



MORE THAN WORDS: HOW IFIS CAN SUPPORT GREEN BUDGETING

Fourth Annual Conference of the European Fiscal Board

25 February 2022

Scott Cameron and Mark Hadley



Climate action: the talk

International agreements with domestic implementation

Paris agreement

UN Sustainability Development Goals

Convention on Biological Diversity

European Climate Law

Commitments

Strategies

Laws



Encouraging the walk

Challenges the same as fiscal coordination:

Common pool

Free riders

Intertemporal illusion

Political competition and short time horizons

Take a page from the fiscal rulebook:

Medium-term objectives in line with long-run sustainability

Minimum reporting and transparency requirements

Independent monitoring bodies



Encouraging the walk

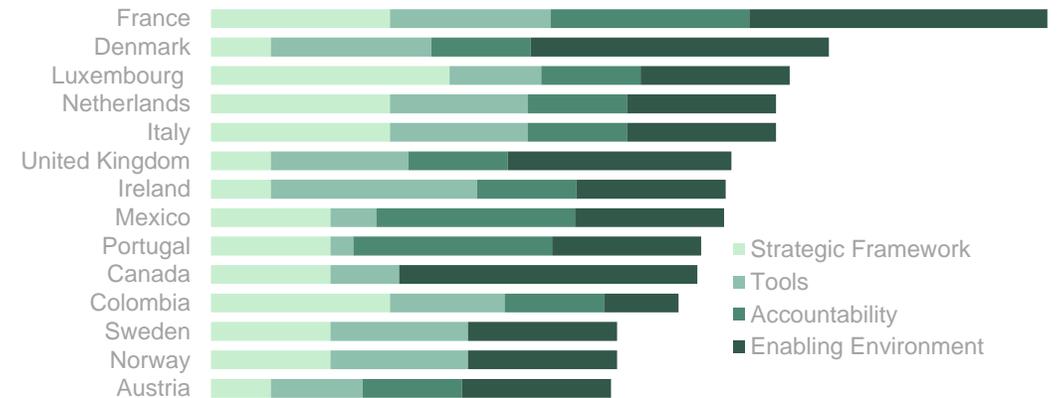
Legally binding carbon budgets

- Economy-wide
- By industry
- Public sector

Green budgeting procedural shifts

- Green disclosure requirements
- Environmental policy appraisal and evaluation
- Climate-sensitive economic and fiscal forecasting in budget plans
- Green tax reforms and spending reviews

OECD composite indicator





Who is an appropriate monitoring body?



Atmospheric scientists



Climate councils

Climate action requires a **Big Pivot** across government

Championed by the center

In every aspect of budgeting and public finance

This is the domain of IFIs.



At the OECD: research and network activities

Supporting green budgeting

Paris Collaborative on Green Budgeting

IFI and Climate Working Group

Identifying possible roles for IFIs

Case studies of institutions supporting green budgeting

Developing best practices



Identifying potential areas and activities

20 activities

Grouped into

Four areas

A starting point for discussion



Monitoring compliance with green budgeting initiatives	•
Verifying compliance with green reporting and disclosure requirements	•
Verifying that budget plans are consistent with achieving climate, greenhouse gas and ecological targets <i>ex ante</i>	•
Assessing leakage—the 'export' of carbon-intensive production to other countries to achieve domestic emissions targets	•
Verifying that financial outcomes were consistent with green investment targets <i>ex post</i>	•
Scrutinising and providing opinions on the reasonableness of domestic and global policy and emissions baselines for budget plans	•
Scrutinising macroeconomic and fiscal planning assumptions and providing opinions on the risks that climate change and ecosystem losses pose to the outlook	•
Providing alternative macroeconomic forecasts, scenarios and other planning assumptions that incorporate green considerations	•
Providing long-term fiscal sustainability analysis that incorporates climate change and ecosystem considerations	•
Scrutinising the reasonableness and comprehensiveness of the government's cost estimates	•
Assessing the financial cost of green initiatives	•
Assessing environmental externalities in all cost estimates	•
Assessing the direct distributional and social consequences of green initiatives	•
Providing cost-benefit analysis (net benefits and value-for-money) of climate change action and green projects	•
Modelling and monitoring carbon pricing programs such as trading schemes and carbon taxation and assessing the impact of green policies on energy markets	•
Drafting briefing notes on topics related to the economic and fiscal implications of climate change and ecosystem loss	•
Assessing the effect of climate change on the economy	•
Assessing the effect of economic activity in the private and public sector on climate change	•

