

CLIMATE ACTION & INFRASTRUCTURE FOR DEVELOPMENT TASK FORCE

Green Fiscal Reform for a Just Energy Transition in Latin America

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Abstract

Green fiscal reforms would contribute to climate change mitigation, increase the economic efficiency of national tax systems and provide additional public revenues. Policy makers need to ensure that the overall political and macro-economic conditions are favorable for green fiscal reforms and develop comprehensive reform plans. Reforms cannot usually be introduced directly; they require gradual introduction and appropriate policy sequencing. To avoid adverse impacts for the poorest sections of the population, it is crucial to understand the distributional impacts of higher energy prices and design appropriate compensation schemes. To ensure that all relevant social groups are fairly considered, transparency and stakeholder participation are crucial. International fora, such as the G20, can play a crucial role in sharing experiences on different design options, carrying out monitoring and peer-review of green fiscal policies, providing financial assistance and building administrative and institutional capacities.

Challenge

Putting a price on greenhouse gas (GHG) emissions can help reduce environmental damage linked to both local pollution and global warming (Bak et al. 2017). However, most countries in Latin America either have no such price, or they incorporate negative prices in the form of fossil fuel subsidies (World Bank, Ecofys, and Vivid Economics 2017). This actively supports the use of fossil fuels, particularly for large oil producers. Green fiscal reforms that reduce subsidies for fossil fuels and introduce positive prices on emissions would not only contribute to climate change mitigation, but could also increase the economic efficiency of national tax systems and provide additional public revenues that could be employed to advance human development (Dao Nguyen et al. 2017).

Energy and climate policy is deeply embedded within a broad range of policy targets. For instance, many Latin American economies are dependent on extractive industries and are distinguished by high levels of economic inequality. Climate change mitigation can only be successful if it is part of a 'just transition' that fosters human well-being (Dao Nguyen et al. 2017).

Proposal

After the adoption of the Paris Agreement, practically all countries in Latin America submitted their Nationally Determined Contributions (NDCs) that specified their



intended climate targets. Green fiscal reform would be a viable next step to move from ambition to practical implementation of these targets. Even though there are some general insights applicable to all countries, the specific national situation will determine the details of policy design and implementation. This policy brief reviews insights provided by the academic literature and compiles expert knowledge on selected countries to shed some light on possibilities for, and limitations to, green fiscal reform.

1. Identifying favorable political conditions for green fiscal reforms

As a first step, it will be necessary to develop a clear understanding of conditions providing the opportunity for green fiscal reform. Variables such as the overall state of the economy, internal political stability, public debt, governance of environmental policies, oil prices, the maturity of green technologies, and dependence on energy imports can be expected to play important roles. Other factors include focusing events, such as climate-related impacts, power outages, or smog episodes (Karapin 2016). Developments on the international level, such as progress in international climate negotiations or introduction of green policies in other countries, may boost domestic support for green fiscal reforms. Likewise, newly appointed heads of state may have the clout necessary to successfully foster such reforms, especially when there is sufficient backing by the general population.

In Brazil, the Ministry of Finance and the World Bank have been working together since 2012 in the Partnership for Market Readiness (PMR) to assess the suitability and feasibility of carbon pricing. The fiscal reform process, currently under discussion in the National Congress, offers an opportunity to introduce tax instruments aimed at achieving environmental policy objectives. However, political controversy surrounding the current president makes it unlikely that fiscal reform will be implemented before a new president starts his administration in 2019. The political feasibility of fiscal reforms will also depend on the outcome of the elections for congress and senate in 2018.

In Argentina, the ongoing process of fossil fuel subsidies removal is mainly driven by fiscal pressures and the need to reduce fuel imports. Fiscal reform in Argentina has been prone to instability and renegotiation. Reforms were typically put in place after severe economic shocks and changes in the national context resulted in frequent reversals of reform efforts (Bonvecchi 2010). Hence, the enabling conditions that ensure political legitimacy and acceptability, minimize disruptions in labor and financial markets, reduce blocking and the delaying power of vested interests, address the emerging conditions of political losers from subsidy reform, and diminish the impact on poor and vulnerable people need to be strengthened in order to move towards comprehensive green fiscal reform.



In Ecuador, the last decade saw favorable political conditions for fostering a green reform. Former President Rafael Correa was relatively popular, the oil price was very high between 2011 and 2013 (over 95 US\$/barrel) (BCE 2017c) and there was a large investment in hydro power plants that would have facilitated a fuel switch in cooking applications from LPG to electric induction stoves (MEER 2017). Nevertheless, green fiscal reform was never introduced as the authorities were afraid of how citizens, especially poor people, would react. Understanding the distributional effects of a fiscal measure and communicating them effectively to citizens may help to foster fiscal reform.

