



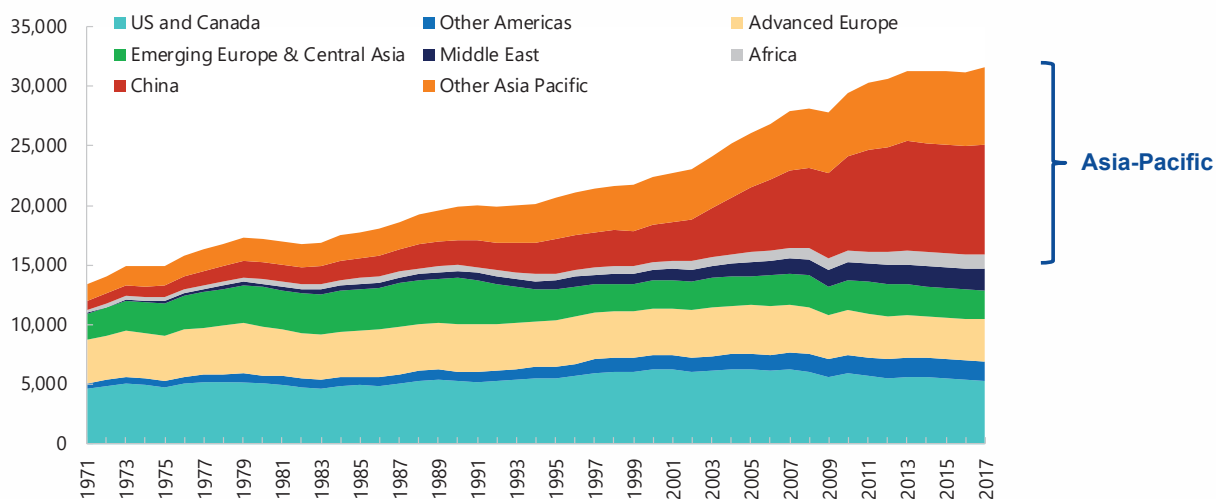
Fiscal Policies for Climate Change and Green Recovery

STI IMF EXPERTS SEMINAR ON FISCAL POLICIES FOR CLIMATE CHANGE AND A GREEN RECOVERY, SEPTEMBER 7, 2021

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Asia-Pacific region emits about half of global CO2

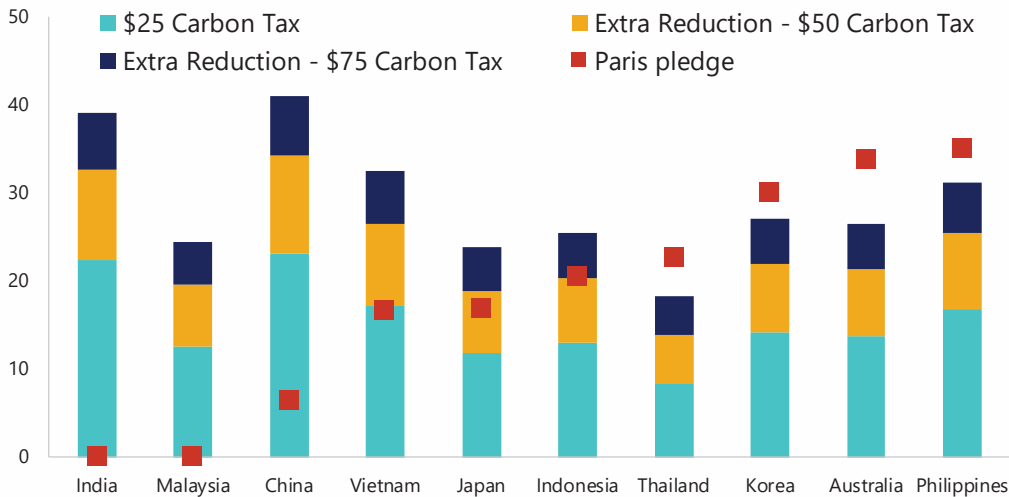
CO2 Emissions from Fuel Combustion, 1970-2017
(In million tons CO2)



Source: IEA, 2020.

Modest carbon taxes could achieve the region's aggregate Paris target, but more could be done

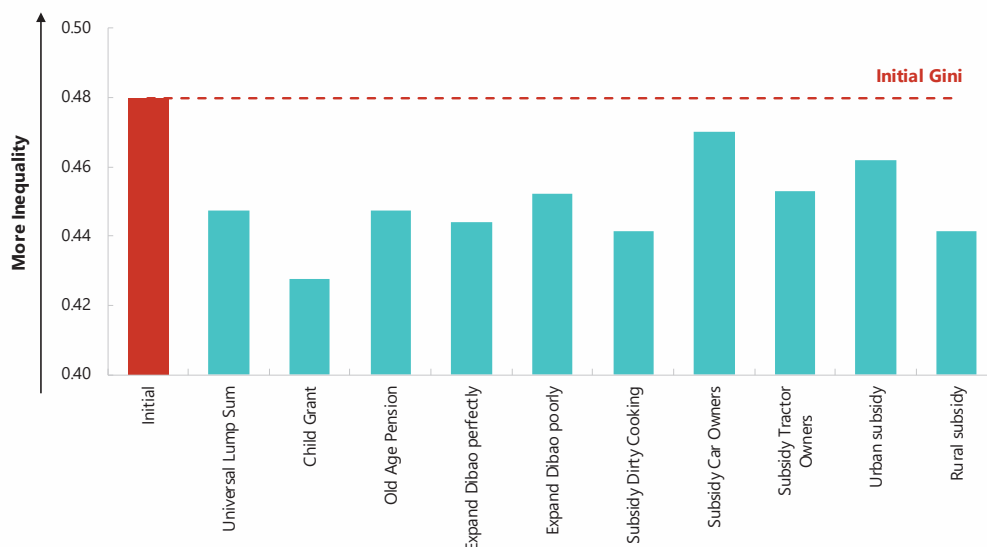
CO2 Reduction with Carbon Taxes
(Percent below 2030 BAU)