1

2

3

4



Classifying roles

Level 1

Due diligence under current mandate

Generalist economists, existing resources

Little overlap with others

Current modelling capacity, new toy models

Level 2

Should have a clear mandate steer

Require specialist skills, new resources

May overlap with others

Major investments in sophisticated new tools

Out of scope:

Accreditation, physical sciences outcomes and effectiveness.



Area 1: Monitoring green budget practices

Verifying compliance with green disclosure requirements Level 1

Verifying financial outcomes are consistent with green investment targets Level 1

Assessing “leakage” in achieving domestic targets Level 2



Austria (PBO) – Verifying green disclosure

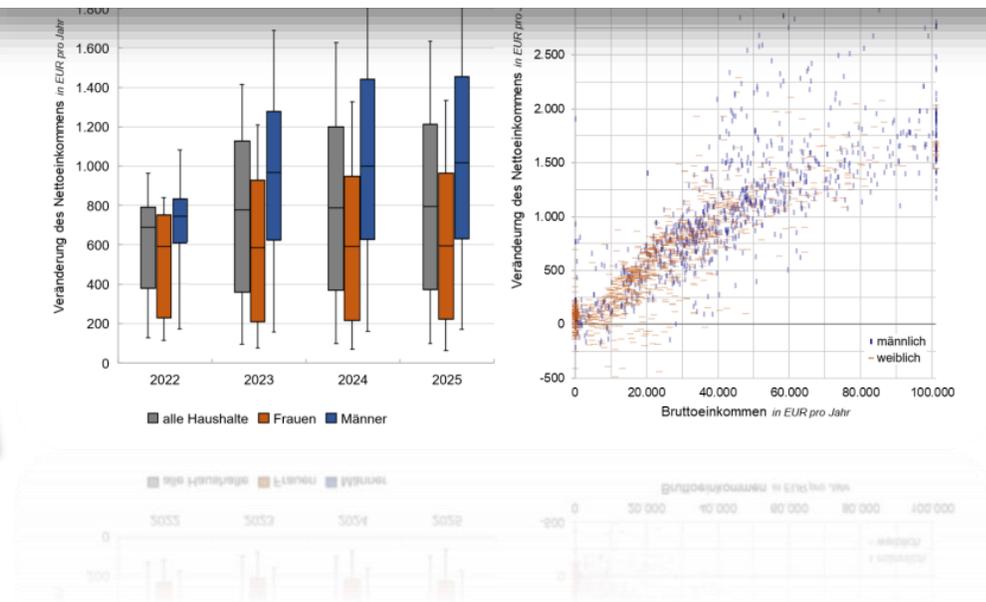
Eco-social tax reform 2022 – Analysis of the Austrian PBO



9 Transparency of Legislative Materials and control implementation

Environmental dimension

The WFA contains an assessment of the reduction in greenhouse gas emissions based on a study by the Federal Environment Agency. Here, too, the inclusion of external expertise is to be welcomed, but the corresponding study was not published. The comprehensibility of the explanations in the WFA remains limited, because there only very highly aggregated data for 2025 but no calculation bases and milestones



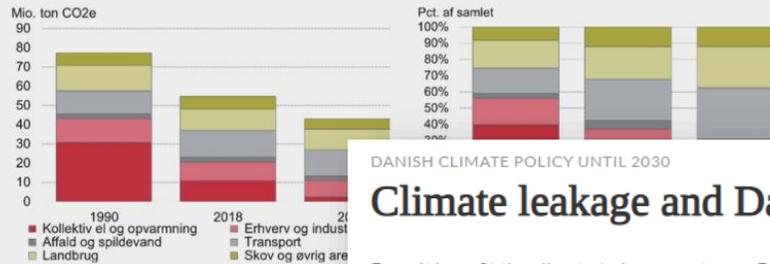


Denmark (DEC) – Assessing emissions leakage



FIGURE I.2 DISTRIBUTION OF THE GREENHOUSE GAS EMISSIONS BETWEEN SECTORS

Emissions fall mainly in electricity and heating, while emissions from transport increase both measured in tonnes (left figure) and as a share of total emissions (right figure). Agriculture will account for an increasing share of emissions by 2030.



