

# The economics of a green recovery

Ethelo eDemocracy Webinar Series

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**Keynesian stimulus: Dig hole, fill it in\***

**Green stimulus: Dig hole, plant tree, fill it in**

\*With apologies to Keynes and with thanks to Prof Sam Fankhauser

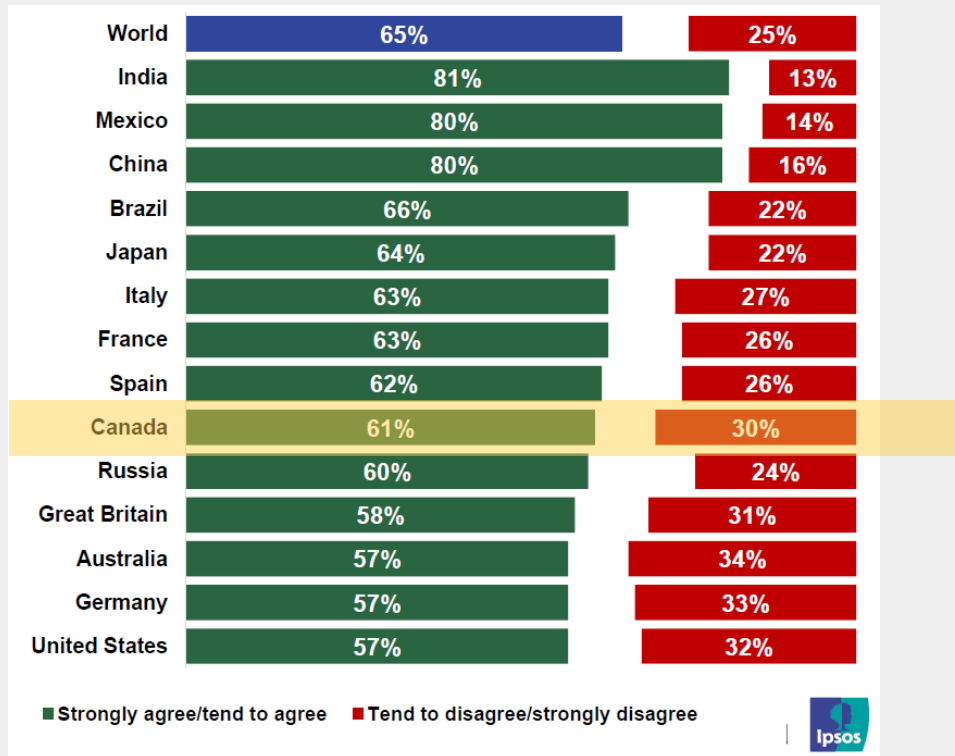


# Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?

**Cameron Hepburn, Brian O'Callaghan, Nicholas Stern, Joseph Stiglitz and Dimitri Zenghelis**

Forthcoming in the *Oxford Review of Economic Policy* 36(S1)

