after 2001 for any variable Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Serbia RB
Data for Serbia & Montenegro has been collapsed into Serbia RB and S&M have been deleted from the data set.
The Total Expenditure, composite variable was constructed using Consolidated budget data for 2007-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 2007-2009.
Serbia or Serbia & Montenegro or Montenegro are not listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks.

No data is available before 2007 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Seychelles
The Total Expenditure composite variables were constructed using Budgetary Central data for 1972-1978 and Consolidated budget data for 1985-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1972-1977 and Consolidated budget data for 1990-2008. The 1972-1977 data points were pulled from the 1986 GFS Statistical Yearbook. It was reported in millions of rupees, but was adjusted by adding zeros and so remains in units.
Seychelles is listed in the 1981, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available between 1978-1984 for any variables or between 1978-1990 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Sierra Leone
The Total Expenditure composite variables were constructed using Consolidated budget data for 1974-1998.

No data is available after 1990 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Singapore
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.

No data is available after 2009 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Slovakia
The composite variables were constructed using Consolidated budget data for 1996-2009. Data will not be available prior to 1993 for Slovakia, as it was part of the Czechoslovakia during that period.

No data is available before 1996 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Slovenia
The composite variables were constructed using Consolidated budget data for 1992-2009. Slovenia is not listed in the 1981, 1986, 1990 or 1995 GFS yearbooks. Data will not be available prior to 1992 for Slovenia, as it was part of former Yugoslavia during that period. This is typical of former Soviet and Eastern bloc countries.

No data is available before 1992 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Solomon Islands
The composite variables were constructed using Budgetary Central budget data for 1975-1988. For Total Expenditures a data point for 1989 is also provided.
Solomon Islands are listed in the 1981, 1986, 1990 or 1995 GFS yearbooks, but it does not provide any additional Outlays data.

No data is available after 1988 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Somalia
The composite variables were constructed using Budgetary Central budget data for 1972-1978.

Somalia is not listed in the 1990 or 1995 GFS Statistical Yearbooks. Somalia is listed in the 1981 and 1986 GFS yearbooks, but it does not provide any additional Outlays data.

No data is available after 1978 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

South Africa
The source for the data on Social Spending from 1984 to 85 is Development Network Growth Database.
The source for the data on Social Protection from 1984 to 85 is Development Network Growth Database.
The Total Expenditure composite variables were constructed using Budgetary Central data for 1972-1995 and 1997-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1995, 2001-2008.

South Africa is listed in the 1981, 1986, 1990, 1995 GFS yearbooks, but it does not provide any Outlays data.

No data is available before 1995 or between 1996-2001 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Spain
Total Expenditure composite variables were constructed using Consolidated budget data for 1972-2009.

1999 data points appear to be missing due to a switch from cash to accrual reporting.
Spain is listed in the 1981, 1986, 1990, 1995 GFS yearbooks, but it does not provide any additional Outlays data.

No data is available for 1986 or 1999 any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Sri Lanka
The composite variables were constructed using Budgetary Central data for 1973-2009. Sri Lanka is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data for 1972. No data is available before 1973 for any variable from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

St Kitts & Nevis
St Kitts & Nevis are not listed in the 1981 or 1986 GFS Statistical Yearbooks. St Kitts & Nevis are listed in the 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. No data is available before 1985 for any variable or between 1987-2003 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

St Vincent & the Grenadines
The Total Expenditure, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1978-1993. Data for 1991-1992 was pulled from the 1995 GFS Statistical Yearbook. The Defense composite variable was constructed using Budgetary Central data for 1972-1993. Data for 1991-1992 was pulled from the 1995 GFS Statistical Yearbook. It was reported in millions of dollars, but was adjusted by adding zeros and so remains in units. No data is available before 1978 for any variable but Defense or from 1994-present for any variable from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Sudan
Sudan is not listed in the 1990 or 1995 GFS Statistical Yearbooks. Sudan is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available for 1981, 1983-1997 or after 1999 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Suriname
Social Spending Data from 1972 to 1986 is from Development Network Growth Database.
Social Protection Data from 1972 to 1986 is from Development Network Growth Database.
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-1976 and 1984-1986.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-1976 and 1986.
Suriname is not listed in the 1995 GFS Statistical Yearbook. Suriname is listed in the 1981, 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available after 1986 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Swaziland
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1989 and 1999-2003.
Swaziland is not listed in the 1995 GFS Statistical Yearbook. Swaziland is listed in the 1981, 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data.

