




Fiscal Policies for Development and Climate Action

Policy Summary for
Finance Ministers



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Macroeconomics, Trade & Investment



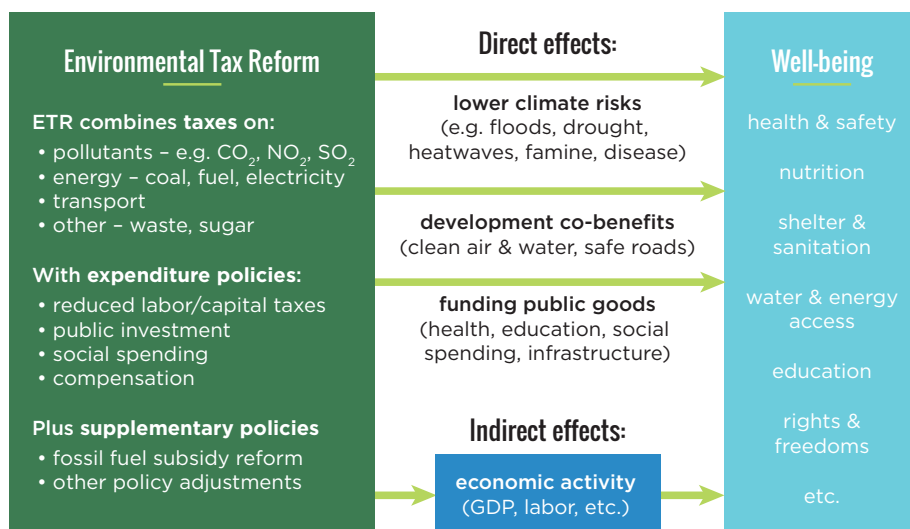
Climate change is one of the greatest threats to economic development. Fiscal policy is an effective tool, but under-utilized, for acting on climate change while supporting development. The ***'Fiscal Policies for Development and Climate Action'*** report builds on more than two decades of economic research, and argues that developing countries can make use of fiscal instruments for climate mitigation and adaptation while raising well-being. Environmental Tax Reforms (ETR) can help cut greenhouse gas emissions, raise funds for social spending and infrastructure investment, promoting overall development in a country. Preventive public investment in adaptation and risk management strategies can increase environmental resilience and safeguard stability and growth in the face of fiscal risks associated with natural disasters. The report provides policy recommendations for finance ministers to enhance domestic resource mobilization and raise human well-being while shielding development from climate change, one of its greatest threats.

Key findings

The benefits of environmental tax reform extend beyond environmental goals

Environmental taxes (e.g. on fossil fuels) discourage polluting activities while promoting investments in cleaner, more efficient sources of energy. An ETR combines revenues from environmental taxes with reductions in distorting taxes, like those on labor, or increases in public investment and social spending, while providing targeted compensation for poorer households affected by increases in energy prices (Figure 1).

FIGURE 1 • ETR has direct and indirect effects on human well-being



Note: CO₂=carbon dioxide; SO₂=sulphur dioxide; NO_x=nitrogen oxides; GDP=gross domestic product

Empirical studies have shown ETR to be effective at reducing emissions with either a negligible or positive impact on the economy in developed countries. For instance, British Columbia's introduction of a carbon tax resulted in emission cuts by 5-15% and slightly increased GDP growth and employment during 2007-13.

Few developing countries have implemented ETRs. Turkey raised fuel taxes to increase tax revenues and cut its dependence on oil imports during its financial crisis of 1999-2001. Mexico was the first developing country to introduce an economy-wide carbon tax in 2014, followed by Chile and Colombia. South Africa is also undertaking a carbon tax reform. However, there are reasons to suspect

that ETR has even more positive effects in developing countries than in developed countries:

- ▶ **First**, large informal sectors in developing countries allow for gains in employment and output by using environmental tax revenues to reduce formal-sector taxes. Moreover, inefficient tax systems provide opportunities to reduce tax distortions, broaden the tax base, and tax rents rather than profits; and low levels of domestic taxation create opportunities for ETR to mobilize domestic resources to fund growth-enhancing public investment.
- ▶ **Second**, development co-benefits of ETR also tend to be larger in developing countries. Environmental taxation can promote improvements in air quality and public health, alleviate costly traffic congestion, and reduce the frequency of road accidents. The revenue from environmental taxes can help the economy to adapt to climate change or can increase spending on education, health, social services, and other public goods.

However, despite the potential benefits, public support for ETR tends to be low. The cost concentration of environmental taxation (the incidence of high energy prices for certain types of firms and consumers) compared with the diffusion of benefits across society, can generate a situation in which opposition is easier to mobilize than support for ETR. Thus, addressing public support upfront is therefore critical to ensuring ETRs are implemented and sustained.

New empirical evidence suggests ETR can raise firm productivity in developing economies

This report includes new empirical analysis—from Indonesia and Mexico—showing that higher fuel prices may improve plant-level performance. This surprising result is due to firms adopting more productive and energy-efficient capital rather than increasing output prices in response to fuel price hikes. A rise in fuel prices in countries where these prices are very low incentivizes firms to become more efficient and invest in innovation. This is consistent with the strong version of the Porter hypothesis which argues that more stringent environmental policy can result in innovation that enables companies to improve their productivity, more than offsetting compliance costs (Porter and Van der Linde, 1995, <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.9.4.97>). This finding contradicts the perceived negative impact of environmental taxation on the productivity and international competitiveness of domestic firms as an obstacle to ETR.

