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 (e.g., 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.

Responding to 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 of climate change. The IMF also provides advice on the appropriate design of fiscal reforms to promote greener growth more broadly, particularly with regard to the practicalities of getting prices right in energy and transportation systems.

Fiscal implications

Broad-based charges on greenhouse gas emissions, such as a carbon tax, are the most effective instruments for reducing emissions throughout the economy. They promote widespread changes in behavior, encouraging businesses and individuals to reduce energy use and switch to cleaner fuels.

Carbon taxes can also raise substantial amounts of government revenue. Fiscal challenges created by current economic difficulties provide an opportune time to consider these types of innovative environmental charges.

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;
- the role of complementary policies—such as clean technology research, development, and deployment policies;
- the balance between carbon and other taxes in financing the government's budget and how to use the additional revenues;
- the treatment of forestry and other non-energy emissions; and
- how to address impacts on vulnerable households and firms.

These and other issues are discussed at length in a recent IMF book, Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers. In 2014 the IMF (with the Brookings Institution and Resources for the Future) will publish an edited volume focused specifically on the design of a U.S. carbon tax in the context of broader fiscal reform.

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Financing responses to climate change

There is broad agreement that substantial financial assistance is needed for climate adaptation and mitigation projects in developing countries. In 2011, the IMF, in collaboration with the World Bank and others, undertook a study for the G-20 on the effectiveness, revenue potential, and administration, of a wide range of fiscal options for climate finance. This included analysis of potential charges for international aviation and maritime emissions and domestic (carbon-related and other) fiscal instruments.

An IMF staff proposal for a Green Fund would facilitate financial flows to developing countries' to assist in their efforts on climate change adaptation and mitigation. The Green Fund would be neither created nor managed by the IMF itself. It would play an important role as a framework to mobilize resources, and could be the first step toward a binding global agreement on reducing greenhouse gas emissions.

Macroeconomic challenges

Climate change 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 are well designed. In particular, policies should be credible and provide long-term price stability, flexible enough to be able to adjust to emerging information and changing economic conditions, and implemented as broadly and equitably as possible.

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. And an IMF report (to be published in summer 2014 and covering over 150 countries) provides estimates for taxes on fossil fuel products to reflect pollution and other environmental impacts associated with energy use and underscores the large environmental, health, and fiscal benefits from tax reform.

A recent IMF paper and book published in September 2013 put the magnitude of subsidies for fossil fuel energy sources at about $2 trillion worldwide in 2011, 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. The paper and book draw 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. The IMF is also involved in regular monitoring of fuel pricing policies in response to volatile international fuel prices. Another recent study defines and measures the concept of "green investment" and explains recent trends.