No data is available after 2000 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:
Sweden
The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2008 and Budgetary Central data for 2009. The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-2008. There is no missing data. 

No data is available after 2008 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Switzerland
Switzerland is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available for any variable between 1985-1990 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Syria
Syria is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available between 1982-1986 for any variable or after 1999 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Tajikistan
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1998-2001.
Data will not be available prior to 1991 for Tajikistan, as it was part of former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.

No data is available before 1998 or after or after 2001 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Tanzania
The composite variables were constructed using Consolidated budget data for 1972-1985. 
Tanzania is not listed in the 1995 GFS Statistical Yearbook. Tanzania is listed in the 1981, 1986 and 1990 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available after 1985 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Thailand
The composite variables were constructed using Consolidated budget data for 1972-2009.
There is no missing data.

No data is available after 2009 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Togo
The Total Expenditure composite variable was constructed using Consolidated budget data for 1977-1987 and Budgetary Central data for 2004-2009.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1977-1979, 1981-1987. Data for 1981, 1984 and 1986 were pulled from the 1990 GFS Statistical Yearbook. It was reported in millions of francs, but was adjusted by adding zeros and so remains in units.

Togo is not listed in the 1995 GFS Statistical Yearbook. Togo is listed in the 1981 and 1986 GFS Statistical Yearbooks, but it does not provide any additional Outlays data.

No data is available after 1987 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

**Tonga**
The Total Expenditure, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1980-1989. Data for 1991 and 1992 were pulled from the 1995 GFS Statistical Yearbook. The Defense composite variable was constructed using Consolidated budget data for 1980 and 1981. Tonga is not listed in the 1981 or 1986 GFS Statistical Yearbooks. Tonga is listed in the 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data.

No data is available before 1980 or after 1991 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

**Sources:**

**Trinidad and Tobago**

No data is available before 1976 or between 1996-2000 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

**Sources:**

**Tunisia**
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.

No data is available after 2009 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

**Sources:**

**Turkey**
The source for the data on Social Spending from 1987 to 98 is Development Network Growth Database.
The source for the data on Social Protection from 1987 to 98 is Development Network Growth Database.
Turkey is listed in the 1981, 1986, 1990 and 1995 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available after 2001 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Uganda
The Total Expenditure composite variable was constructed using Budgetary Central data for 1972-1986 and 1998-2009.
Uganda is not listed in the 1995 GFS Statistical Yearbook. Uganda is listed in the 1981, 1986 and 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data.
No data is available between 1987-1997 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

Ukraine
The composite variables were constructed using Budgetary Central data for 1999-2009. There is no missing data.
Ukraine is not listed in the 1981, 1986, 1990 or 1995 GFS Statistical Yearbooks. Data will not be available prior to 1991 for Ukraine, as it was part of former Soviet Union during that period. This is typical of former Soviet and Eastern bloc countries.
No data is available before 1999 from any budget or on any format (cd, yearbook, microfilm, online).
Sources:

United Arab Emirates
The composite variables were constructed using Budgetary Central data for 1972-1999. Data is missing for 2000-2009.
No data is available after 1999 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

United Kingdom
The composite variables were constructed using Consolidated budget data for 1972-2008. Total Expenditure has data through 2009. There is no missing data.
No data is available after 2008 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

United States
The composite variables were constructed using Consolidated budget data for 1972-2009. There is no missing data.
No data is available after 2009 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Uruguay
No data is available during 2001-2002 for any variable except Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Vanuatu
Vanuatu is not listed in the 1980, 1986 or 1995 GFS Statistical Yearbooks. Vanuatu is listed in the 1990 GFS Statistical Yearbook, but it does not provide any additional Outlays data.

