Kluwer International Tax Blog

Taxing carbon offset credits

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Why taxation of carbon offset credits matters?

A carbon offset is basically a removal or reduction in greenhouse gases (GHG) emissions, or an increase in carbon storage, that is used to compensate for emissions that occur elsewhere (*i.e.*, another company which may be in another sector, area or even jurisdiction)[2]. Many activities in projects that reduce GHG emissions or increase carbon sequestration can produce carbon offsets credits. A carbon (offset) credit is a transferable instrument certified by governments or independent certification bodies to represent an emission reduction or removal of one metric tonne of CO_2, or an equivalent amount of other GHGs, measured against a counterfactual baseline.

The responsible use of carbon offset credits can accelerate climate action in the emissions-reduction pathway to a 1.5-degree warming target. However, they should be seen as an interim element in the near or medium term, fostering coordination between voluntary actors and governments, while expecting more comprehensive policy action in the long run. Besides, the use offsetting should be legitimate and do not disincentivize simultaneous efforts to mitigate emissions.

Nowadays, certain sources are inevitably involved at some businesses, and/or some technologies to reduce the carbon footprint may be too expensive for some companies. Thus, when their emissions cannot be fully neutralized, corporations can purchase carbon credits and "retire" them to claim the underlying reductions towards their own GHG reduction goals, supplementing their abatement efforts. Offsetting allows the use of carbon credits generated from mitigation activities outside a country, jurisdiction, or company supply chain for which emissions are measured and accounted, toward a compliance obligation or voluntary pledge of a country, jurisdiction, or company[3]. In addition, instead of offsetting GHG emissions, credits may be used in a Corporate Social Responsibility strategy to indicate an organization's charitable contribution to external climate change mitigation efforts.

For these reasons, the demand for carbon credits is increasing with the transition to decarbonized economies. As carbon credits convey a net climate benefit from one entity to another, they may be purchased for compliance purposes, or voluntarily. The latter are a way to channel private financing to climate-action projects. In practice, carbon offset credits may be transferred among

multiple accounts before they are retired.

In 2020, buyers retired carbon credits for some 95 million tons of CO_2 equivalent. Recent estimates announce that the market for carbon credits could be worth upward of $50 billion in 2030[4]. Most trades are made over the counter, and the market is difficult to track. The price of an offset credit can range from under US$1 to well over US$35[5].

This brief overview shows that both revenue and climate arguments should be considered for better taxing carbon offset credits.

Addressing the taxation of carbon offset credits: quick review of some comparative experiences

The tax systems can no longer ignore the lifecycle of carbon credits and their effects on income taxes or carbon taxes[6], and their possible cross-border application[7]. To take them into account, they can rely on the existing carbon offset programs. Several standard-setting organizations already provide quality assurance for carbon offsets[8]. Historically, governmental bodies certified offset credits for regulatory purposes (compliance programs), while Non-Governmental Organizations primarily served voluntary buyers (voluntary programs). Recently, both may serve both types of markets.

In **Chile** the 2020 tax reform provided that taxpayers subject to the carbon tax could offset all or part of their taxable emissions, when determining the amount of tax to be paid. This opened the door to the development of emission reduction projects[9].

In **Colombia** in 2017, Decree 926 established the conditions that allow some regulated entities to be certified as “carbon neutral” and thus be exempt from tax liability. To qualify for neutrality, entities must submit a request for exemption before the tax compliance deadline, accompanied by a “Certificate of Voluntary Cancellation” and a “Verification Statement” of eligible offsets equal to their emissions[10]. The fact that Colombia allows entities to offset 100 per cent of their tax liability through carbon offsets has encouraged the development of projects that have been registered, verified and certified to mitigate carbon emissions. In the first half of 2017, 2 million tonnes of CO_2 emissions were offset.

In **Mexico** the Special Tax on Production and Services – “IEPS” carbon can be paid through Clean Development Mechanism (CDM) offset credits[11]. Since 2018, the Mexican government has accepted Certified Emission Reductions (CER) from Mexican projects approved by the United Nations Framework Convention on Climate Change (UNFCCC) to cover 20 per cent of the tax payment under certain conditions[12]. According to estimates from SEMARNAT (Mexico’s Ministry of Environment), the carbon tax has been responsible for a reduction of approximately 1.8 million tCO_2 per year.

In **South Africa** the Carbon Tax Act of 2019 allowed companies to use carbon offsets to reduce their carbon tax liability by up to 5 to 10 per cent of their actual emissions, in accordance with the requirements developed by the Carbon Offsets Regulation[13]. South Africa Revenue Services requires taxpayers to submit carbon offsets retirement certificates for carbon tax purposes.

In the **United States** voluntary carbon offsets (VCOs) are becoming important in the context of CSR, as companies assess and report their environmental, social, and governance goals and performance. The VCOs tax treatment depends on the taxpayer’s facts and circumstances:

deductible under Sec. 162 (as a current ordinary and necessary expense) or the cost may be capitalizable under Sec. 263 and other regulations (if the VCO provides a long-term benefit)[14]. Some companies obtain VCOs by funding projects undertaken by a not-for-profit entity, and those payments may be treated as charitable contributions.

