Fiscal Challenge 2020

Team 146
Presentation Overview

The Tenuous Status Quo

Restructuring the Economy toward Equity and Sustainability

  Sustainable Development

  Universal Healthcare

  Higher Education Affordability

Conclusion
Federal Debt Held by the Public

CBO 2019

CBO 2020
Why is the Debt Growing?

- Insufficient Revenue

Source: Congressional Budget Office, 2019
Why is the Debt Growing?

- Healthcare costs
Why is the Debt Growing?

- Healthcare costs
  - Aging population
  - Decreasing number of workers per social security retiree
Problems & Solutions

- Healthcare costs
- Effects of climate change
- Higher education costs
- Universal Healthcare
- Sustainable Development
- Improving College Completion

Unfunded government obligations account for 36% of GDP in 2050
Goal: reduce debt-to-GDP ratio to approximately 40% in 2050
The Sustainable Development Plan
Why the Sustainable Development Plan?

• The cost of inaction is unacceptable. Economists estimate that if we do not take action, we will lose $34.5 trillion in economic activity by the end of the century.
The Sustainable Development Plan

• Proposal:

The United States Federal Government should carry out a “10-year Sustainable Development Plan” to reduce carbon emissions in the United States.
Key Points of the Sustainable Development Plan

• A new carbon tax of $60 per ton of emissions, rising by inflation plus five percent through 2050.
• Converting the entire U.S. power grid to 100 percent renewable energy in the next 10 years.
• Save American families money with investments in weatherization, public transportation, modern infrastructure and high-speed broadband.
Details about Carbon Tax

The carbon tax is applied to transportation, construction, manufacturing, power generation, and any other productive process that creates carbon emissions. The carbon tax affects the price by increasing the cost for goods and services depending on the amount of carbon used. A good or service that generates larger carbon emissions leads to higher taxes, which are reflected in higher prices for those carbon-intensive goods and services.
Economic Effects

An increase in the carbon tax makes consumption more expensive relative to savings; households will respond by lowering consumption. The additional revenue reduces government debt, which increases investment and productive capital.

Higher capital increases wages. Higher wages have two offsetting effects: a price effect (higher wages lead to more work) and an income effect (higher wealth induces households to work less); the former effect dominates, results in an increase in GDP in 2050.

Detailed calculation follows Penn Wharton Budget Model.
Is it Possible? Yes!

The naysayers argue we'll continue to need nuclear power, and need to replace coal with natural gas plants equipped with technology to capture carbon and store or sequester it deep in the earth, which would be too expensive and there is no convincing evidence it's feasible.

But in fact, the real solution is the 100% wind and solar power — in conjunction with energy efficiency, energy storage and other advances to complement renewables — could provide electricity to the continental U.S. more reliably and at lower projected costs.

Future Goal: universal 100% renewable energy.
Why it is popular?

• **Ending unemployment by creating 20 million jobs.** These jobs will be good paying, union jobs with strong benefits and safety standards in the solar energy industry and the wind energy industry.

• **Saving American families money** by lowering energy bills and improving public health.

• **Making massive investments in research and development.** We will invest in public research to drastically reduce the cost of energy storage, electric vehicles, and make plastic more sustainable through advanced chemistry.
Funding Mechanism

• This plan will cost approximately 4.5 trillion in the next 10 years.
• However, it will pay for itself over 15 years.
  • The new carbon tax will raise $3.2 trillion of additional revenue on a conventional basis over the 10-year budget window.
  • Generating about $1 trillion revenue from the wholesale of energy produced by the regional Power Marketing Authorities. Revenues will be collected from 2023-2035, and after 2035 electricity will be virtually free, aside from operations and maintenance costs.
  • Collecting new income tax revenue from the 20 million new jobs created by the plan; reduced need for federal and state safety net spending due to the creation of millions of good-paying, unionized jobs.
Overall Economics Effects

Approximately,

• Save $2 trillion over 10 years.

• Save $14 trillion over 30 years.

• Save $47 trillion over 80 years.

• Reduce the national debt by 5.4% over 10 years.

• Reduce the national debt by 23% over 30 years.

