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THE PARIS RULEBOOK AND ITS IMPLICATIONS FOR CARBON CREDIT MARKETS

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Companies around the globe are increasingly committing to achieving net-zero carbon emissions, sometimes through a regulatory nudge and sometimes voluntarily. Carbon credits will be a key element of the net-zero toolbox, allowing companies to offset emissions they cannot yet cut. The carbon credit market is expected to grow significantly in the coming years, with the voluntary carbon market potentially growing from the current $1 billion per year to $50–100 billion by 2030.[1]

There are opportunities and risks associated with carbon credits. If carbon credit projects are properly run, credits will lower overall global emissions. When carbon credits are generated in developing countries, they may also contribute to other sustainable development goals. Carbon credits can generate these positive outcomes only when the integrity of the credits is ensured. The regulation of carbon credit markets is limited and fragmented, so there are justifiable concerns that some credits may amount to little more than greenwashing.

To address some of these concerns, the international community took significant steps at the Glasgow Climate Change Conference in 2021 to bolster the integrity of credits. Countries adopted the so-called Paris rulebook, which provides new rules on both procedures and benchmarks for credits (e.g. on government approvals; methods for measuring emission reductions; and monitoring, reporting, and verification). The rules aim to ensure that carbon credit projects genuinely lead to a measurable reduction in global emissions, and they add transparency to the process.

Early signs suggest that the new rules will improve the integrity of carbon credits and, over time, may reduce fragmentation. When successfully implemented, the rules will help carbon credits to deliver on their potential to reduce global emissions, encourage companies to invest in these instruments as part of their net-zero pathway, and provide important investment opportunities for investors to finance credit-generating projects.

Given the nature and scale of the challenge and the lack of clarity on some aspects of the Paris rulebook, the rules are complex and difficult to navigate in practice. This article introduces carbon credit markets, the Paris rulebook, and the rulebook's impact on the supply of, and demand for, carbon credits.

Carbon credit markets in a nutshell

Carbon credits are issued as a part of a project in a 'host' country to reduce or remove emissions. Each credit confers a right to compensate a certain amount of carbon emissions (usually one tonne per credit) and is tradable. Credits can be purchased by a company or a country, in a compliance market or a voluntary market.

- In a compliance market, entities purchase credits that can be used to meet obligations to account for emissions under (1) international schemes, e.g. by countries to meet their Nationally Determined Contribution (NDC) under the Paris

[1] See Credit Suisse (2022), Treeprint: Carbon Markets, the Beginning of the Big Carbon Age.

Agreement or by airline operators to offset emissions under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), or (2) national schemes, e.g. by companies seeking (a) to reduce their liability under an emissions trading scheme (ETS) or a carbon tax or (b) to meet mandatory offset obligations.

- In the voluntary carbon market (VCM), companies purchase carbon credits to support so-called voluntary claims—that is, voluntary net-zero pledges, which are called 'offset claims'—or to show support for emission reduction projects, which are called 'impact claims'.

The Paris rulebook in a nutshell

The Paris rulebook develops two approaches for trading carbon credits internationally.

- The Cooperative Approach (Article 6.2) applies when countries trade carbon credits between them; and, according to most stakeholders, also when the host country allows another country or company to use credits, even if the host country has no agreement with another country. As an example of the Cooperative Approach, Switzerland and Peru signed an agreement for Swiss public or private entities to finance credit-generating projects in Peru.[2] Switzerland entered into this agreement to provide offsets to Swiss sellers of fossil motor fuels, which are obliged, under Swiss law, to offset part of the emissions resulting from the use of those fuels in Switzerland. The credits purchased by these companies, and redeemed to meet their Swiss offset obligations, will ultimately be used by Switzerland to meet its NDC targets.
- The Sustainable Development Mechanism (SDM) (Article 6.4) establishes a supranational scheme for the registration and approval of credit-generating projects. The SDM Approach succeeds the Kyoto Protocol's Clean Development Mechanism, which stopped registering new projects at the end of 2020.

For each approach, the Paris rulebook sets out core substantive and procedural requirements to ensure the integrity of the credits—credits that contribute meaningfully to reducing overall global emissions.

What are the core requirements under the Paris rulebook?