A few caveats to contemplate

Today the nature of carbon credits is heterogeneous, and there is a lot of inconsistency among these credits. Major carbon offset programs are amending quantification methodologies to prevent over-estimation of GHG reductions and currently reconsidering the eligibility of certain project types.

Indeed, some of the projects can have additional social and environmental co-benefits, like innovation, improved energy access, biodiversity and habitat protection, job creation, education or public-health improvement for the community. However, the proper definition of the credit's co-benefits to be assessed is sometimes problematic. The types of projects that make for higher-quality carbon offsets tend to be those with the fewest co-benefits – and vice versa[15].

Final remark

Taxation may transmit an adequate signal to mobilize capital through a verifiable and environmentally robust market. It could give the necessary confidence to suppliers, investors, and lenders. Somehow, it could support the fight against climate and financial fraud by disallowing the acceptance for tax purposes of bogus carbon credits that are generated with no benefit to the climate and may create a considerable bubble. This critical situation affects every country's ability to meet its climate goals, and equally companies' credibility to achieve the frequently claimed zero (or even negative) emissions. Apart from that, the lack of transparency in the market when fixing a price could even lead to money laundering.

Hybrid systems, like the one of a carbon tax that allows the total or partial use of carbon offset credits, necessarily imply a greater administrative effort. This demands a sophisticated institutional infrastructure, high implementation costs, and a complex monitoring, reporting and verification system[16]. Notwithstanding this, an improved control in coordination with the environmental authorities could be reinforced with efficient tax measures in the context of digitalization[17]. Automation could offer timely data. Robotization of processes could trace and track projects and their related credits regularly, lowering costs and shortening terms.

The United Nations Subcommittee on Environmental Taxation has recently received the mandate by the Committee of Experts on International Cooperation in Tax Matters to further explore this topic. The international tax dialogue among developed and developing countries about it has just begun[18].

[1] PI AudIT-S project on "Legal and financial significance of sustainability audit schemes through smart data management", Spanish Ministry of Science & Innovation (PID2019-105959RB-I00) https://www.ucm.es/proyecto-audit-s/. This is a short edited version of the text previously published in Spanish: Grau Ruiz, M.A. (2022) "Los créditos por compensaciones de emisiones de CO_2 a la hora de 'descarbonizarse': el complejo debate mundial sobre el régimen tributario aplicable a los *carbon offset credits*", *Revista Técnica Tributaria*, No. 138, https://revistatecnicatributaria.com/ The author is grateful to Ezera Madzivanyika and Roman

Sankovych for their invaluable help to find useful materials.

[2] Because the marginal damage of one unit of GHG emissions is the same everywhere, reducing CO_2 emissions at a location distant from where a regulated agent is located generates the same mitigation benefit. It is this characteristic of GHGs, and the nature of the global damage of global warming, which allows for lower abatement costs through the exchange of equivalent emission reduction commitments. Pizarro, R., "Sistemas de instrumentos de fijación de precios del carbono en América Latina y jurisdicciones de las Américas relevantes", *Documentos de Proyectos* (LC/TS.2021/41), Santiago, Comisión Económica para América Latina y el Caribe (CEPAL), 2021, p.45.

[3] Article 6 of the Paris Agreement explicitly recognizes the possibility for international cooperation through the transfer of emission reductions. However, if a country allows an emission reduction to be claimed by another party, it should no longer be able to count the reduction towards its own GHG target in its pledged "contribution". The detailed rules for how corresponding adjustments will be implemented are still being negotiated.

[4] Blaufelder, C.; Levy, C.; Mannion, P.; Pinner, D., *A blueprint for scaling voluntary carbon markets to meet the climate challenge*, McKinsey Report 29 January 2021. Available at: https://www.mckinsey.com/business-functions/sustainability/our-insights/a-blueprint-for-scaling-voluntary-carbon-markets-to-meet-the-climate-challenge [accessed 10 September 2022].

[5] Broekhoff, D., Gillenwater, M., Colbert-Sangree, T., and Cage, P., *Securing Climate Benefit: A Guide to Using Carbon Offsets*, Stockholm Environment Institute & Greenhouse Gas Management Institute, 2019, p. 9. Available at: https://www.offsetguide.org/wp-content/uploads/2020/03/Carbon-Offset-Guide_3122020.pdf. [accessed 10 September 2022].

