Handout

Name_____ Period_____

The expenditure method for calculating GDP divides spending into four categories: consumption, investment, government spending, and net exports.

Components

1. Consumption (C). This is consumer spending on final goods and services, such as food, education, computers, gasoline, and medical expenses. Notice that only "final" goods and services are counted—these are goods and services sold to the end user. Intermediate goods are those that are used in the production of goods and services. While not counted directly, the value of an intermediate good (e.g., a car windshield) is reflected in the price of the final good (a new car) or service (a replacement windshield). This is the largest component of GDP; it represented 71 percent of total spending in 2012.

2. Investment (I). This is business spending on capital goods—tools, equipment, and buildings. A business investment might be a firm upgrading its computer system, buying a new forklift, or adding to its fleet of delivery vans. To be clear, "investment" in this sense is not about buying stocks and bonds—economists refer to this activity as saving. Investment spending refers to the purchase of physical capital. Changes in inventories, which are stocks of goods and raw materials held to facilitate business operations, are also counted as changes in investment. One last category counted here is construction of new structures such as factories and new homes. This component represented 13.1 percent of total spending in 2012.

3. Government spending (G). This is spending by all levels (federal, state, and local) of government on goods and services. This component includes salaries of police and firemen, weapons for the military, and infrastructure spending on new highways and bridges. It does not include spending on Social Security or unemployment benefits—these are considered transfer payments. Spending on transfer programs is measured when the money is spent by the recipients on goods and services. This component represented 19.2 percent of total spending in 2012.

4. Net exports (NX). These are calculated as exports (X) minus imports (M). Mathematically, this is expressed as NX = X – M. Exports are goods and services produced in the domestic (or home) country for consumption in another country. Imports are goods and services produced in another country for consumption in the home country. Imports are subtracted so goods produced elsewhere are not counted as part of GDP. So, when you buy an imported pair of shoes, the value of the shoes is counted as part of consumption (C); subtracting the value as an import (M) ensures that only domestically produced goods and services are counted as GDP. For example, in 2012 exports totaled $2,185 billion, while imports totaled $2,719 billion. So, net exports ($2,185 billion – $2,719 billion) equaled –$534 billion. Because this number was negative, in terms of GDP, net exports represented –3.3 percent of total spending on domestic output in 2012.[1]

These components can be arranged into a formula that can be used to calculate changes in GDP, with "GDP" on one side of the equal sign and the variables added together on the other side of the equation. To be clear, this is nominal GDP—it is not adjusted for inflation. The formula is as follows:

$$\text{GDP} = \text{C} + \text{I} + \text{G} + \text{(NX)}.$$

Remember that an equation includes two statements that are equal, so a change on one side must be reflected by a change on the other side. Therefore, a change to any of the variables on the right side of the equation (C, I, G, or NX) must be reflected by an equal change on the left side (GDP).

For each of the following spending decisions, explain how the affected variable (C, I, G, or NX) would change (increase or decrease in terms of dollars), and how the change in spending would affect the level of total GDP (increase or decrease in terms of dollars).

1. The federal government decides to invest $1 billion in the nation's interstate highway system.

2. Widgets Incorporated spends $15 million to expand a factory and buy new tools and equipment for its workers.

3. Consumers cut spending by $20 billion.

4. The state government cuts planned highway spending by $30 million to maintain a balanced budget.

5. Changing currency values cause consumer spending on imports to increase by $300 million.

6. A recession results in job losses. As a result, government spending on unemployment benefits increases by $10 billion.

Common Core State Standards

Grades 6-12 Literacy in History/Social Studies and Technical Subjects

- **Key Ideas and Details**

    RH.11-12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

    RH.11-12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- **Craft and Structure**

    RH.11-12.4: Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).