

## **USING THE GROSS DOMESTIC PRODUCT TO MEASURE THE ROLE AND SIZE OF GOVERNMENT (EXERCISE)**

The role of government is much broader than its sheer size alone. A government's laws (such as incorporation), regulations, licensing, education, mandates on other governments, purchases and contracts, and more contribute to the role of government. We often limit the discussion of government's role to the size of its budget because this is relatively simple to measure. The size of the budget usually is measured as a share of the economy or the gross domestic product. This measurement addresses the allocation role of the budget or the role of government in a mixed-market economy.

### **Gross Domestic Product**

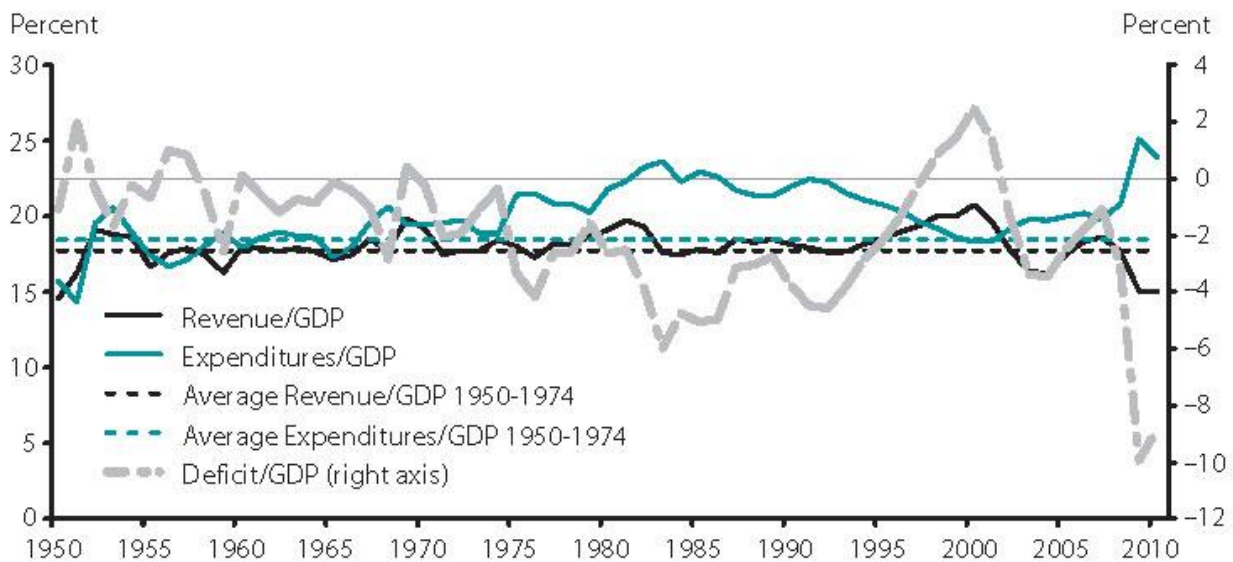
The Gross Domestic Product (GDP) is a measure of the total value of goods and services produced in a specific country during a set time period. The GDP for the U.S. is calculated by the U.S. Department of Commerce, Bureau of Economic Analysis by adding together private and government spending on final goods and services, business investment in capital, and the total value of exports, and then subtracting the total value of imported goods.

The GDP is the broadest indicator of economic performance. Its change over time reflects the pace of economic growth or economic performance. Therefore, comparing budget figures to the GDP gives us a lot of useful information. Comparing the deficit, debt, and total government budget to the economy tells us whether they are bigger or smaller than we prefer them to be.

The proportion of the GDP often is used to measure whether spending, borrowing, and revenues are affordable (see box 1 and figure 1). An increase in spending may be thought affordable if economic growth outpaces the growth in spending; in this case, the proportion of GDP falls even when actual spending increases. The opposite—a growing percentage of the GDP—can raise a

warning flag. In the United Kingdom, for example, the Treasury adopted “the sustainable investment rule” for government debt at below 40 percent of GDP. Expressing a specific category of spending as a percent of economic activity suggests the relative priority in society for this use of governmental resources.

