INTERNATIONAL MONETARY FUND

FACTSHEET

Climate, Environment, and the IMF

Stabilizing atmospheric concentrations of greenhouse gases will require a radical transformation of the global energy system over coming decades. Fiscal instruments (carbon taxes or similar) are the most effective policies for reflecting environmental costs in energy prices and promoting development of cleaner technologies, while also providing a valuable source of revenue (including, not least, for lowering other tax burdens). Fiscal policies also have a key role to play in addressing other environmental challenges, like poor air quality and urban congestion. Getting energy prices right has large fiscal, environmental and health benefits, and need not wait on international action. Falling energy prices, fiscal pressures and emissions mitigation pledges made by 191 countries for the 2015 Paris Agreement create an opportune time for reform.

Climate change has become one of the world's foremost policy challenges. In line with its mandate and expertise, the IMF focuses on the fiscal, financial, and macroeconomic challenges. The IMF also advises (e.g., through technical assistance to member countries) on the appropriate design of carbon pricing and fiscal reforms to promote greener growth more broadly, particularly with regard to the practicalities of getting prices right in energy and transportation systems to reflect environmental costs.

Fiscal implications

Broad-based charges on greenhouse gases, such as a carbon tax, are the most effective instruments for encouraging cleaner fuels and less energy use. Carbon taxes can also raise substantial amounts of government revenue, are a highly practical extension of existing administration for fuel taxes, and can be in countries' own national interests due to domestic health and other co-benefits. Emissions prices can be aligned with mitigation pledges.

Cap-and-trade systems are another option, but generally they should be designed to look like taxes through revenue-raising and price stability provisions.

Designing a response

There are many issues to consider in designing fiscal policies to mitigate climate change:

- the appropriate tax level and base, and the treatment of traded goods;
- revenue use and the balance between carbon and other taxes;
- technology policies, the treatment of forestry and other non-energy emissions;
- the potential for reforming pre-existing energy taxes and regulations;
- how to address impacts on vulnerable households and firms; and
- international coordination (e.g., through carbon price floor arrangements).

These and other issues are discussed in the Managing Director's Statement on the Role of the Fund in Addressing Climate Change, a recent Staff Discussion Note and IMF books Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers and Implementing a US Carbon Tax: Challenges and Debates.

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Climate mitigation policies affect countries' economic growth, saving and investment levels, capital flows, and exchange rates. But IMF analysis suggests these costs are manageable if policies provide price stability, adjust to new information and changing economic conditions, are implemented broadly and equitably, and are accompanied by broader fiscal reform.

On **climate finance**, the IMF, in collaboration with the World Bank and others, undertook a study for the G-20 in 2011 on the effectiveness, revenue potential, and administration of a wide range of fiscal options for mobilizing $100 billion for climate projects in developing countries. This included analysis of potential charges for international aviation and maritime emissions, and domestic (carbon-related and other) fiscal instruments.

On **climate adaptation**, the IMF is assisting small states and other countries enhance macroeconomic disaster risk management frameworks, determine the appropriate combination of building buffers and risk transfer through insurance or financial market instruments, and tailor investment and growth policies to building resilience. And on **financial sector** resilience, IMF staff support initiatives encouraging consistent climate-related disclosures, prudential requirements, and stress testing (e.g., designing disclosure rules for climate risk exposure, developing best practices for stress-testing climate risks, supporting work on globally consistent prudential requirements for the insurance sector, and capacity building for developing markets and instruments to manage climate risks).

Other environmental work in the IMF

There is also ample scope for reforming tax systems to deal much more effectively with broader environmental and related problems that can be a significant drag on economic growth, such as the health and productivity impacts of poor air quality, and severe congestion of major urban centers. The key challenges are to restructure existing energy tax systems to directly target the source of environmental harm (e.g., by taxing emissions or driving on busy roads rather than electricity consumption or vehicle sales), to better align tax levels with the scale of environmental harm, and to overcome practical challenges of higher energy and transportation costs.

Earlier IMF papers lay out core principles of green tax design and focus on case studies for Chile and Mauritius. A 2014 IMF report (covering over 150 countries) provides estimates for taxes on fossil fuel products to reflect pollution and other environmental impacts associated with energy use, while underscoring the large environmental, health, and fiscal benefits from tax reform and the critical role of finance ministries in administration and ensuring efficient use of revenues.

A recent IMF paper put the magnitude of subsidies for fossil fuel energy sources at $5.3 trillion worldwide in 2015, including both direct fiscal costs and implicit subsidies from the failure to charge for environmental damages or tax energy at the same rate as other consumption products. An earlier book draws on case studies to provide practical guidance (e.g., on better targeted instruments commonly available to protect the poor) for implementing energy price reform. In the case of petroleum products for example, reducing subsidies could significantly reduce greenhouse gas emissions in many countries, while at the same time reducing fiscal deficits.

Other recent work explores opportunities for more efficient pricing of water.

For more information on the Fund's environmental activities see www.imf.org/environment.