Note: Projection for 2030 is based on a frozen policy scenario. Source: The basic projection 2020, the Danish Energy Agency.

DANISH CLIMATE POLICY UNTIL 2030

Climate leakage and Danish agriculture

Does it benefit the climate to impose a tax on Danish companies' greenhouse gas emissions? If production and emissions just move abroad, the climate is just as wide, right?

We shed light on this question in our report on Danish climate policy, which was published a few months ago. Our calculations show that foreign emissions increase corresponding to around 20 per cent. of the Danish reduction. This "leak" is calculated by a uniform fee of DKK 1,200 per tonne of CO₂e, which according to our calculations is the cheapest way to achieve the 2030 target of the Climate Act. The calculated leakage means that despite major emissions abroad, there is a real effect on the climate of a Danish tax on all greenhouse gases. This also applies to a competitive sector such as agriculture, where the problem of relocation of production and emissions is particularly great. Here, a tax will mean that foreign emissions increase by the equivalent of 35 per cent. of the reduction in Danish agriculture - ie a leakage rate of 35 per cent.

By the Presidency of the Economic Councils: Carl-Johan Dalgaard, Nabanita Datta Gupta, Lars Gårn Hansen and Jakob Roland Munch

Jyllandsposten, 9 July 2021

WRITTEN IN RELATION TO:
Economy and Environment 2020: [Chapter I: Danish climate policy towards 2030](#)



Area 2: Forecasting and scenario analysis

Advising on appropriate policy baselines	Level 1
Identifying climate risks to the budget outlook	Level 1
Climate-sensitive forecasting and scenario analysis	Level 2
Providing long-term fiscal sustainability analysis that incorporates climate change	Level 2



UK (OBR) – Assessing risks and long-term projections



Chart 5: Early action scenario: impact on public sector net debt

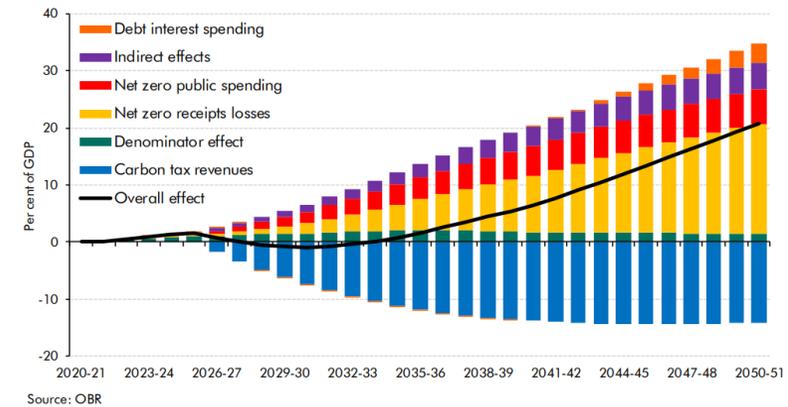
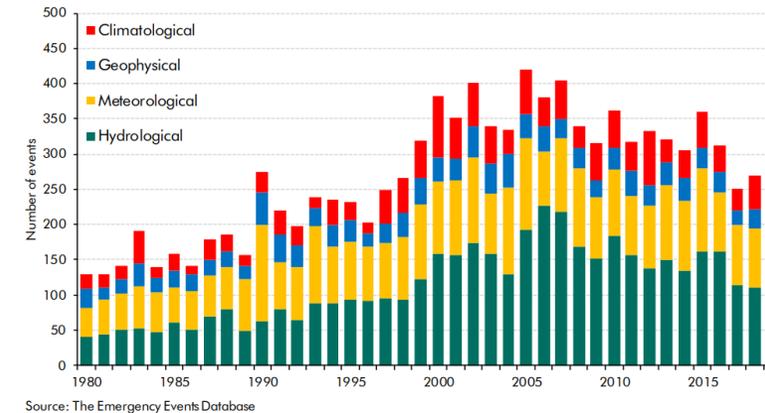