**Federal Deficit, Revenue, and Expenditures as Percent of GDP (1950-2010)**



SOURCE: Kliesen, Kevin L. and Daniel L. Thornton, 2011. The Federal Debt: Too Little Revenue or Too Much Spending? Federal Reserve Bank of St. Louis, Economic Synopses, 20, p. 2, <http://research.stlouisfed.org/publications/es/11/ES1120.pdf>.

**Figure 1. Federal Budget Components as Percent of GDP, 1950-2010**

### **Box 1. Role of Federal Government**

“One measure of the role of government is the size of government spending relative to the economy. Over the past 40 years, federal *expenditures* have averaged 20.7 percent of GDP. Government activities can be financed by current taxes or borrowing (which will necessitate higher future taxes or lower future spending). ... [O]ver the past 40 years, the ratio of federal *taxes* to GDP has fluctuated around an average value of 18.3 percent. The ratio rose well above that level in the late 1960s, the early 1980s, and the late 1990s. Each of these periods was then followed by several years in which the ratio fell below its long-term average. Recent swings have been particularly pronounced with the ratio reaching a post-World War II high of 20.9 percent in 2000. Tax revenues increased strongly relative to GDP from 1992 to 2000 as a result of rising real incomes, increases in capital gains realizations, and the tax increases of the early 1990s. Tax revenues as a share of GDP tend to rise when real incomes rise and fall when real incomes fall. Beginning in 2001, tax revenues began to decline as the economy slipped into recession and real incomes declined. The ratio of tax revenues to GDP fell to 16.3 percent (a 40-year low) in 2004. Since that time, tax revenues have grown faster than the economy, resulting in a tax-to-GDP ratio of 18.8 percent in 2007, once again above its 40-year average.”

Source. Economic Report of the President, 2008,

<http://origin.www.gpoaccess.gov/eop/index.html>, pp. 116-117, capitalization changed.