No data is available after 1999 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Venezuela
The source for the data on Social Spending from 1972 to 86 is Development Network Growth Database.
The source for the data on Social Protection from 1972 to 86 is Development Network Growth Database.

The Total Expenditure composite variable was constructed using Consolidated budget data for 1972-2005.
The Defense, Housing, Health, Education and Social Protection composite variables were constructed using Consolidated budget data for 1972-1986 and 1999-2005. Data for these Outlays was pulled from the 1981, 1986 and 1990 GFS Statistical Yearbooks. It was reported in millions of bolivares, but was adjusted by adding zeros and so remains in units.

No data is available between 1987-1998 for any variable but Total Expenditure from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Vietnam
Vietnam is not listed in any IMF GFS sources, for any years or budgets (cd, yearbook, microfilm, online).

West Bank and Gaza
The composite variables were constructed using Budgetary Central data for 2005-2009.

No data is available before 2005 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Yemen
The composite variables were constructed using Budgetary Central data for 1990-1999. From 1972-1990 only the Arab Republic of Yemen (North Yemen) reported data to the IMF. The PD of Yemen did not report Outlays to the IMF during this time. Yemen was reunified in 1990.

No data is available before 1990 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Yugoslavia
The composite variables were constructed using Consolidated budget data for 1972-1989. Yugoslavia will not have data after 1991 because it dissolved in that year.

No data is available after 1989 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Zambia
The Total Expenditure, Housing, Health, Education and Social Protection composite variables were constructed using Budgetary Central data for 1972-1999 and 2001-2007. The Defense composite variable was constructed using Consolidated budget data for 1972-1988 and Budgetary Central data for 1990, 1993-1999 and 2001-2007. Data for 1986-1988 was pulled from the 1990 GFS Statistical Yearbook. It was reported in millions of kwacha, but the value is zero so the units are unimportant / do not affect the data.

No data is available for 2000 for any variable from any budget or on any format (cd, yearbook, microfilm, online).

Sources:

Zimbabwe
The source for the data on Social Spending from 1976 to 89 is Development Network Growth Database.
The source for the data on Social Protection from 1976 to 89 is Development Network Growth Database.

The Total Expenditure composite variable was constructed using Consolidated budget data for 1976-1997.
Zimbabwe is not listed in the 1981 GFS Statistical Yearbook. Zimbabwe is listed in the 1986, 1990 and 1995 GFS Statistical Yearbooks, but it does not provide any additional Outlays data. 

No data is available between 1990-1992 for any variable but Total Expenditures or after 1997 from any budget or on any format (cd, yearbook, microfilm, online).

Sources:
SECTION THREE: CONSTRUCTING PROGRESSIVITY OF TAX STRUCTURE

1. Taxes on Income, Profits and Capital Gains as % GDP

We measure direct taxation as % GDP on an annual basis for each country in the dataset. Both the numerator and denominator (GDP) are in current local currency units. The source for nominal GDP is always the World Bank Development Indicators (WBDI). Following Lieberman (2002) and Timmons (2008), I operationalize Direct Taxation as Government Revenues from Taxes on Income, Profits, and Capital Gains, which I describe further below. The sources vary by country and are discussed and identified below as well.

Sources and Procedures:

Our goal was to create consistent time series of direct taxation with the greatest longitudinal coverage possible since 1972 for each country in the dataset. We drew on several secondary sources and some primary sources in order to construct this measure. The secondary sources include:

- I. The World Bank Development Indicators, Online edition.
- K. The Economist Intelligence Unit (EIU) Country Reports, various
- L. The IMF Country Reports, various.