1. **No double counting:** A carbon credit can be counted only once. The host country may formally agree not to use the credit to meet its own NDC and, instead, allow the credit to be used for other carbon mitigation purposes (e.g. by another country to meet its NDC or by a company in another country). These credits are called 'adjusted' carbon credits. The adjusted credit is not counted by both the host country and the company or other country.
2. **Additionality:** A credit-generating project must result in emission reductions or removals that would not have occurred in the absence of the projected income stream from the sale of the credits generated by the project. This requirement ensures that a project has a real—and additional—impact on lowering emissions in the host country, irrespective of who actually uses the credit. The SDM Approach has more detailed requirements on how to calculate the quantity of emissions reductions.

What are the key differences between the two approaches in the Paris rulebook?

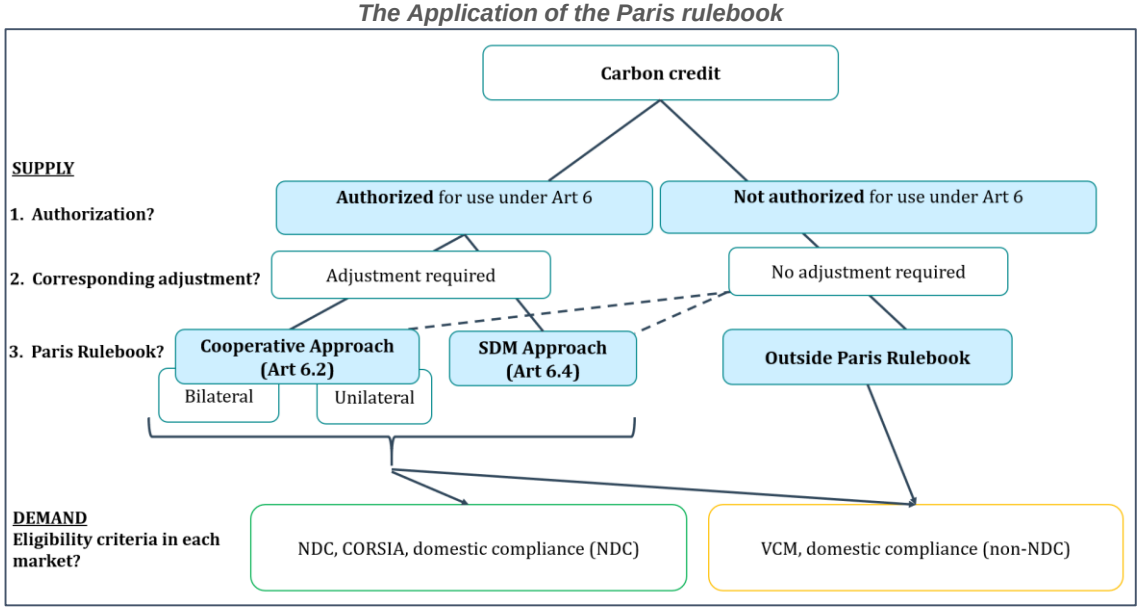
1. **International approval:** Under the Cooperative Approach, the credit-generating project is run with the approval of the host country, but without the approval of an international supervisory body. Although there is no international body, parties must meet detailed transparency and reporting requirements, with review by independent technical experts, who can make (nonbinding) public recommendations. In contrast, under the SDM Approach, there are extra layers of supervision: A project needs to be approved by a newly created international supervisory body, which acts on the basis of recommendations made by an independent verification body.
2. **Mandatory levies:** Under the SDM Approach, mandatory levies totalling 7 per cent are charged on carbon credits. The levies are used to support climate adaptation in developing countries (5 per cent contribute to the United Nations Framework Convention on Climate Change Adaptation Fund) and to guarantee additionality (2 per cent are cancelled). Mandatory levies are not imposed under the Cooperative Approach, although they are strongly encouraged.

[2] The list of Switzerland's agreements on the implementation of Article 6 of the Paris Agreement is available here: https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/staatsvertraege-umsetzung-klimauebereinkommen-von-paris-artikel6.html.

The impact on the supply of carbon credits

The host country plays a critical role in triggering the Paris rulebook, and thereby in determining the type of carbon credit that will become available on the market. As visualized in the figure below (which depicts one possible reading of the rulebook, endorsed by some key stakeholders), the host country decides whether the rulebook applies, and if so, which approach under the rulebook applies. The host country's decisions will affect the value and possible uses of the resulting carbon credit.

The Application of the Paris rulebook



Adjusted carbon credits

If the host country authorizes the international transfer of carbon credits under Article 6 (so-called internationally transferred mitigation outcomes or ITMOs), the Paris rulebook applies and the host country accepts the obligation *not* to use the credit to meet its own NDC (to avoid double-counting). The host country, instead, allows the credit to be used for carbon mitigation purposes by another country (to meet its NDC) or by another entity (a company to meet CORSIA requirements or domestic compliance requirements, or for voluntary purposes). The host country could specify which types of use are allowed.