In Peru, the economic growth experienced in the last 10 years could have created a favorable space to introduce and establish environmental fiscal reforms. However, the introduction of these reforms has been slow due to problems common to most countries in Latin America, such as informality, corruption and high rates of tax evasion (Paton 2016). The possible entry of Peru into the OECD could create a favorable scenario for implementation, since it has been recommended that the country includes environmental considerations in the tax system, encouraging the application of environmental taxes (OECD/ECLAC 2018).

2. Developing comprehensive reform plans

Energy- and climate-related policies do not exclusively affect environmental issues; they also impact areas such as transport, industry, agriculture, finance, trade, or social inclusion (Fuso Nerini et al. 2018). Policy makers can build on synergies to ensure a just transition and increase support for reform (Vogt-Schilb and Hallegatte 2017). Policy areas of potential synergies include energy security (reduced reliance on fossil fuel imports), local environmental benefits and the potential to diversify the economy. On the other hand, trade-offs may arise in terms of economic competitiveness due to higher energy prices and adverse effects of renewable energy use on land-use, food production, and biodiversity (Tanaka 2011).

Low financing costs for low carbon energy are an important enabler for fiscal reforms (UNDP 2015; Schmidt 2014). When financing costs are high, carbon pricing is not likely to be sufficient to decarbonize the energy sector and hence reduce emissions (Hirth and Steckel 2016). In many Latin American countries investors need to pay high risk premiums for investments in the energy sector (Ondraczek, Komendantova, and Patt 2015). Policies designed to lower financing costs can either address underlying sources of investment risk, or shift the risk away from private investors (e.g. by issuing green bonds, or providing loan guarantees) (UNDP 2015). De-risking policies can be applied by both national governments and the international community (e.g. regional development banks) (see Steckel and Jakob (2018) for a detailed discussion).



In addition, green fiscal reforms should consider the specific characteristics of different sources of CO₂ emissions. For Latin American countries a high share of emissions stems from land use, land use change and forestry (LULUCF), namely 42% of total emissions (CEPAL 2017).. This indicates how green fiscal reforms also require fiscal mechanisms to reduce deforestation, e.g. by channeling some of the revenues of fossil fuel subsidy reform or carbon pricing to results-based payments for forest protection. For instance, the Ecuadorian NDC considers actions for mitigation of GHG in the LULUCF sector. Through the National Forestry Restoration Program, Ecuador plans to restore 500,000 additional hectares by 2017 and increase this total by 100,000 hectares per year up until 2025 (UNFCCC 2015).

The multi-objective nature of energy and climate policies needs to be reflected in comprehensive strategies that ensure consistency of climate targets with other policies. Such strategies will need to include all relevant ministries and encourage coordination between national and subnational public entities. Green reforms should particularly consider important Latin American challenges such as informality, inequality, unemployment, air quality, or lack of national industries to provide capital inputs for renewable energy projects.

For instance, Argentina aims to reduce trade and fiscal imbalances, unemployment, poverty, and inflation while keeping external debt in check. An integrated green fiscal reform could accelerate investment in innovative technologies that not only reduce environmental impacts, but may also enhance competitiveness, job creation, poverty alleviation, and reduce economic inequality. Key authorities and ministries that could drive this kind of transformational change include, inter alia, the Ministries of Economy, Finance, Environment and Sustainable Development, Energy and Mining, Transport, Agroindustry, and Production, as well as the Chief of Cabinet and the National Climate Change Cabinet.

In Peru, the main environmental problems are closely linked to social and energy problems, such as a lack of access to electricity and sanitation in rural areas. Replicating the successful international experiences, a green tax reform in Peru could finance payment schemes for environmental services to compensate indigenous communities and guarantee the sustainable use of forests (Trinidad and Vargas 2017). This requires coordination between various public sectors, such as the Ministries of Economy and Finance, Environment, Energy, Social Inclusion, and Agriculture.

3. Sequencing of reforms and gradualism

In most situations fiscal reforms cannot be introduced directly; they normally require a preparatory phase that prepares the ground by lowering the costs of reform, thus



reducing political resistance. For instance, fiscal incentives for alternative energy sources would create groups that would directly benefit from (and which can hence be expected to lend political support to) green policies (Meckling et al. 2015). Green fiscal reforms can also be introduced after building administrative capacity to effectively enforce the policies. Such capacity could include staff to monitor fossil fuel sales and tax payment.