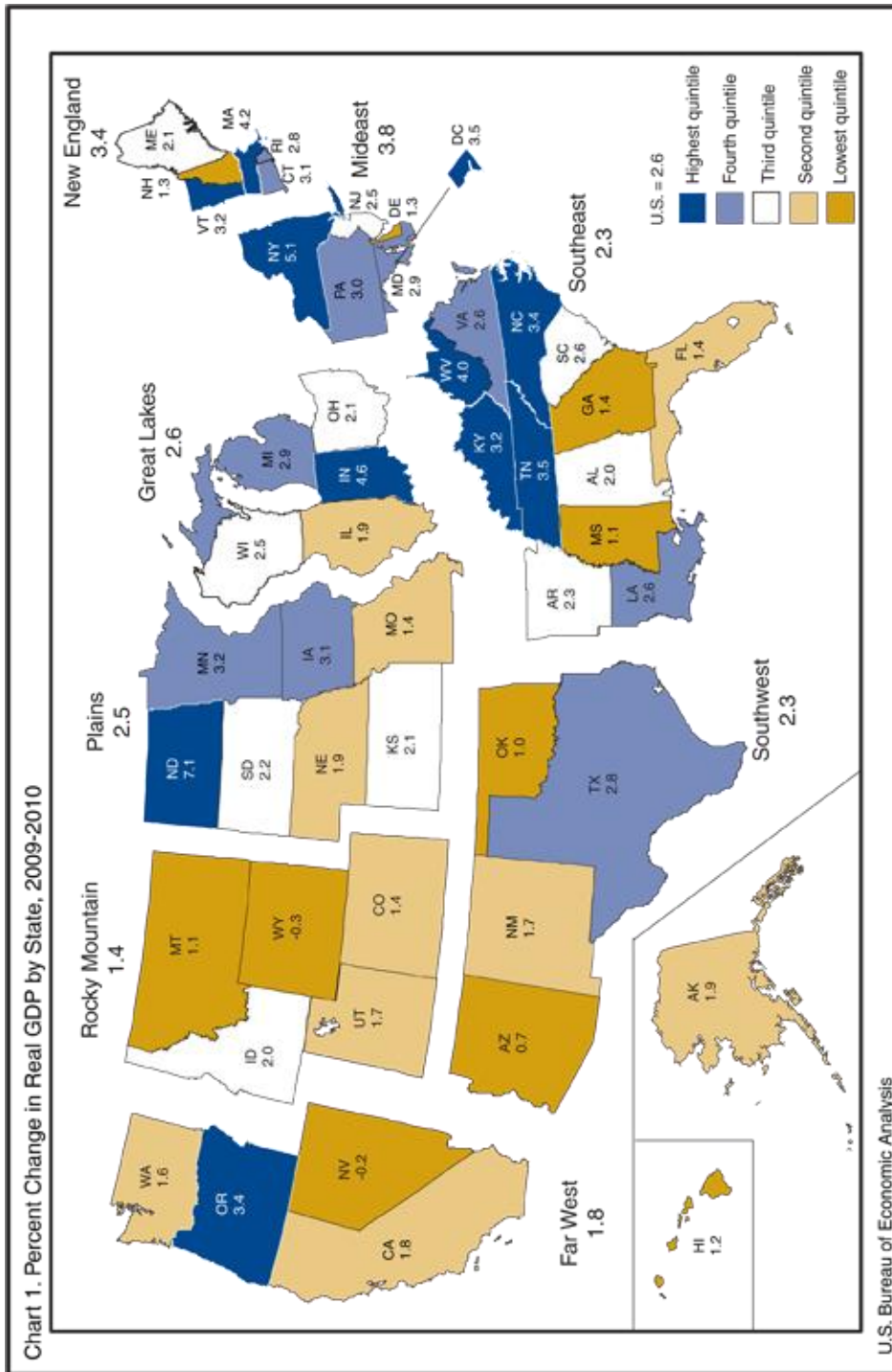
We can interpret today's figures by comparing the percentage to our own history as in figure 1 or to the percentage in other countries. The Organization for Economic Cooperation and

Development and the World Bank develop comparisons among countries using the GDP. The European Union reports general government expenditures as a percent of GDP for its member states. The United Nations Online Network in Public Administration and Finance (UNPAN) compares countries and regions according to the role of the national government in the economy. This role is measured by the percent of the GDP accounted for by the government. In developed countries with a stronger public sector, government spending on the average accounts for less of the country's economy than does spending in developing countries. With higher GDPs, developed countries on the average spend a higher percentage of their GDP on "modern state functions" such as health and social services than do developing countries.

### **Measuring the Size of State Government**

The size of state government can be measured by looking at the government's spending or revenues relative to the size of the state's economy. The Bureau of Economic Analysis provides this information (see figure 2). Why look at state spending as a percent of GDP? Some may argue,

the appropriate measure of changes in state spending is one that assesses whether a given state can continue to provide existing services. The simplest way to look at the buying power of state dollars is to adjust spending for overall inflation and total population changes, as is often done. However, inflation plus population is only a partial adjustment for the true cost of providing a constant level of public services (McNichol and Harris, 2004, p. 15).

