An Overview of CBO’s Role in Assessing Climate Change

Presentation to the Macroeconomic Group
The Australian Treasury

Joseph Kile
Microeconomic Studies Division

For more information about the host, see https://treasury.gov.au/.
CBO’s Role

CBO was established to give the Congress a stronger role in budget matters.

The agency provides analysis of budgetary and economic issues that is objective and impartial. It is strictly nonpartisan and does not make policy recommendations.

CBO follows processes that are specified in statute or that it has developed in concert with the budget committees and Congressional leadership. CBO’s chief responsibility under the Budget Act is to help the budget committees with the matters under their jurisdiction.
Budgetary Effects of Climate Change and Efforts to Address It

Climate change results in physical effects that reduce economic output.

Potential consequences exist for revenues, mandatory spending, and discretionary spending.

Adaptation and mitigation could reduce physical and budgetary effects.

Effects of Climate Change
Estimates of Hurricane Damage

The cost of hurricane damage is expected to increase more than the economy will grow.

Expected annual damage in 2016 was 0.16 percent of gross domestic product (GDP).

Expected annual damage in 2075 is 0.22 percent of GDP.
How Climate Change Is Expected to Change the Level of Real Gross Domestic Product in 2050

Climate change will reduce the growth rate of real (inflation-adjusted) GDP from 2020 to 2050 by an average of 0.03 percentage points. That difference in annual growth accumulates to a 1.0 percent reduction in the projected level of real GDP in 2050.

Climate change will have effects on people’s well-being that are not measured in GDP.
How Wildfires Affect the Federal Budget

Spending on Wildfire Suppression by the U.S. Forest Service and Department of the Interior

Billions of 2020 Dollars

Wildfires affect the federal budget through spending on fire suppression, forest management, disaster assistance, and other activities.

The 5-year moving average for federal spending on wildfire suppression has tripled in recent years.

Climate change has created hotter and drier conditions that are conducive to longer and more severe wildfire seasons.

Effects of Policies That Would Address Climate Change
### How a Tax on Greenhouse Gas Emissions Would Affect the Federal Budget

<table>
<thead>
<tr>
<th>Bilions of Dollars</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
<th>2032</th>
<th>Total 2023–2027</th>
<th>Total 2023–2032</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease (-) in the Deficit</td>
<td></td>
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<tr>
<td>Apply a $25 tax per metric ton of emissions and increase tax annually by 5 percent, adjusted for inflation</td>
<td>-55.2</td>
<td>-86.2</td>
<td>-83.5</td>
<td>-82.4</td>
<td>-81.8</td>
<td>-81.3</td>
<td>-87.3</td>
<td>-95.4</td>
<td>-102.9</td>
<td>-109.5</td>
<td>-389.0</td>
<td>-865.4</td>
</tr>
<tr>
<td>Apply a $25 tax per metric ton of emissions and increase tax annually by 2 percent, adjusted for inflation</td>
<td>-55.2</td>
<td>-84.7</td>
<td>-80.4</td>
<td>-77.3</td>
<td>-74.9</td>
<td>-72.2</td>
<td>-75.0</td>
<td>-79.6</td>
<td>-83.4</td>
<td>-86.2</td>
<td>-372.5</td>
<td>-768.9</td>
</tr>
<tr>
<td>Apply a $25 tax per metric ton of emissions (excluding gasoline) and increase tax annually by 2 percent, adjusted for inflation</td>
<td>-43.3</td>
<td>-65.9</td>
<td>-61.0</td>
<td>-57.4</td>
<td>-54.6</td>
<td>-51.6</td>
<td>-54.0</td>
<td>-58.1</td>
<td>-61.5</td>
<td>-63.7</td>
<td>-282.1</td>
<td>-570.9</td>
</tr>
</tbody>
</table>

Data sources: Staff of the Joint Committee on Taxation; Congressional Budget Office.

This option would take effect in January 2023.

An offset to reflect reduced income and payroll taxes has been applied to the estimates in this table.
Projected Carbon Dioxide Emissions From the Electric Power Sector Before and After the 2022 Reconciliation Act

Billions of Metric Tons

Energy Information Administration (Before the 2022 reconciliation act)

National Renewable Energy Laboratory (Before the 2022 reconciliation act)