Concretely, in a letter of authorization, the host country commits to make a corresponding adjustment (to adjust its emissions and removals in its accounts so that they do not count toward its own NDC), and to specify which types of use are allowed. With the adoption of the rulebook, it is expected that more host countries will put the institutional arrangements in place to deliver a letter of authorization, and to meet the rulebook's requirements.

An adjusted carbon credit could result from the Cooperative Approach or the SDM Approach.

1. An adjusted carbon credit could result from **the Cooperative Approach**, based on a bilateral agreement with another country, or based on a unilateral decision by the host country. Bilateral agreements could require registration by a private carbon crediting registry, or not. The bilateral agreement between Switzerland and Peru does not, for instance, require such registration. Those projects need to fulfil the Article 6.2 requirements, as well as additional substantive and procedural requirements set out under the Switzerland–Peru Agreement (e.g. the project needs to prevent social conflict and respect human rights). If the Cooperative Approach is based on registration under a private carbon-crediting registry, the project must also fulfil any additional substantive and procedural requirements under the program at issue (these requirements, as explained below, differ substantially among programs). A number of programs, like Gold Standard and Verra, are in the process of strengthening their requirements to provide adjusted carbon credits consistent with Article 6.2.
2. Alternatively, the host country could trigger **the SDM Approach**, once it becomes operational. The project must then fulfil the Article 6.4 requirements. It is not yet clear how successful the SDM Approach will become. The procedural and substantive requirements are much more rigorous than those of the Kyoto Protocol's Clean Development Mechanism, which was perceived as lacking sufficient integrity. Some acquiring countries, like Switzerland, may also see value in

the SDM Approach, as an alternative to developing further bilateral agreements; and host countries could, individually or collectively, agree to promote the SDM Approach by triggering its application. That said, some host countries, and other stakeholders, may prefer the Cooperative Approach because the requirements might be less burdensome and mandatory levies do not apply, while the carbon credits would still be considered 'Paris proof' when they meet the Article 6.2 requirements. To maximize its appeal, the SDM Approach needs to be implemented in an efficient way, whilst guaranteeing the integrity of the carbon credits.

Unadjusted carbon credits

If the host country does not authorize the international transfer of carbon credits under the Paris rulebook (the host country takes a negative decision, or no decision), there is no requirement to apply the rulebook, and no requirement to make a corresponding adjustment. In these circumstances, the host country could use the emission reduction or removal to meet its own NDC. In addition, the unadjusted carbon credit could still be sold on the market, but could not be used for all purposes. An unadjusted carbon credit could not be used by another country to meet its NDC, or by a company to meet CORSIA requirements, or under a domestic compliance scheme in an acquiring country that uses the carbon credit to meet its NDC. Unadjusted carbon credits could, at present, still be used by companies for any voluntary purposes (in the VCM), and under a domestic compliance scheme, in an acquiring country that does not use the carbon credit to meet its NDC.

Unadjusted carbon credits will usually be registered by a private carbon crediting registry.[3] The procedural and substantive requirements, and the resulting quality of carbon credits, differ substantially among programs.[4] At present, there are no unified global guidelines or regulations mandating the quality of credits provided under these programs. That may change. For instance, the Integrity Council for Scaling Voluntary Carbon Markets (IC-VCM) is developing voluntary guidelines to enhance the integrity of credits. These Core Carbon Principles (CCPs) may reflect elements of the Paris Rulebook, and thereby increase convergence among – and higher quality of – carbon credits. IC-VCM is expected to release draft guidelines in July 2022, and to open public consultations.

The impact on the demand for carbon credits

The Paris rulebook does not directly regulate how carbon credits could be used by companies in compliance and voluntary markets. In compliance markets, each regulator determines to what extent carbon credits can be used to meet regulatory requirements and the eligibility criteria for credits; whereas in the voluntary market, there is no international regulation or guidance on the quality of carbon credits that can be used by companies for voluntary purposes. The rulebook is, however, expected to boost further the demand for, and the integrity of, credits in both compliance and voluntary markets.