Chart 1: Incidence of major risk events





Area 3: Costing and programme evaluation

Scrutinising reasonableness of official cost estimates	Level 1
Assessing the financial costs of green policies, pricing externalities in all cost estimates	Level 1
Assessing the distributional and macroeconomic consequences of green initiatives	Level 2
Assessing the impact of carbon pricing on energy markets	Level 2



Australia (PBO) – Electrifying government fleet



Policy costing

Revenue implications of setting mandatory Government fleet electric vehicle purchasing targets

Person/party requesting the costing:	Senator Tim Storer, Senator for South Australia, on behalf of the Senate Select Committee on Electric Vehicles
Date costing completed:	11 January 2019
Expiry date of the costing:	Release of the next economic and fiscal outlook report.
Status at time of request:	Submitted outside the caretaker period <input checked="" type="checkbox"/> Confidential <input type="checkbox"/> Not confidential

Summary of proposal:

This proposal contains six options to set mandatory electric vehicle purchasing and leasing targets for new vehicles added to the Australian Government vehicle fleet. The options are as follows:

- Option 1: set a target of 30 per cent of new vehicles in the Australian Government vehicle fleet by 2025.
- Option 2: set a target of 40 per cent of new vehicles in the Australian Government vehicle fleet by 2025.
- Option 3: set a target of 50 per cent of new vehicles in the Australian Government vehicle fleet by 2025.
- Option 4: set a target of 30 per cent of new vehicles in the Australian Government vehicle fleet by 2030.
- Option 5: set a target of 40 per cent of new vehicles in the Australian Government vehicle fleet by 2030.
- Option 6: set a target of 50 per cent of new vehicles in the Australian Government vehicle fleet by 2030.

Electric vehicles are defined as battery electric vehicles, plug-in hybrid electric vehicles and fuel-cell electric vehicles. Each electric vehicle added to the Government fleet would have dedicated charging infrastructure provided for it.

The Government fleet does not include vehicles acquired by Government employees under salary sacrifice novated lease arrangements.

The proposal would have a start date of 1 July 2019.

	2018–19	2019–20	2020–21	2021–22	Total to 2021–22
Option 1 – Set a target of 30 per cent of new vehicles in the Australian Government vehicle fleet by 2025					
Fiscal balance	-	-0.3	-0.9	-1.8	-3.0
Underlying cash balance	-	-0.3	-0.9	-1.8	-3.0
Option 2 – Set a target of 40 per cent of new vehicles in the Australian Government vehicle fleet by 2025					
Fiscal balance	-	-0.4	-1.2	-2.4	-4.0
Underlying cash balance	-	-0.4	-1.2	-2.4	-4.0
Option 3 – Set a target of 50 per cent of new vehicles in the Australian Government vehicle fleet by 2025					
Fiscal balance	-	-0.5	-1.5	-3.0	-5.0
Underlying cash balance	-	-0.5	-1.5	-3.0	-5.0
Option 4 – Set a target of 30 per cent of new vehicles in the Australian Government vehicle fleet by 2030					
Fiscal balance	-	-0.2	-0.5	-1.0	-1.6
Underlying cash balance	-	-0.2	-0.5	-1.0	-1.6
Option 5 – Set a target of 40 per cent of new vehicles in the Australian Government vehicle fleet by 2030					
Fiscal balance	-	-0.2	-0.7	-1.3	-2.2
Underlying cash balance	-	-0.2	-0.7	-1.3	-2.2
Option 6 – Set a target of 50 per cent of new vehicles in the Australian Government vehicle fleet by 2030					
Fiscal balance	-	-0.3	-0.8	-1.6	-2.7
Underlying cash balance	-	-0.3	-0.8	-1.6	-2.7

(a) A positive number represents an increase in the relevant budget balance; a negative number represents a decrease.

(b) Figures may not sum to totals due to rounding.

- Indicates nil.