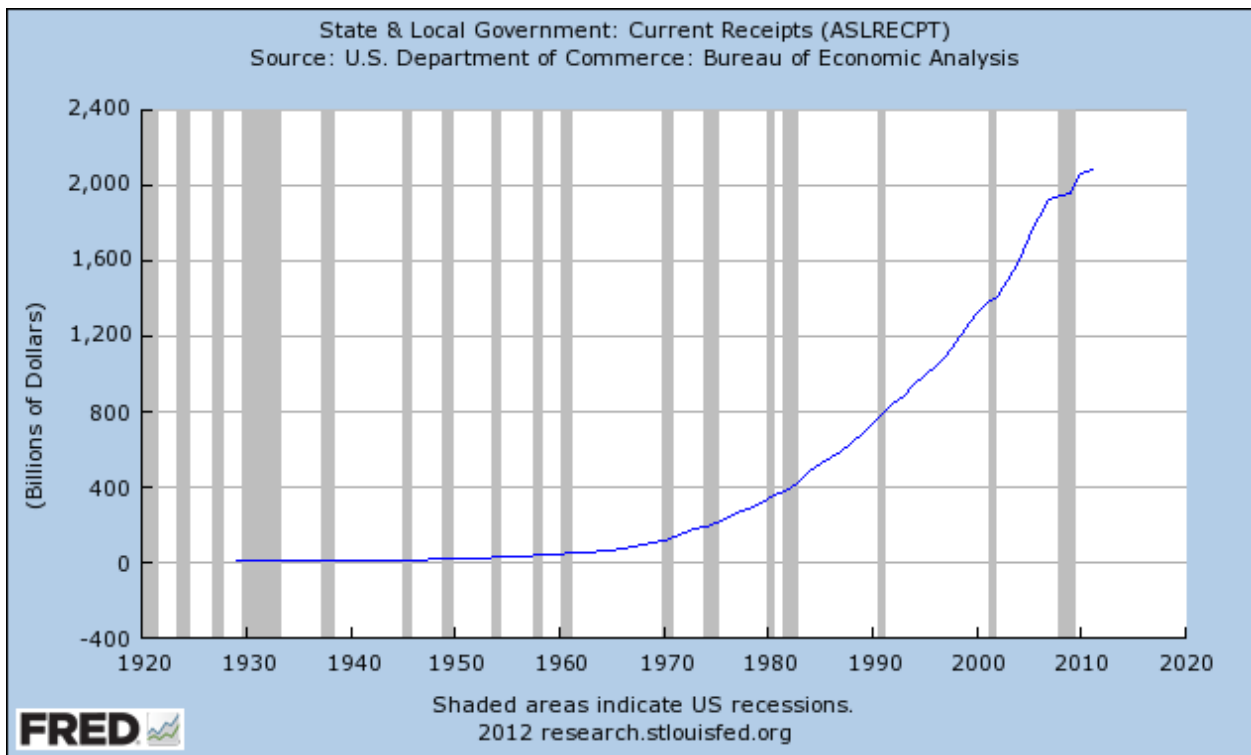


SOURCE: Bureau of Economic Analysis, 2011. June,  
[http://www.bea.gov/newsreleases/regional/gdp\\_state/gsp\\_glance.htm](http://www.bea.gov/newsreleases/regional/gdp_state/gsp_glance.htm).

**Figure 2. Percentage Change in Real GDP by State, 2009-2010**

**Problem: How big is your state government?**

1. Analyze your state's revenues as a percent of your state's gross domestic product. How big is your state government?
2. Hardier souls may wish to tackle this question: Has the size of your state government increased or decreased over the past decade?
3. Compare the information in figure 3 to the information in figure 2. What information does each offer and what does each figure omit? Which is more useful for communicating political problems or priorities in your state's budget, and why?



SOURCE: Federal Reserve Bank of St. Louis, 2012. FRED,

<http://research.stlouisfed.org/fred2/graph/?id=ASLRECPT>.

**Figure 3. State and Local Governments' Current Receipts, 1929-2011**

## **References**

McNichol, Elizabeth and Mekeda Harris, 2004. Many States Cut Budgets as Fiscal Squeeze

Continues. Center on Budget and Policy Priorities, p. 1, <http://www.cbpp.org/4-22-04sfp.pdf>.

## **Further Resources**

Bureau of Economic Analysis, GDP by state, <http://www.bea.gov/regional/index.htm>

and interactive mapping, <http://bea.gov/iTable/iTable.cfm?reqid=99&step=1>

European Union statistics, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>

NationMaster, central data source, <http://www.nationmaster.com/index.php>

OECD statistics, at iLibrary, <http://www.oecd-ilibrary.org/statistics>

World Bank indicators, <http://data.worldbank.org/indicator>