Fiscal instruments can help countries adapt to climate change and build resilience

Fiscal instruments are also crucial for adapting to climate change. The report finds that preventive investments designed to anticipate the effects of climate change yield better economic outcomes than remedial actions responding to effects that have already occurred. The best results are achieved when these investments are funded through taxation or spending cuts, rather than deficit financing, which increases the debt stock and constrains external borrowing. Moreover, the earlier actions are taken, the greater the cumulative benefit. However, even preventive spending is insufficient to fully shield an economy from the damage and losses of a natural disaster. The report finds that increasing fiscal space, accumulating resources in a contingency fund before a disaster strikes, alongside the use of pooled insurance mechanisms and market insurance, can help make fiscal policy climate-resilient.

Reform Priorities

1

Get 'energy prices right' through environmental tax reforms

While most environmental policies are the purview of environment ministries, implementing ETR requires the active engagement of finance ministries. Given the crucial role of price incentives for all economies, 'getting energy prices right', i.e. aligning energy prices with the social costs of carbon emissions, local air pollution, and other negative externalities, should be an integral component of all modern fiscal systems. Failing to do so incentivizes overuse and contributes to a range of negative social and economic outcomes. Moreover, subsidizing fuel or electricity is a highly inefficient strategy for transferring welfare benefits to poor households, which typically use the least amount of fuel and electricity and suffer the most from their negative externalities. It is also a highly inefficient industrial policy as it interferes with managerial decisions by distorting input prices rather than rewarding output. Taxes are not the only set of instruments which achieve environmental objectives. But, in many cases, environmental taxation will be critical for reaching environmental objectives at the least economic cost.

II

Design environmental tax reforms that are tailored, transparent, and politically viable

Taxing fossil fuels at the point of extraction or importation, as opposed to the point of combustion, minimizes the administrative burden and covers the entire economy, including the informal sector. As upstream firms pass on the tax to downstream consumers, the environmental tax incidence is passed throughout the supply chain. As a result, the tax can be implemented where it is easiest to collect (upstream) without diminishing the incentive to cut emissions where the fuel is burned (downstream).

There is not 'one-size-fits-all' ETR. However, experience from developing countries that have reduced or eliminated fossil-fuel subsidies, as well as the smaller number that have implemented carbon taxes, suggest that reforms need to be transparent and inclusive. Outreach strategies, such as targeted information campaigns or broad consultations (which include 'winners' as well 'losers'), are crucial for raising and sustaining the political support for ETR.

The implementation of environmental taxes should seek to maximize their political acceptability. Public knowledge of environmental taxation is often limited, and voters tend to be risk-averse. Governments should implement public outreach strategies that emphasize the environmental, social, and economic benefits of ETR and explain the tradeoffs involved and any planned compensatory measures. Attention should be drawn to benefits that might otherwise go overlooked and how revenues will be used. Expenditures should be planned well in advance, with increases in tax and expenditures coinciding. Implementation should be gradual and predictable, allowing firms to adapt.

III

Compensate affected firms only where necessary

ETR policies do not necessarily reduce competitiveness, and can in fact promote firm-level efficiency gains. For sectors with difficulty adapting to higher energy prices, support should be provided only if there is clear evidence of a significant negative impact on competitiveness. Support measures must be carefully targeted and appropriately calibrated. In addition to administrative and legal considerations, policymakers should strive to preserve incentives for affected firms to adopt more energy efficient technologies and processes. Support should be proportionate to the negative effect, and decrease over time as domestic industries adapt to higher energy prices. Although tax exemptions have been the most popular policy to protect industries, they are far less effective than other policy options. Alternative measures include: using revenues from environmental taxes to lower corporate income taxes,

rebating revenues back to the supported industry per unit of output produced (output-based rebates), financing energy-efficiency programs, or using a consumption-based excise tax to cover imports while exempting exports (consumption-based carbon pricing).

IV

Strengthen resilience by investing in adaptation, building fiscal buffers and insurance

Finance ministers can use preventive public investments in adaptation – combined with measures to maintain fiscal space and ease borrowing constraints – to address the gradual impacts of climate change and prepare the economy for extreme weather events. Finance ministries can also bolster climate resilience by building climate-change considerations into the design, appraisal, and selection of all public investment projects while encouraging private investment in adaptation. Contingency plans should allow for the scaling up of existing safety nets in the event of a disaster. Rules for triggering public interventions, including the size of relief transfers to households, and responsibility for administering different programs should be defined well in advance.

Finance ministers should quantify and incorporate climate risks into fiscal risks statements accompanying the budget. Credible fiscal rules can help governments avoid pro-cyclical policies that would magnify climate risks and can provide the discipline to gradually build fiscal buffers, such as savings funds. Contingent lines of credit offered by international financial institutions and market instruments such as catastrophe bonds can help governments quickly mount recovery, and reconstruction efforts. In the case of highly indebted countries, such instruments can also give capital markets confidence that a natural disaster will not push a government into debt distress.

Finally, governments need to seek ways to transfer risks to markets and pool risks across countries. They are less likely to be called upon to cover private losses from natural disasters if firms and households are covered by insurance policies. Regional catastrophe-insurance schemes such as the Caribbean Catastrophe Risk Insurance Facility, which was created in 2007, and the African Risk Capacity Insurance Company Limited, have played a key role in helping countries manage climate risks.





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