Belgium (FBR) – Recovery & resilience assessment

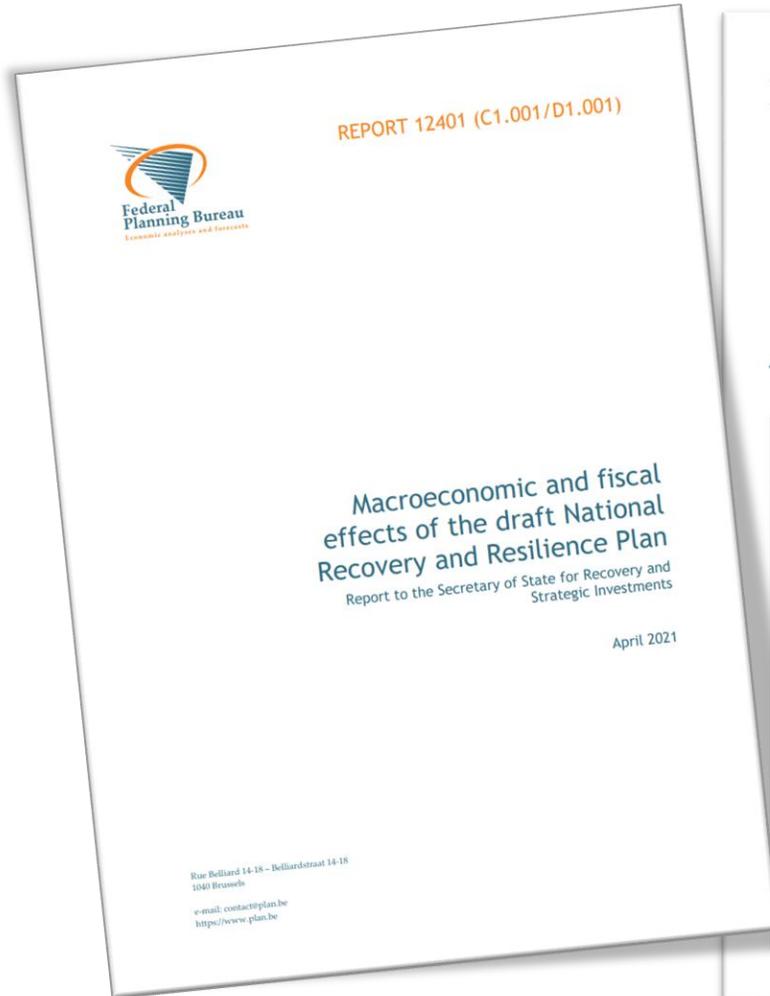


Table 0 Long-term macroeconomic effects
Differences in % (unless otherwise indicated) from the baseline scenario

	2026	2030	2035	2040
GDP (real)	0.23	0.22	0.18	0.14
Private consumption	0.09	0.10	0.08	0.07
Public consumption	0.19	0.16	0.13	0.11
Business investment, excluding R&D	0.12	0.15	0.13	0.12
Business investment, R&D	0.12	0.06	0.04	0.03
Public investment	1.82	0.16	0.13	0.11
Exports	0.14	0.15	0.12	0.09
Imports	-0.02	-0.06	-0.04	-0.03
GDP deflator	-0.12	-0.13	-0.11	-0.09
Real wage	0.15	0.15	0.12	0.10
Labour productivity	0.19	0.18	0.15	0.12
Employment rate	0.04	0.04	0.03	0.02
Government debt ratio (pp)	-0.52	-0.61	-0.76	-0.95