## Majorities in favour of green recovery

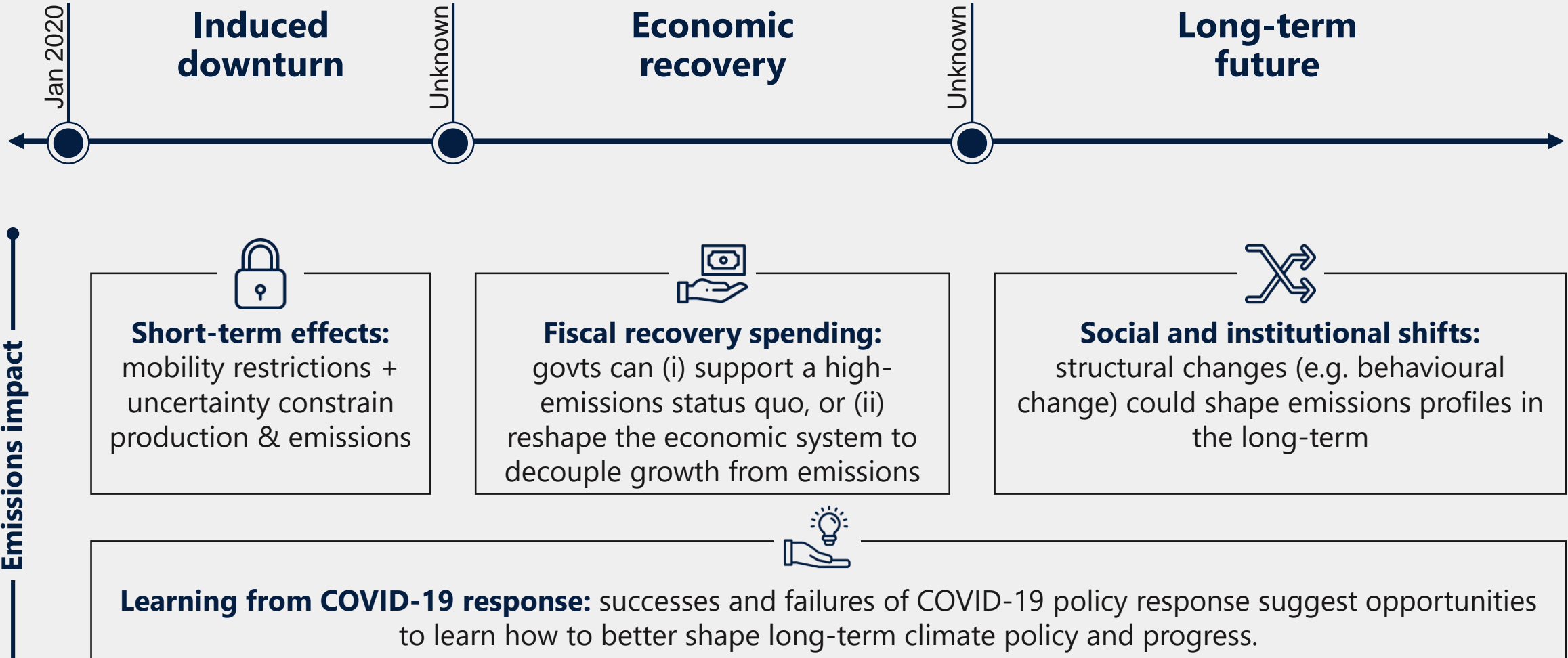


Source: Ipsos Global Advisor, April 2020

- **Covered by 600+ outlets** including *Reuters, Bloomberg, Forbes, New York Times, BBC, Telegraph, Guardian, India Today, La Repubblica, O Globo, Global Canada, Sydney Morning Herald.*
- **Government interest:** e.g. IMF, UN, OECD, TWO, World Bank, AfDB, Apolitical, National governments (UK, Germany, China, Australia, New Zealand, Canada), COP26 team, social media posts from ex Prime Minister of Australia, New York City's Mayor's Office.
- **Business interest:** Sarasin, Pictet, IIGCC, Ambrosetti, various business associations

1. Short: impacts of COVID-19 on emissions
2. Medium: potential impacts from recovery packages
3. Long: possible behavioural and institutional change
4. Summary