[6] Section 12K of the Income Tax Act is an incentive available for any person holding a CDM [Clean Development Mechanism] project registration while that person implements the project. Essentially, amounts received or accrued upon disposal of these CERs [Certified Emission Reductions] are exempt from normal tax and capital gains tax purposes" (Steenkamp, L.A., "To incentivise or penalise: an analysis of the proposed carbon tax in South Africa", in Weishaar, Stefan, *et al.* (eds.) *The Green Market Transition: Carbon Taxes, Energy Subsidies and Smart Instrument Mixes*, Edward Elgar Publishing, 2017. p. 51). "Under the carbon tax policy framework, firms will be able to reduce their carbon tax liability by using offset credits up to a maximum of 5 or 10 per cent of their GHG emissions, depending on the time of emissions" (Machingambi, M., "Is the use of carbon offsets in the South African carbon tax a smart mix?", in Weishaar, Stefan, *et al.* (eds.) *The Green Market Transition: Carbon Taxes, Energy Subsidies and Smart Instrument Mixes*, Edward Elgar Publishing, 2017, p. 69).

[7] "[T]he Canadian federal carbon tax and its various provincial surrogates would do well to consider the benefits of the South African offset allowance". Gilder, Andrew, and Geoffrey Stiles.,"Comparative Approaches to Carbon Taxation in Canada and South Africa", *Carbon & Climate Law Review* 13.4. 2019, pp. 270-279.

[8] A quality offset credit must represent at least one metric tonne of additional, permanent, and otherwise unclaimed CO_2 emission reductions or removals. And should come from activities that do not significantly contribute to social or environmental harms.

[9] When the carbon tax was established, it focused on estimating the emissions at source level in order to be able to collect it. The advantage of this design is that it has not only allowed for the development of the institutional infrastructure, but also allows for an easier evolution to complementary systems such as offsets or even a tradable emission permits system. Pizarro, R., cit., p.13 and p.68.

[10] The GHG emission reductions must come from mitigation initiatives implemented in the national territory using certification programmes or carbon standards that have public registries and have implemented certain methodologies. The Certificate of Voluntary Cancellation shall be issued by certification programs or carbon standards and must include a report of emission reductions in accordance with the National Emissions Registry. These emissions or removals must be cancelled in the GHG source certification programme prior to issuance in the National Emissions Registry (Decree 926 and Resolution 1447 of 2018). The Decree 926 establishes that both entities that register emissions and reductions must be verified by the National Accreditation Organisation of Colombia, subscribed to the International Accreditation Forum, and that the accreditation or verification programme follows the requirements of ISO 140659. Pizarro, R., cit., pp. 64-65.

[11]Lucatello, S., *Towards an Emissions Trading System in Mexico: Rationale, Design and Connections with the Global Climate Agenda. Outlook on the first ETS in Latin-America and Exploration of the Way Forward*, Springer, Cham, 2022. https://doi.org/10.1007/978-3-030-82759-5. https://link.springer.com/content/pdf/10.1007/978-3-030-82759-5.pdf.

[12] They must be developed in Mexico and not emitted before 2014, they ought to be sold on the European Emissions Market, and they need to address post-Kyoto goals. In 2013, a voluntary carbon exchange, MEXICO$_2$, was established to trade carbon credits as a potential means to comply with the carbon tax. In December 2017, the rules for CERs were published. The General Law on Climate Change also established a mandatory GHG reporting system –the National Emissions Registry (RENE), expandable to include the voluntary registration of offsets projects based in Mexico, and subsequently the certification. Pizarro, R., cit., p. 70.

[13] Modise, D., "South African Carbon Offsets Programme", Carbon offsets workshop, Mineral Resources and Energy Department, Republic of South Africa, not dated. Available at: http://www.energy.gov.za/files/COAS/2020/South-African-Carbon-Offsets-Programme.pdf [accessed 10 September 2022].

[14] White, C., "Voluntary carbon offsets: The evolution of a business expense", *The Tax Adviser*, Vol. 53, No. 1, American Institute of CPA's, 1 January 2022, pp. 18–24.

[15] Broekhoff, D. *et al.*, cit., p. 7.

[16] There are different hybrid carbon pricing instrument systems. The 'pure' CPIs are CO_2 tax and ETS with property rights. As modifications to both instruments are introduced, they become closer and comparable. A tax with offsets is closer to an ETS system than a tax. Indeed, in the limit, an ETS with no auctioning and without a secondary market, where permits are surrendered at a minimum price is a tax, whereas a tax where permits can be credited or offset with emission reduction allowances completely, is an ETS. Hybrid systems allow incorporating the advantages and mitigating the disadvantages of both instruments. […] In the case of taxes, or highly regulated ETS systems, abatement costs will ultimately be determined by the regulator. Pizarro, R., cit., p.19.

[17] To identify trustworthy sources of carbon credits, meta-registries could enable the creation of standardized issuance numbers for individual projects, similar to the International Securities Identification Number (Blaufelder, C. *et al.*, cit., p. 6).

[18] Committee of Experts on International Cooperation in Tax Matters: report on the 24th session (virtual session, 4-7 and 11-12 April 2022) E_2022_45_Add.1–E_C.18_2022_2-EN More information is available at: https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2022-03/CRP.9%20Environmental%20Taxation.pdf https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2022-06/2208552S.pdf [accessed 10 September 2022].

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