Figure 2 Changes in capital stocks
Index 2020=1

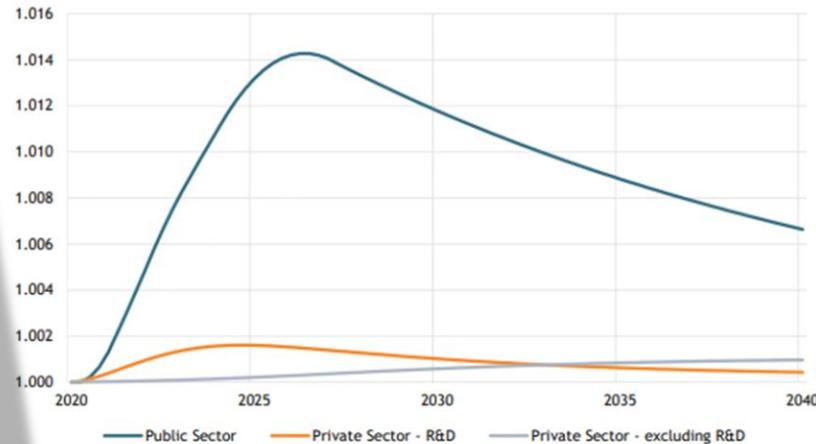
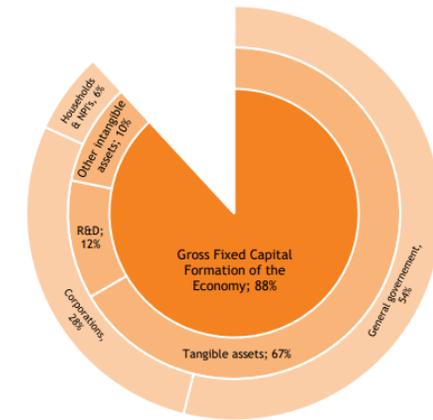


Figure 1 Share of RRP allocated to increasing the capital stock of the economy
As a % of total RRP expenditure over the 2021-2026 period





Area 4: General research and circular green economy

Drafting briefing notes on climate and environmental topics

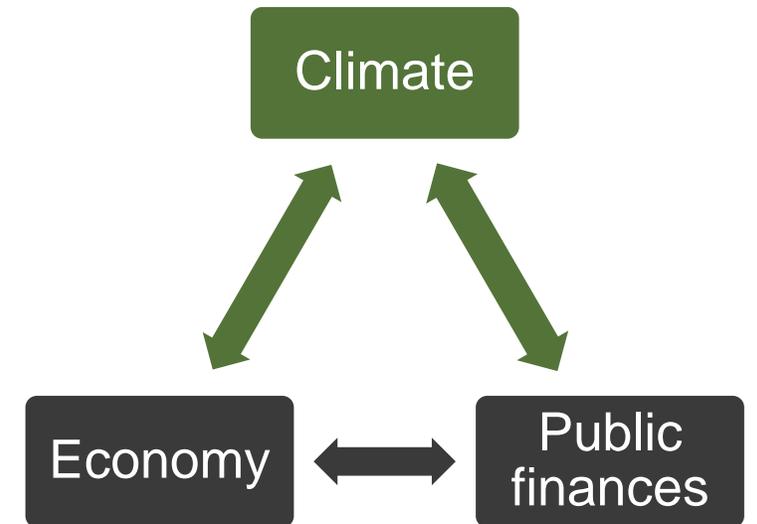
Assessing the impact of climate change directly on public finances

Assessing the impact of climate change on the economy (and vice versa)