# The COVID-19 crisis has impacted global emissions, but long-term effects could be far greater



Emissions impact

**Short-term effects:**  
mobility restrictions +  
uncertainty constrain  
production & emissions

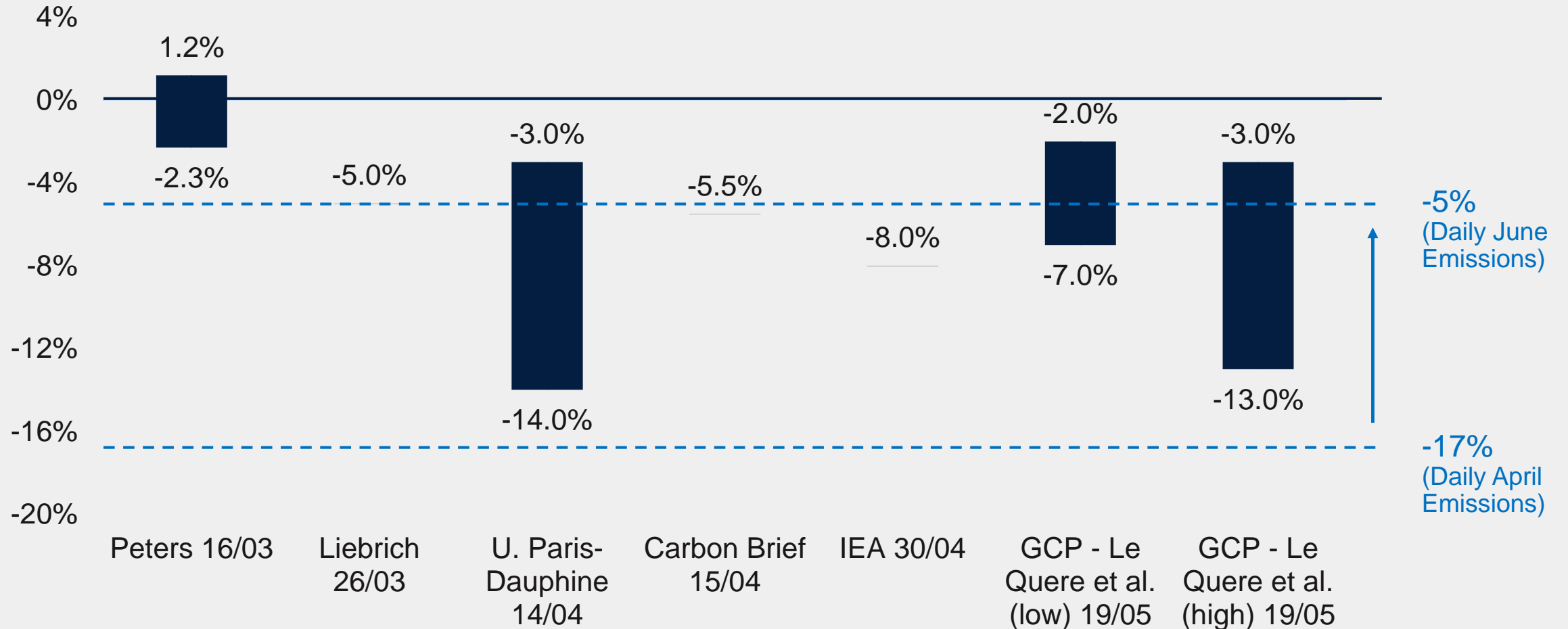
**Fiscal recovery spending:**  
govts can (i) support a high-  
emissions status quo, or (ii)  
reshape the economic system to  
decouple growth from emissions

**Social and institutional shifts:**  
structural changes (e.g. behavioural  
change) could shape emissions profiles in  
the long-term

**Learning from COVID-19 response:** successes and failures of COVID-19 policy response suggest opportunities to learn how to better shape long-term climate policy and progress.

# Emissions dropped quickly with mobility restrictions, but the rebound is likely to be strong

## Expected year on year change in global emissions (2020/2019)



Notes: Figure adapted from Carbon Brief Webinar (May 21<sup>st</sup> 2020). Daily emissions from Le Quere et al. (2020).

# This is the pace of change required for 1.5°C

- Global GHG emissions must fall by **7.6%** *every year* from 2020 to 2030 to keep temperature increases to less than 1.5°C (UNEP [2019](#)).
- Every year that GHG emissions are not zero, atmospheric GHG concentrations continue to build, increasing the risk that even incremental increases could trigger feedback loops that result in outsized and permanent damage to the climate (Farmer et al. [2019](#)).



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# How could COVID-19 fiscal recovery packages accelerate progress on climate change?