In many countries, price increases for liquefied petroleum gas (LPG) and diesel are politically contentious, as these fuels are important for low-income households, either directly, in the case of LPG, or indirectly through public or goods transportation. On the other hand, gasoline prices are often less contentious in terms of aggravating poverty, as they are predominantly consumed by richer households. Suddenly raising prices for all fossil energy carriers to their desired level could cause substantial economic problems, as firms and consumers require time to adjust (IMF 2013).

In 2017 Argentina introduced a tax on the carbon content of gasoline, gas oil, fuel oil, coal and other liquid and solid fossil fuels (corresponding to a carbon price of approximately US\$ 10 per ton of CO₂). The carbon tax has been designed to have no initial impact on the final prices of fuels as it partially replaces an existing tax on fuels. The intention is to start preparing the ground for future price rises that have real impact on final prices. Due to existing infrastructural limitations and the lack of technological alternatives, the carbon tax introduction will not, alone, generate sufficient motivation for decarbonization in the scale and time frame required. This will only be achieved if Argentina's carbon tax is accompanied by adequate energy, infrastructure, industrial, technological and communicational policies (Gutman 2018).

Peru already applies taxes to gasoline and diesel based on the health impacts of its particulate matter and nitrous oxide emissions. Adding GHG emissions to this index would be a straightforward way to align the price of transport fuels with their true social costs (Jakob 2018). Likewise, in cost-benefit analyses of public investment, Peru incorporates an accounting price of about US\$ 7 per tCO₂. These accounting costs of carbon could be raised gradually in line with increasingly ambitious national (as well as international) climate targets (Jakob 2018). Other gradual options that Peru could adopt are the phasing out of some subsidies for fossil fuels in regions of the Amazon in exchange for greater public investment and general support policies, and the evaluation of efficiency of existing incentives for investments in renewable energies.

The environmental tax of vehicular pollution (IACV) in Quito, Ecuador, disincentivizes the use of old and large engined vehicles (SRI 2018). More wide-spread use of more efficient vehicles could make it easier to raise gasoline prices, as vehicle owners would be less severely affected by higher fuel prices.



4. Understanding distribution and compensation

Phasing out inefficient fossil fuel subsidies has been a long-standing issue in the G20 negotiations. While the G7 has suggested that all countries should phase out subsidies by 2025, the G20 has not yet agreed on a date. The resistance partly stems from the fear that it would be the poor who would suffer from the phasing out of subsidies. In Latin America, a recent Inter-American Development Bank study suggests that, with energy subsidies, it costs governments US\$12 to transfer US\$1 of income to households in the poorest quintile. Gasoline and diesel are the most inefficient subsidies, costing \$14 per dollar benefit. The most pro-poor fuels are gas or LPG, costing about US\$9 per dollar (Feng et al. in press).

Different schemes can protect low-income households from the impacts of higher energy prices. These include direct cash transfers, in-kind transfers (such as provision of health, education, social security, or public infrastructure, including public transportation), as well as targeted tax reductions (especially, indirect or regressive taxes and taxes on wages, see Box 1). In addition, numerous countries use block-pricing schemes for electricity, which allow low-income households to consume a specified amount of electricity at a reduced rate. In principle, a small fraction of savings from subsidy removal is sufficient to compensate poor and vulnerable households. That is, poorer households benefit less than others from fossil fuel subsidies. For instance, in Ecuador the poorest 40% of the population only receive 20% of every US\$ spent on subsidies for diesel and gasoline, whereas the other 80% accrue to the richest 60% of the population (see Table 1).

Table 1: Fraction of government proceeds from subsidy removal or energy taxation on different types of fuels needed to compensate poor and vulnerable households in 11 LAC countries (i.e. households in the bottom 40% of the income distribution)(Feng et al. in press).

	Diesel and gasoline	Electricity	Natural Gas and LPG
Argentina	21.9%	27.4%	27.2%
Bahamas	27%	29.6%	
Barbados	14.1%	20.5%	
Chile	27.3%	27.6%	
Costa Rica	5.7%	26.7%	33.9%
Ecuador	20%	24.2%	33.6%
Guatemala	14.7%	18.7%	10.6%
Jamaica	19.1%	21.4%	23.2%
Nicaragua	17.5%	21.4%	20.7%
Paraguay	20.6%	21.4%	25.4%
Uruguay	15.1%	21.2%	21.8%



Box 1: Overview of compensation mechanisms

Increases in energy prices are likely to negatively affect the poorest social groups. Compensatory mechanisms that have been used in some countries in Latin America include:

Vouchers: When LPG subsidies were removed in 2002, Brazil introduced LPG vouchers for households that were recipients of the Bolsa Familia social assistance program. The government later introduced a conditional cash transfer program to obviate the need for general LPG subsidies (Kojima 2013; Komives et al. 2008).