Level 1

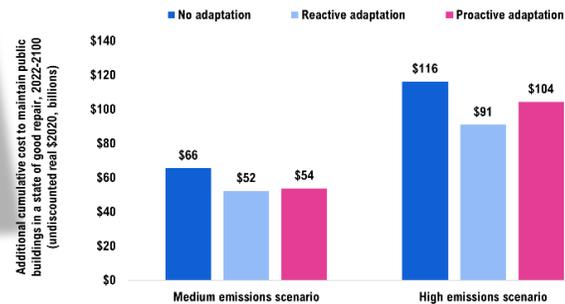
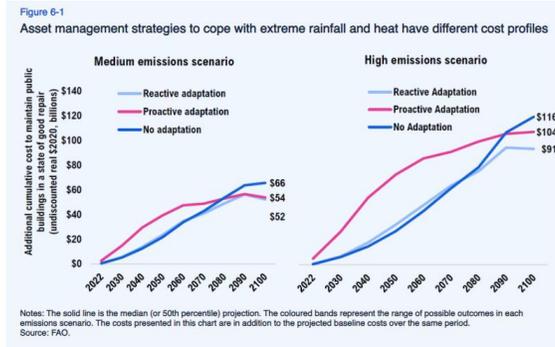
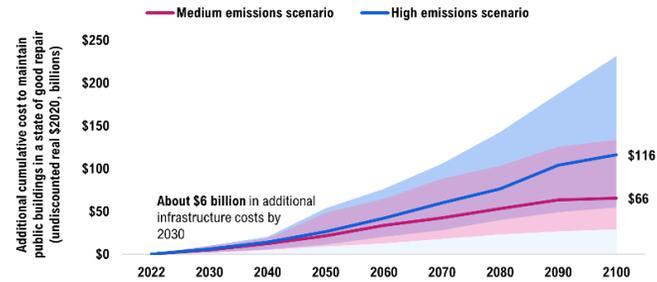
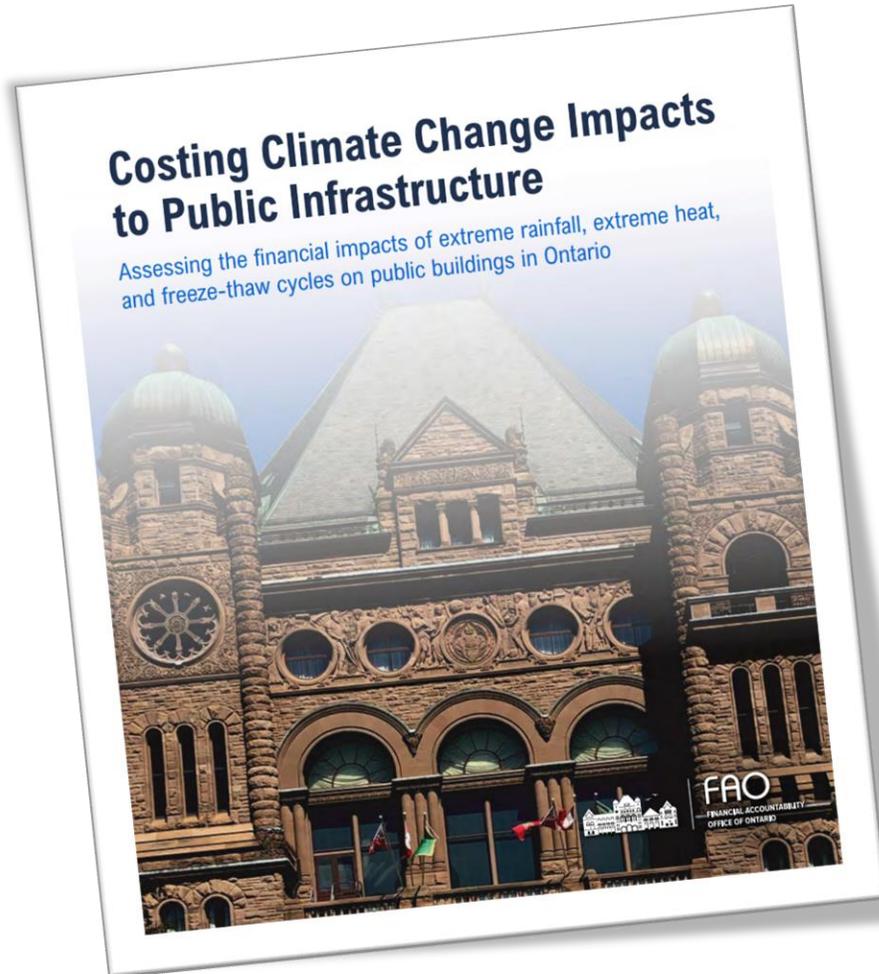
Level 1

Level 2





Canada (FAO) – Climate & public infrastructure





U.S. (CBO) – Channels of climate change to economy

Working Paper Series
Congressional Budget Office
Washington, D.C.