Reviewed **+400 stimulus policies** from 2009 Global Financial Crisis



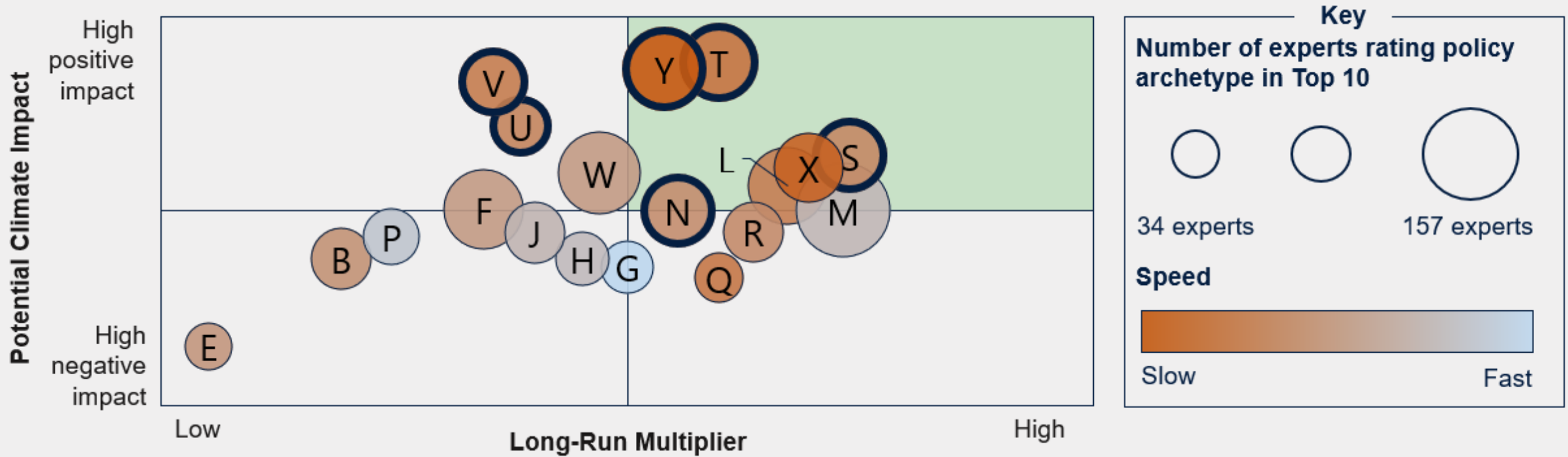
Surveyed **+230 leading economists** (covering all G20 countries) for views on multipliers, speed, climate desirability



Analysed past **green policy studies** (both public and private)



# Global survey identifies policies that are seen to perform well on both economic and climate metrics



## Policy archetypes

B Assisted bankruptcy (super Chapter 11)	M Healthcare investment	T Clean energy infrastructure investment
E Airline bailouts	N Worker retraining	U Buildings upgrades (energy efficiency)
F NFP, education, research, health bailouts	P Rural support policies	V Green spaces, natural infra investment
G Reduction in goods & services taxes	Q Traditional transport infra investment	W Disaster preparedness, capacity building
H Income tax cuts	R Project-based local infrastructure grants	X General R&D spending
J Business tax relief for strategic adj.	S Connectivity infrastructure investment	Y Clean R&D spending
L Education investment		

# Three key findings



**Recovery policies can deliver both climate and economic goals – five in particular**

1. Clean physical infrastructure investment
2. Building efficiency spending
3. Education and training investment
4. Natural capital investment
5. Clean R&D spending



**There are significant co-benefits**, including social, environmental, health and political benefits



**Policy design is important** – success/failure can be determined by details (eg flexibility, social distancing)

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# Behavioural change

- Adaptive behaviours and habit discontinuities
- Some shifts will be permanent

# Institutional change

- Shifts in international institutions
- Changes to geopolitics

# What can we learn from COVID-19 for the future of climate change mitigation?



## Global “public bads” with non-linear growth dynamics

- Some form of exclusion possible for infectious disease
- Climate change evolves over longer time scales



