

# Do Imports Subtract from GDP? Teaching the GDP Expenditures Equation

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## The Standard Textbook Approach is Misleading

$$\text{GDP} = C + I + G + N_x$$
$$\text{GDP} = C + I + G + (X - M)$$

The rational reader assumes: because imports are subtracted, the result is a decrease in GDP.

Example: I purchased an imported car for \$30,000.

$$\text{GDP} = C + I + G + (X - \$30,000)$$

**Conclusion: GDP is reduced by \$30,000**

**But if GDP measures domestic production, purchasing an import should not reduce GDP.**

**Textbooks often don't provide enough detail to guide students to a correct understanding.**

**Example:**

“Note that U.S. imports contribute to the GDP of other nations—the locations where that value was produced—and we don't want them to count twice; thus in GDP for the United States, we include U.S. exports but subtract U.S. imports.” (Tabarrok and Cowen, 3<sup>rd</sup> ed., p.499-500)

## Three Teaching Recommendations

**1. Decouple  $N_x$  so students see the variables as independent of each other. Use  $(X - M)$ .**

**2. Teach “-M” as an Accounting Strategy Rather Than an Expenditure Variable**  
Subtracting imports (-M) is a corrective accounting measure since the value has already been added to one of the other domestic variables (C, I, or G).

Example: I purchased an imported car for \$30,000 (added as “C” at purchase, subtracted as “M” for accounting):

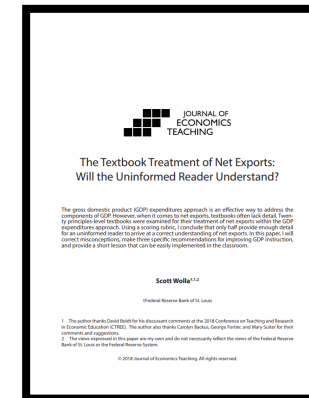
$$\text{GDP} = \$30,000 + I + G + (X - \$30,000)$$

**Conclusion: Import has no impact on GDP**

**3. Introduce a Globalized Approach**  
Production of “domestic” goods often includes imported parts. So, a \$30,000 domestically produced car that includes \$15,000 in imported parts, increases GDP by \$15,000. Using this nuanced approach can help students better understand how “global” products contribute to GDP.

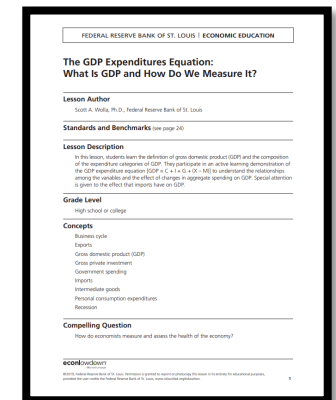
## More Information

The Textbook Treatment of Net Exports: Will the Uninformed Reader Understand? *Journal of Economics Teaching*



## Active Learning Guide

The GDP Expenditures Equation: What Is GDP and How Do We Measure It?



<https://www.stlouisfed.org/education/gdp-expenditures-equation>



**Classroom-friendly Article**  
How Do Imports Affect GDP?  
(Page One Economics)

<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/imports-gdp>