CBO's Projection of the Effect of Climate Change on U.S. Economic Output

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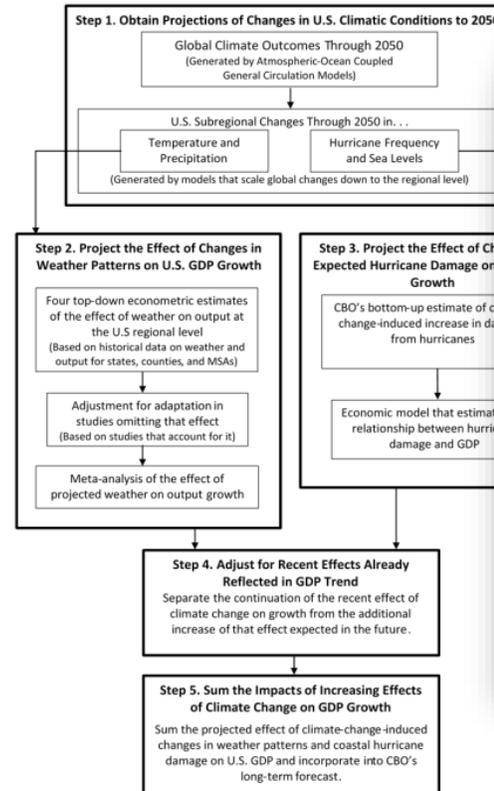
Working Paper 2020-06

September 2020

To enhance the transparency of the work of the Congressional Budget Office and to encourage external review of that work, CBO's working paper series includes papers that provide technical descriptions of official CBO analyses as well as papers that represent independent research by CBO analysts. Papers in this series are available at <http://go.usa.gov/xUzd7>.

This work benefited from the guidance of Joseph Kile. Christine Browne was the editor. Mark Doms and Jeffrey Kling reviewed the document. Helpful comments were provided by Sebastien Gay, John Kitchen, John McClelland, Robert Shackleton, and Jeffrey Werling of CBO. Pranav Bhandarkar provided excellent research assistance. Useful input was also received from Tatyana Deryugina of the University of Illinois, Trevor Hauser of the Rhodium Group, Solomon Hsiang of the University of California-Berkeley, Derek Lemoine of the University of Arizona, Pierre Mérel of the University of California-Davis, Kamiar Mohaddes of the University of Cambridge, John Reilly of the Massachusetts Institute of Technology, James Stock of Harvard University, and David Wilcox of the Peterson Institute for International Economics.

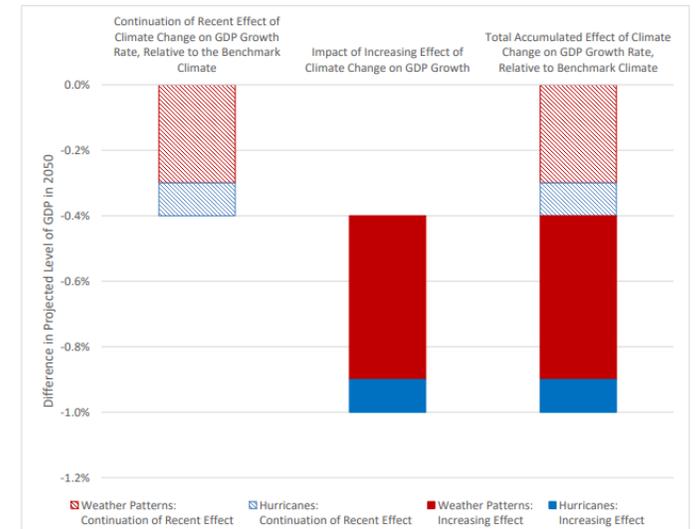
Figure 2. Flow of the Model for Projecting the Effect of Climate Change on U.S. GDP Growth



Source: Congressional Budget Office.

GDP = gross domestic product; MSA = metropolitan statistical area.

Figure 1. How Climate Change Is Expected to Change the Level of Real GDP in 2050 Percentage of Real GDP





Some observations

Early days. Few formal mandates. Waiting on governments to codify.

Some taking own initiative, but uncommon.

Some recruiting for environmental specialists in social science, most repurposing economic generalists on an ad hoc basis.

Resources for green analysis typically not provided, tracked or managed separately (CPB Netherlands an exception).

A chance for everyone to be at the forefront



How the OECD will be taking this forward

Questions to answer as a research community

Surveys on activities and approaches

Backgrounders on methods

Best practices

Reviews and recommendations



Some questions

How should independent bodies coordinate analysis domestically and internationally?

How can hard-won reputations on core financial mandates be protected while expanding into green analysis?

Where are the boundaries of IFI scrutiny and reporting?