## Societal consensus required

- Policy action constrained by public opinion and polarization



We discern **common policy challenges** and draw five lessons for climate policy

# Five lessons for climate policy

1

**Delay** is costly

Create institutions for long-termism

2

**Perceived threat** shapes support

Match perceptions to facts and analysis

3

**Inequalities** may be exacerbated

Address distributive concerns

4

**Collaborate** for better outcomes

Support losers & bi-partisan solutions

5

**Policy advice** is not value free

Inoculate citizens against misinformation



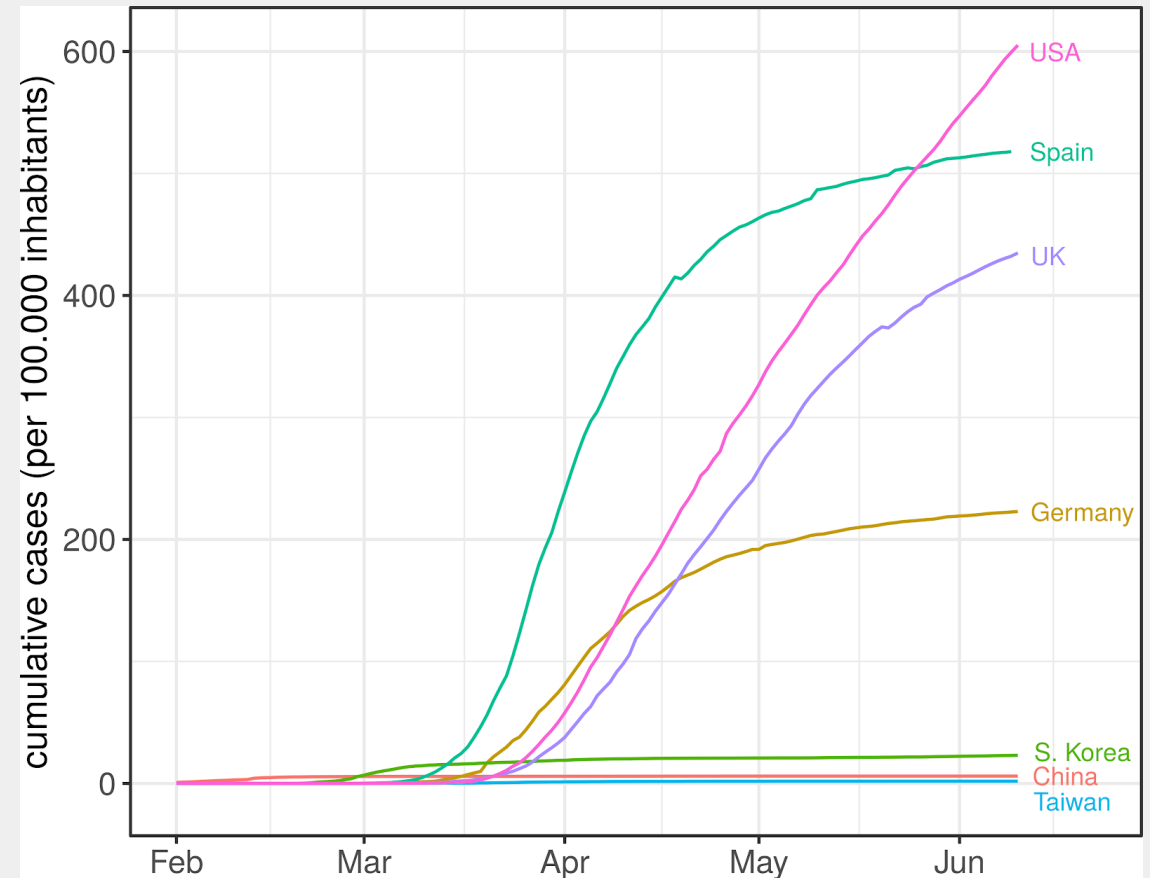
# Delay is very costly!