1. In **compliance markets**, national regulators sometimes allow a company to use credits to meet some or all of its obligations under a carbon tax or ETS, or impose offset obligations on their companies. Regulators may now make the eligibility criteria more demanding in light of the Paris rulebook, thereby incentivizing the use of carbon credits that comply with the rulebook. If these countries intend to use the carbon credit to meet their own NDC, they are allowed to accept only adjusted carbon credits. With the availability of high-quality credits that meet the Paris rulebook requirements, other countries with or considering a carbon tax or ETS may be more inclined to permit the use of carbon offsets, or to impose carbon offset obligations on certain industries (e.g. following Switzerland's example to impose offset requirements on mineral oil companies). Although the CORSIA scheme for offsetting emissions from international aviation already has relatively demanding rules for the quality of carbon credits, countries may enhance those standards further. Countries could also agree to subject other industries (e.g. maritime shipping) to similar international schemes.
2. In **the VCM**, increased net-zero pledges will further boost the demand for carbon credits. Private initiatives are developing guidance for buyers of carbon credits, including regarding the claims companies can make based on a carbon credit. For example, in June 2022, the Voluntary Carbon Markets Integrity Initiative released the provisional Claims Code of Practice (with public consultations until 12 August 2022; and a final Claims Code expected by late 2022 or early 2023).

[3] The rulebook seems not to exclude the possibility that a host country could trigger the SDM Approach, without authorizing use as an ITMO, and thus without the obligation to make a corresponding adjustment. Under the Cooperative Approach, it also seems possible for a host country to authorize use as an ITMO for some carbon credits resulting from a project, but not for others. In those circumstances, the host country could use the share of unadjusted carbon credits to meet its own NDC.
[4] See e.g. Öko-Institut (2022, 21 March), *Methodology for Assessing the Quality of Carbon Credits* (version 2.0).

The provisional Claims Code sets out voluntary standards for how carbon credits can be used by companies in making climate claims (such as, we are a "*net zero*" company, or we provide a "*climate neutral*" product). If a company chooses to meet the conditions in the Claims Code, the Code provides a set of VCMI climate claims or "labels" that a company could use to describe its net zero strategy (e.g., "we meet VCMI Corporate Gold"). Under the Claims Code, a company can use the VCMI labels only if it publicly commits to a net zero emission target by 2050 at the latest (covering its Scopes 1, 2, and 3 emissions), with interim targets every five years. The company's progression towards net zero must also be independently monitored. The VCMI labels allow companies that have embarked on a proper net zero pathway to use high quality carbon credits, if they wish, to offset their residual emissions. The VCMI labels will provide transparency and uniformity on climate claims, and signal that a company uses carbon credits in addition to – and not as a substitute for – emission reductions within its own value chain.

Whilst strongly debated, the draft Claims Code does not currently contain any requirements to avoid double counting of carbon credits by the company and the host country where the offset project is developed. In other words, a company could purchase and retire carbon credits which the host country also uses to meet its NDC. A company, however, needs to publicly communicate whether it retired carbon credits that avoid double- counting or not (adjusted or not).

Over time, some national regulators may also decide to regulate credits used for voluntary purposes (through, *e.g.*, corporate reporting requirements, consumer protection laws, or marketing rules). Some expect that, with enhanced integrity of carbon credits, the VCM may grow from the current $1 billion per year to $50–100 billion by 2030.[5]

As a result of these market dynamics, the Paris rulebook is expected to also have an effect on pricing. Credits that comply with the rulebook and that are adjusted will have higher integrity and are likely to be eligible for use in more markets. They can, therefore, be expected to earn a price premium.

Opportunities and risks for stakeholders

It is clear that this moment of fast-changing regulatory and market dynamics presents significant opportunities and risks for all stakeholders. Of particular note are the following:

- **Companies** have the opportunity to purchase high-quality carbon credits to meet their net-zero commitments (either voluntary or possibly mandatory). Increased scrutiny of the integrity of carbon credits by both consumers and regulators underpins the need to choose carefully the right carbon credit 'product'.
- **Investors and project developers** have the opportunity to invest in, and develop, high-quality projects, albeit with some questions as to how the regulatory and market dynamics will play out (including pricing dynamics and the liquidity/stability of the market as it grows).
- **Host countries** may seize on the opportunity to receive additional financing for carbon-reducing projects, carefully considering which carbon credit approach to apply to cut emissions and to foster sustainable development.
- **Regulators** now must further develop and implement the Paris rulebook and decide whether and how to adapt the eligibility criteria under their own domestic ETS or carbon tax schemes. Internationally, regulators must consider how the rules affect schemes like CORSIA and whether to subject other industries (e.g. maritime shipping) to similar schemes.

[5] See Credit Suisse (2022), Treeprint: Carbon Markets, the Beginning of the Big Carbon Age.