The majority of the data used for direct taxation was from the first three sources identified above. The reason we pulled data from multiple sources, however, is that the different IMF datasets was not able to maximize coverage on its own. Nevertheless, we are confident that this variable is reliable and valid across space and time because I standardized the tax data from non-IMF sources according to the fiscal categories employed by the IMF’s GFSY as outlined in the GFSY Manual (2001). We categorized government revenues using the six major tax groups identified by the IMF and categorized according to their base: 1) income, profits and capital gains; 2) payroll and workforce; 3) property; 4) goods and services; 5) international trade/transactions; and 6) other taxes. Following the IMF, government revenues from income, profits, and capital gains includes taxes on wages, salaries, and other compensation; taxes on interest, dividends, rent, and royalties; taxes on capital gains and losses on land, securities, and other assets; profits from corporations, partnerships, and sole proprietorships, as well as from estates and trusts; and taxable income from social security and other insurance schemes (IMF 2001: 50). The data sources I employed are listed in Table 1 on a country-by-country basis.
2. Sources used listed by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Code</th>
<th>Source</th>
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<td>Afghanistan</td>
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<td>Albania</td>
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<td>DZA</td>
<td>Statistical Yearbook of Algeria and IMF Online Version</td>
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SECTION 5: CODING RULES FOR COUNTRIES

1. Harmonizing Country Definitions

In order to link together variables from disparate sources we relied on a uniform system of country definitions. We code countries following the Correlates of War (COW) dataset (http://www.correlatesofwar.org/) except for a few modifications. As a general rule, when a country is split in two, and later reunified, we treat that country as having a single country code (rather than break it up into separate countries). Our modifications to the COW country identifiers are as follows:

Czechoslovakia is observed until 1992. In 1993, two new countries are observed: The Czech Republic and Slovakia.

Ethiopia and Eritrea are unified as Ethiopia until 1993. Post 1993, Ethiopia is treated as the same country as pre-1993 Ethiopia. Eritrea is treated as a new country, beginning in 1994.

Germany is treated as a single country across its history. For 1945-1990, we treat West Germany (Germany Federal Republic) and Germany as identical. Therefore, East Germany is not observed in the dataset.

Pre-1922 Russia, the Soviet Union, and Post-1991 Russia are treated as a single country. Former provinces of the Soviet Union, which become sovereign at the end of 1991 (e.g. Azerbaijan, Turkmenistan, Belarus, Ukraine), are treated as sovereign countries since 1992.

Vietnam is treated as a single country from 1954 to 2006: I treat Vietnam and North Vietnam as identical; South Vietnam is not observed in the dataset.

Yugoslavia is treated as a single country from 1920 to 1991, when it disappears. We treat the states that emerge out of it as sovereign countries.

We do not observe the following countries during the following years: Estonia, Latvia and Lithuania before 1991 because of missing data.
**SECTION 6: ADDITIONAL REGRESSION ANALYSES**

*Interactions of Elite Biased Democracy and Inequality*

Social conflict theory suggests that the relationship between regime type and redistribution is non-linear: the effect of democracy should strengthen at higher levels of inequality.¹ Conversely, the dampening effect of elite manipulation on redistribution during democratic transition and beyond should also strengthen at higher levels of inequality. To test this hypothesis, Table 1 adds an interaction term between countries’ level of income inequality and Democracy with Autocratic Constitution into the regressions reported in Table 3 in the main paper. We also include the constituent terms: Democracy with Autocratic Constitution and Income Inequality. We measure income inequality as the Income Gini Index from SIDD, which is coded “0” for perfect equality and “100” for perfect inequality.² The overall mean value is 44.14, with a standard deviation of 9.5, a minimum of 17.78, and a maximum of 65.69 (n=5676). The SIDD Gini’s within-variation is extremely low, however (the within standard deviation is only 2.68 versus 9.62 for the between standard deviation), given the particularly sticky nature of a country’s distribution of income. Therefore, in Table 1 we estimate pooled OLS models that exploit both the data’s within and between variation to obviate issues of insufficient time-series variation and measurement error.

In Columns 1 and 2 we exclude Democracy Amends Autocratic Constitution, biasing against our hypothesis by making Democracy with Autocratic Constitution a noisier measure of elite manipulation. As expected, the coefficient on the interaction term is negative and statistically significant. Increasing income inequality by one point reduces Social Spending by 0.13 percentage points for democracies with autocratic constitutions. Meanwhile, for democracies without autocratic constitutions (represented by uninteracted Income Inequality), increases in income inequality translate into increases in social spending, consistent with social conflict theory (Column 1). The results are almost identical when redistribution is measured as Welfare and Insurance (Column 2). And, as expected, the results are even stronger when we add Democracy Amends Autocratic Constitution to the regressions (Columns 3-4).