• Reduce the debt-to-GDP ratio by 25% over 30 years.
180% → 135%
Single-Payer Healthcare
## Table 1. Effects on Health in 2060

<table>
<thead>
<tr>
<th>Financing Option</th>
<th>Uninsured</th>
<th>Population not Receiving Medical Treatment</th>
<th>Population in the Sickest Health States</th>
<th>Increase in Productivity</th>
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<tbody>
<tr>
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<td>27.1%</td>
<td>12.3%</td>
<td>14.5%</td>
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<tr>
<td>Premium</td>
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<td>0.5%</td>
<td>13.3%</td>
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<tr>
<td>Payroll</td>
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<td>0.7%</td>
<td>13.2%</td>
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</tr>
<tr>
<td>Deficit</td>
<td>0.0%</td>
<td>0.6%</td>
<td>13.3%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

*Note: The effects of health on productivity are calculated as a percentage change from current law.*
Single-Payer Healthcare

Implementing a single-payer, universal healthcare system will decrease national healthcare expenditure by 13%, or $450 billion annually

Proposal:

Expand Medicare coverage to the entire working-age population, financed by a premium on individuals.

Projected Outcome:

- $180 billion saved from drug price negotiation
- $219 billion saved from administrative overhead
- 68,000 lives saved
Single-Payer Healthcare

Funding Mechanism:

$3$ trillion government expenditure, $773$ billion larger than existing revenue sources (federal, state, premium exemption, private, etc)

Revenue-neutral premium on working age population ($\sim$US$4K$)

Fiscal Implications (in 2050):

- Grow GDP by $9.4\%$
- Decrease debt by $68.2\%$

Political Feasibility:

- Broad public support
- $2020$ presidential election
Improving College Completion

Current Problem:

- Only 61% of first-time students at four-year universities finish their degrees within 8 years.
- Only 21% complete associate’s degrees within four years.
Improving College Completion

Policy

- Raise per-student instructional spending at public institutions by 25%

- Nudges

  Encourage attending institutions with higher completion rate
Improving College Completion

Positive Economic Effect by 2050

- Compared to baseline:
  - Real GDP: $+2.5\%$ ($+755.8 \text{ billion})
  - Employment: $+0.9 \text{ million}$
  - Real median household income: $+2337.6$
Improving College Completion

Funding Mechanism

• Wealth Tax 2021-2030
  • 2% wealth tax above $50 million and 6% wealth tax above $1 billion
  • $2.3 trillion revenue by 2030
  • Macroeconomic effect:
    GDP: -0.7% by 2030 & -0.9% by 2050
Improving College Completion

Debt-to-GDP ratio by 2050
- Policy Expenditure: $0.95 trillion
- Wealth Tax Revenue: $2.3 trillion
- GDP: 2.5% - 0.9% = 1.6%

Political Feasibility
- Bipartisan support for more educated workforce
- Positive externality
40\% \downarrow \rightarrow 36\%
COVID-19 Economic Relief

CARES Act costs $2.3 trillion → sizable deficit increase

Beyond CARES Act:

● Achieves fiscal balance
● Clarifies objectives of monetary policy
● Contingency plan for crises
Budgetary Outlook

- Baseline debt-to-GDP ratio: 180% (CPO 2020)

- Sustainable Development Plan: boost GDP by 2.2%, reduce debt by 23%
- Universal Healthcare: boost GDP by 9.4%, reduce debt by 68.2%
- Improving College Completion: boost GDP by 1.5%, reduce debt by 10%
- Overall: GDP increases by 14.6%, debt decreases by 75.5%
- Projected debt-to-GDP ratio: 36% (exclude unfunded obligations)
References

Budget Situation

The Budget and Economic Outlook: 2019 to 2029

The Budget and Economic Outlook: 2020 to 2030

The Fiscal & Economic Challenge

Is the Number of Workers per Social Security Retiree Declining?

Do Deficits (Still) Matter?
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The Sustainable Development Plan

NASA releases detailed global climate change projections.

Policy Options: A Carbon Tax of $30 per ton.

Benefits of Renewable Energy Use

The Green New Deal.

Shifting U.S. to 100 Percent Renewables Would Cost $4.5 Trillion, Analysis Finds

Is 100% Renewable Energy for the US Possible? Yes
References

Single-Payer Healthcare

Analysis | Here’s that Medicare-for-all study Bernie Sanders keeps bringing up

Medicare for All: Comparison of Financing Options

Improving the prognosis of health care in the USA

Medicare for All: Health, Life, and the Economy
References

Improving College Completion

The Most Cost-Effective Ways to Increase College Graduation Rates

Elizabeth Warren’s Wealth Tax

The Economic Impact of Increasing College Completion

Beyond Tuition