Constructing a Reliable and Consistent Budgetary Series for the US National Government

Codebook

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To estimate the long-term US budgetary growth path requires extended time series, yet assembling reliable time series estimates of appropriations and agency requests over extended periods of time is not possible, and, indeed, would be challenging even since WWII. Data series are incompatible, and not tabulated consistently. Budgetary authority (the authority granted by congress to agencies to spend money) is assembled consistently only after 1976. Annual appropriations or budgetary authority do not translate automatically into annual outlays or expenditures because a lag can exist before agencies can gear up and spend congressional appropriations, but expenditure series are most consistently available. However even long-run estimates of government expenditures do not exist in a pure form.

As a consequence, we found it necessary to construct such a series. Our data come from two separate sources, which are unfortunately not completely consistent. One series was maintained by the Treasury Department beginning 1791, but was discontinued in 1970 (TABLE Ea636–643; Carter et. al. 2006). The second is maintained by the Office of Management and Budget, which produces consistent and reliable estimates of expenditures on an annual basis from 1940 to the present (OMB Historical Statistics, Table 3.1).

The Treasury series offers only total expenditures and the sub-categories of defense and domestic. OMB offers a finer-grained set of expenditure categories. The period of overlap for the series, 1940-1970, offers a basis for comparing the two series. The series exhibit some slight differences for total expenditures, with more troublesome differences for the two subcategories of defense versus domestic (estimated for the OMB series as total expenditures minus defense expenditures). These differences exist because OMB adjusts its series for any changes in categorization rules back to 1940. If a categorization change occurs in, say, 1975, OMB adjusts the older 1940-1974 data for the change. This is necessary to ensure that OMB's subcategories are comparable through time. The Treasury series clearly were not adjusted in a similar manner. Differences affect the allocation between domestic and defense, particularly during WWII and the Korean War. Figure 1 charts the magnitude of these differences for the overlap period. It seems clear that some elements categorized in the Treasury series as domestic were transferred to the defense category for the OMB series. The defense category for OMB is consistently higher for the overlap period, and the differences are amplified during World War II and the Koran War periods. Interestingly the difference does not emerge during the Vietnam War, when national mobilization was much less severe.

We have conducted analyses with two separate synthetic series. One, the Treasury Synthetic, uses Treasury data from 1791 to 1970, and OMB data afterward. The other, the OMB Synthetic, uses Treasury data from 1791 to 1940, and OMB data afterward. Separate analyses on each series indicated some minor differences. While we detected nothing that would change our general conclusions, we present analyses based on the OMB Synthetic, as we have more confidence in OMB's system.

The next step is to adjust for inflation. While better measures are available for part of the series, we used the Consumer Price Indexes (CPI) in this adjustment, because it is the only measure available for the full series.[1]

The data are presented in spreadsheet form, and may be downloaded from the Policy Agendas Project website.

Reference

Carter, Susan B., Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, Gavin Wright, eds. *Historical Statistics of the United States, Millennial Edition*. Cambridge University Press.

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[1] Data constructed from *Historical Statistics of the United States: Millennial Edition* database TABLE Cc1-2. We supplemented from OMB's Historical Statistics, and recalculated to base year 2000 = 100. The US used a July 1 – June 30 Fiscal Year from 1789 to 1842; a January 1 – December 31 Fiscal Year from 1843 to 1976, and a October 1 – September 30 Fiscal year since 1977. We adjusted by doubling the reported expenditure in 1943, and simply neglected the transition quarter reported for 1977 by OMB.

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Column	Variable	Notes
A	Fiscal Year	
B	Total Expenditures—Treasury Based Synthetic Series	Nominal millions of dollars
C	Defense Expenditures—Treasury Based Synthetic Series	Nominal millions of dollars
D	Domestic Expenditures—Treasury Based Synthetic	Nominal millions of dollars
E	Total Expenditures—OMB Based Synthetic Series	Nominal millions of dollars
F	Defense Expenditures—OMB Based Synthetic Series	Nominal millions of dollars
G	Defense Expenditures—OMB Based Synthetic Series	Nominal millions of dollars
H	blank	
I	Total Expenditures, Inflation-adjusted—OMB Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
J	Defense Expenditures, Inflation-adjusted—OMB Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
K	Domestic Expenditures, Inflation-adjusted—OMB Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
L	Total Expenditures, Inflation-Adjusted—Treasury Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
M	Total Expenditures, Inflation-Adjusted—Treasury Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
N	Total Expenditures, Inflation-Adjusted—Treasury Based Synthetic Series	Adjusted using the Consumer Price Index (2000 base)
O	blank	
P	Consumer Price Index (2000 Base)	

Figure A1: Differences between the Treasury and OMB Series, Adjusted for Inflation, for the Overlap Period, Defense and Domestic Expenditures