**Coding a Meta-category for Elite Weakness**

In the paper we treated Democracy After Revolution and Democracy with Autocratic Constitution as two separate metrics for elite weakness on the eve of democratic transition. What happens if we instead collapse episodes in which democracies follow revolutions and episodes in which democracies do not inherit autocratic constitutions into a single, meta-category (Elite Weakness Composite)? Columns 1-3 of Table 2 report these results. These models exclude Progressive Taxation as a control to enable more direct comparison to the Table 3 models, although the results are similar when Progressive Taxation is included. Columns 1-3 confirm our previous findings: for all three measures of redistribution, elite weakness upon transition yields higher redistribution under democracy.

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Table 1. Interactions of Income Inequality and Elite Strength

Dependent Variable is Redistribution % GDP
Robust t-statistics in brackets

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLE</th>
<th>(1) Social Spending</th>
<th>Welfare &amp; Insurance</th>
<th>(2) Social Spending</th>
<th>Welfare &amp; Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Democracies</td>
<td>-0.142</td>
<td>0.142</td>
<td>-0.082</td>
<td>0.309</td>
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<tr>
<td></td>
<td>[0.51]</td>
<td>[0.51]</td>
<td>[0.32]</td>
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<tr>
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<td>5.501</td>
<td>5.488</td>
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<td>[2.81]**</td>
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<td>Autocratic</td>
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<td></td>
<td></td>
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<tr>
<td>Constitution</td>
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<td>3.129</td>
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<tr>
<td>Democracy</td>
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<td>[7.92]**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autocratic</td>
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<td>-0.096</td>
<td>-0.142</td>
<td>-0.118</td>
</tr>
<tr>
<td>Gini Coefficient</td>
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<td>-0.08</td>
<td>0.033</td>
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<td>-0.142</td>
<td>-0.118</td>
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<td>[5.26]**</td>
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<td>-0.647</td>
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<td>[5.40]**</td>
<td>[3.20]**</td>
<td>[8.73]**</td>
<td>[3.47]**</td>
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</tr>
<tr>
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<td>1.117</td>
<td>0.521</td>
<td>1.023</td>
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<td>Income)</td>
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<td>0.255</td>
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<td>[8.73]**</td>
<td>[3.47]**</td>
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<td>-0.049</td>
<td>-0.02</td>
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<td>[3.66]**</td>
<td>[1.41]</td>
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<td>101</td>
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* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: linear, quadratic and cubic time trends estimated but not reported. Driscoll-Kraay Robust t-statistics in brackets with a Newey West correction for serial correlation. All controls starting with log(Per Capita Income) lagged by one period.
Table 2. Composite Measure of Elite Weakness and Redistribution

Dependent Variable is Redistribution % GDP
Robust t-statistics in brackets

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLE</th>
<th>(1) Social Spending</th>
<th>(2) Welfare &amp; Insurance</th>
<th>(3) Progressive Taxation</th>
</tr>
</thead>
<tbody>
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<td>All Democracies</td>
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<td>-0.245</td>
<td>-0.593</td>
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<td></td>
</tr>
<tr>
<td>Democracy with</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Autocratic Constitution</td>
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<td></td>
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<tr>
<td>Democracy Amends</td>
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<td></td>
</tr>
<tr>
<td>Autocratic Constitution</td>
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<td>Elite Weakness Composite</td>
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<td>[4.44]**</td>
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<td>0.004</td>
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</tbody>
</table>

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: linear, quadratic and cubic time trends estimated but not reported. Country fixed effects controlled for via within-transformation technique. Driscoll-Kraay Robust t-statistics in brackets with a Newey West correction for serial correlation. Elite Weakness Composite is Democracy After Constitution or Democracy with Autocratic Constitution. All controls starting with log(Per Capita Income) lagged by one period.