Cash transfers: The Vale Gás program in Brazil was established in 2001, and is still in operation. It assists consumption of gas by poor households by subsidizing bottle purchase and direct payment was made to registered families. Registration is combined with Bolsa Familia.

Reliance on general social protection programs: In Mexico, LPG prices have been gradually increased (Toft, Beaton, and Lontoh 2016). These reforms employed transfer mechanisms within existing social welfare mechanisms (Oportunidades) to mitigate the effects of higher prices.

Social expenditure: In Colombia, the income from the national carbon tax finances activities related to peacebuilding, sustainable rural development and conservation and environmental sustainability.

5. Fostering transparency and participation

Transparency is key to ensuring policy credibility, i.e. the expectation that announced policies will in fact be introduced and maintained (Nemet et al. 2017). To achieve this, environmental agencies need information about the social costs of negative externalities. Green fiscal reforms should include periodic evaluations of impact and effectiveness. It is critical to legitimacy to ensure that the associated revenues are well employed (Drews and van den Bergh 2016). Importantly, stakeholder consultations need to guarantee that all relevant social groups are represented in the decision making process and that appropriate measures are adopted to alleviate excessive adverse impacts on any single group. Fiscal reforms need to include consultation processes to guarantee that traditional rights of the indigenous peoples living in most Latin American countries are not violated. Such consultations should not only occur prior to the introduction of a reform, but its impacts and the position of key stakeholder to the reform should be continuously monitored. This will enable adjustments to be made if goals are not met, or measures to be introduced to



mitigate adverse effects that go beyond those that had initially been expected (Edenhofer and Kowarsch 2015).

In Argentina, the current administration has proposed the removal of energy subsidies for natural gas and electricity by 2019. The implementation of planned price increases has had to be slowed down and partially delayed as a result of public hearings and social participation. It is believed that delaying policy implementation may well be preferable to risking policy reversal as a result of broad public resistance. In Brazil, the Partnership for Market Readiness has conducted workshops with stakeholders, e.g. from the industrial sector. These workshops revealed resistance to a carbon tax, whereas stakeholders expressed a more positive attitude towards an Emissions Trading Scheme. This demonstrates how stakeholder participation can be crucial to identifying politically feasible policy designs.

6. Building on international links

The international community could play a key role in supporting green fiscal reforms. The G20 could host processes that allow the exchange of experiences to better understand the relationship between policies, their effects and their contexts. Such forums could also be platforms to perform peer review of implemented policies, as is already common practice for subsidy reform under the G20 (IEA and OECD 2015). Furthermore, international climate finance could not only be used for project finance, but could cover the macro-economic costs of green fiscal reforms. An example of this are results-based payments for the introduction of a price on emissions (Steckel et al. 2017).

International climate finance, particularly regional development banks, can play a very useful role in supporting the access of Latin American countries to international climate finance. The Inter-American Development Bank (IADB), the World Bank, the Green Climate Fund (GCF) and the Global Environment Facility (GEF) could be important institutions in the funding of green policies. The EU is also examining how to integrate sustainability considerations into its financial policy framework to generate finance for sustainable growth. It is likely this would also apply to strong green finance in the context of development cooperation.

The Central Bank and Supervisors Network for Greening the Financial System serves as a voluntary platform and a forum for authorities to exchange views and best practices with regards to climate related risks for the financial sector and the development of green finance. The G20 Green Finance Study Group (GFSG) seeks to identify institutional and market barriers to green finance, and based on country experiences, develop options on how to enhance the ability of the financial system to



mobilize private capital for green investment (G20 Green Finance Study Group 2017). Furthermore, the exchange of experiences could be facilitated by the Partnership for Market Readiness (PMR), the Organization for Economic Co-operation and Development (OECD), the Green Fiscal Policy Network, the Carbon Pricing Leadership Coalition (CPLC), the Energy Sector Management Assistance Program (ESMAP), Climate Action Peer Exchange (CAPE) and the Friends of Fossil Fuels Subsidy Reform (FFFSR).



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