Sources: IMF staff calculations.
Note: Countries with zero emission-reduction target from the Paris Agreement climate pledge are assumed to be able to achieve the target in the baseline scenario. Paris pledges reflect newly submitted proposals and updates in 2020.

China: many (good) options to recycle carbon tax revenue

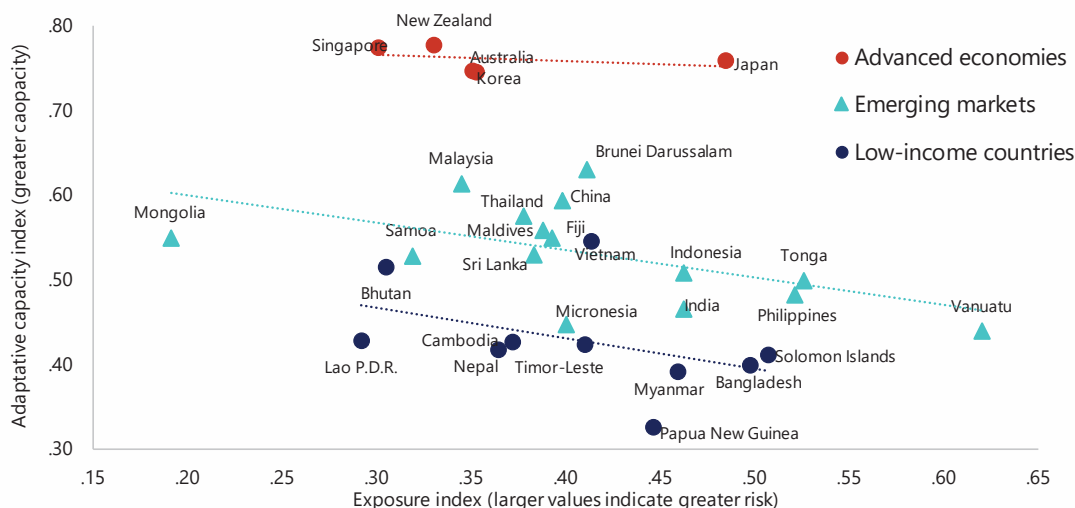
Gini Coefficient: China



Sources: IMF staff calculations.
Note: Gini coefficient after all revenue from carbon tax of \$25/ton recycled in alternative compensation measures.
*Dibao refers to the minimum income scheme.

Countries most exposed tend to have the weakest adaptative capacity

Adaptative Capacity and Physical Exposure
(Index)



Sources: IMF staff calculations based on 2015–18 data from the EU commission, the United Nations University Institute for Environment and Human Security, the University of Notre Dame, and the IMF World Economic Outlook database.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.

High adaptation costs challenging for countries with limited fiscal space

Adaptation Costs and Fiscal Space

	At least some fiscal space or moderate/low risk of debt distress	At-risk fiscal space or high risk of debt distress
Public adaptation costs above 1 percent of GDP	China, Bangladesh, Cambodia, Indonesia, Japan, Korea, Myanmar, PNG, Philippines, Solomon Islands, Timor-Leste, Vanuatu, Vietnam	Fiji, Kiribati, Laos, Malaysia, Maldives, Marshall Islands, Micronesia, Tonga, Tuvalu, Samoa
Public adaptation costs below 1 percent of GDP	Australia, Bhutan, Nepal, New Zealand, Singapore, Thailand	India

Note: Fiscal space assessments are estimated for advanced and emerging economies and are based on the last published AIV debt sustainability assessment; risks of debt distress are estimated for low-income countries and are taken from the last published debt-sustainability assessment. These assessments were done pre-COVID and do not reflect the latest developments since the outset of the pandemic.

Source: Hallegatte et al. 2019, Nicholls et al. 2019, Rozenberg et al. 2019, IMF staff reports and Staff calculations.

Key messages

- Efforts to cut emissions need to be stepped-up
 - *Carbon tax most efficient, but many options—what matters is results*
- Need to identify and compensate losers
 - *Existing social schemes can be used, and will improve inequality*
- Scale-up adaptation investment
 - *Start now to support green recovery*
 - *But many of the most vulnerable don't have the fiscal space*
- Increase multilateral financing for climate change

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Asia and Pacific Department
Fiscal Affairs Department

Fiscal Policies to Address Climate Change in Asia and the Pacific

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Thank You!