## COVID-19:

- United States: starting social distancing one week earlier could have avoided 55% of deaths (36,000) between mid March and early May (Pei et al., 2020)
- Only countries with recent epidemics flattened the curves sufficiently

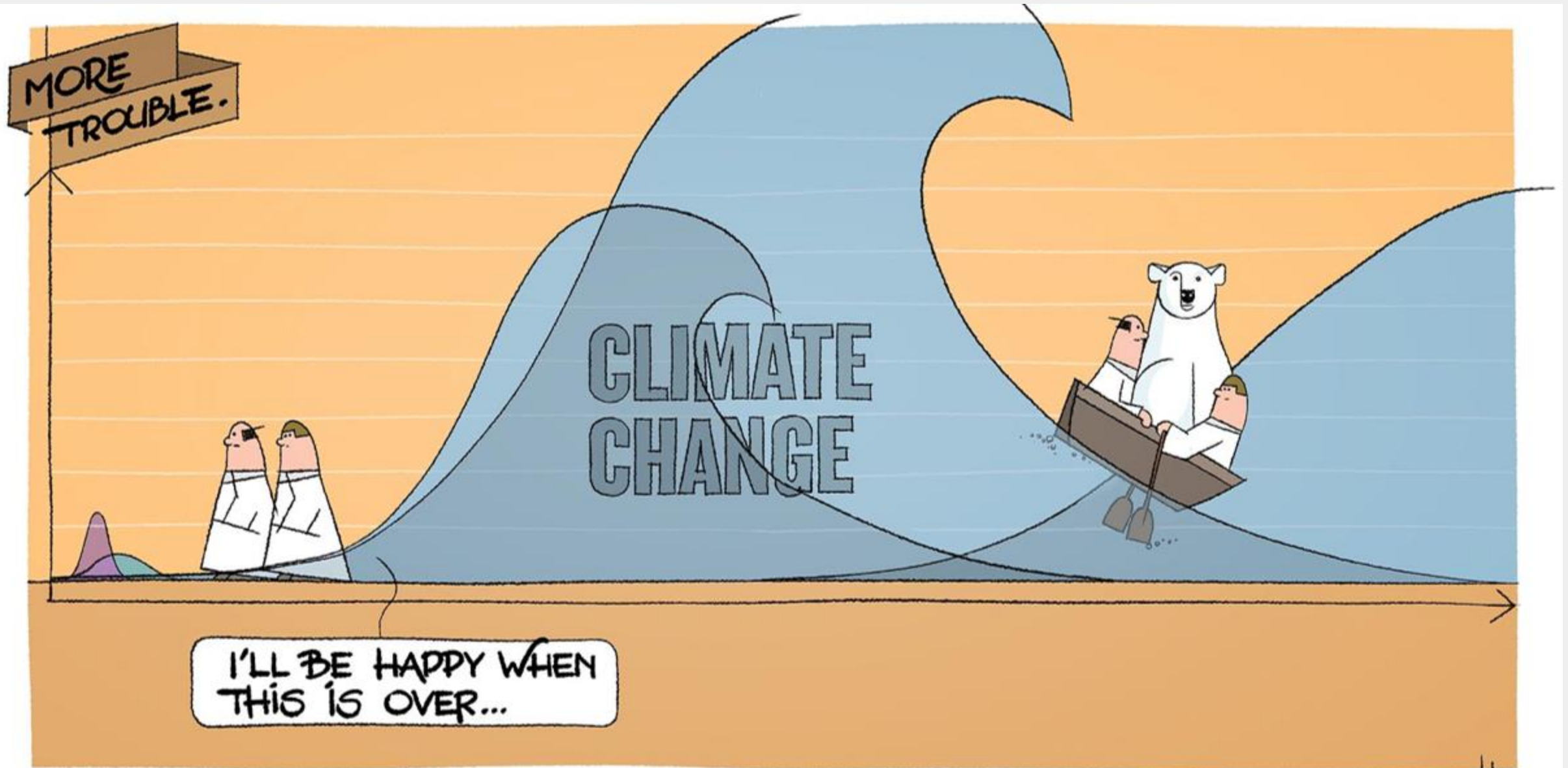
## Climate change:

- Delaying climate action by ten years increases the cost of later climate action by 37% (Fuhrmann et al., 2015)
- Delay creates carbon lock-in and limits mitigation options



- Create institutions for long-term policy goals (e.g. committee on climate change)
- Strengthen incentives for long-termism by delegating powers

# Conclusion?





# Questions and discussion

# Thank you

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