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Upscaling Green Bond Markets: The Need for Harmonised Green Bond Standards

Summary

If a 2°C-compatible pathway is to be achieved, an enormous investment gap exists and this will need to be financed both with public and private funds. Green bonds have the potential to assume a crucial role in mobilising financial funds for the low-carbon transition. First, green bonds enhance the transparency on the underlying assets by disclosing the use of proceeds. Second, with long-dated maturities, they can match the long-term nature of issuer investment horizons with investor time horizons. Third, green bonds can augment issuers' reputation. Fourth, green bonds can attract a larger and more diversified investor group.

This potential is reflected in the development of the green bond market. The annual issuance of labelled green bonds grew from USD 2.6 billion in 2012 to USD 82 billion in 2016 and in 2017 the Climate Bonds Initiative expect an increase to 150 USD billion.

According to the Green Bond Principles (GBPs) – the most widely adopted international standard – green bonds are any type of bond instrument whose revenues are used to partly or completely finance or re-finance new and/or existing "eligible" green projects.

While the green bond market has expanded sizably, one main problem in its further development is the lack of harmonised standards. Although several international and national taxonomies addressing green bond standards have improved practices around transparency, bonds structure and reporting (including the GBPs and the Climate Bonds Standard), there are no universal definitions of what constitutes a "green" bond. The architecture of green bond standards at the international and national level is fragmented. Several voluntary standards and various instruments for certifying green bonds have been established including second opinions, green ratings, and green bond indices.

On the one hand, existing standards should be better harmonised at the international and national level because different standards reduce investor confidence and increase their transactions costs. In addition, the various certification schemes for green bonds, including second opinionproviders, should be aligned accordingly. To foster efficient trading and increase liquidity in the market, harmonisation of green bond indices and green bond listings rules should be increased. On the other hand, some diversity at national levels and across different types of green bonds is needed in view of country-specific circumstances and to take into account the different purposes of green bonds. Where diverse standards are required, however, transparency into their differentiation from accepted norms must be provided.

In order to design harmonised standards, a vigorous dialogue among market participants is crucial. Annual consultation of the International Capital Market Association on the GBPs and the consultations organised by the Climate Bonds Initiative are important steps in the right direction. In the same vein, the current work of various authorities and private sector financial market actors on a "green bond term sheet" including standards for the definition, certification and validation of green bonds represents a crucial initiative.

The G20 could promote harmonisation of green bond standards by providing an important dialogue platform for public and private financial actors. Country authorities of the G20 countries could take on a frontrunner role in supporting and implementing harmonised standards for green bonds. They should better align their different domestic standards amongst each other and align them with international standards.

The potential of green bonds

The transition towards a low-carbon economy requires enormous investments. According to the New Climate Economy report of 2016 over the next 15 years around USD 90 trillion in infrastructure investment is needed for a lowcarbon climate-resilient economy (GCEC, 2016). The allocation of savings into sectors that support the green transition requires adequate financial instruments. Green bonds have an enormous potential to significantly contribute to financing this green transition.

While no universal definition for green bonds has yet been established, the International Capital Market Association (ICMA) – a group of major bonds issuers, underwriters and investors – has developed voluntary process guidelines to promote integrity in the green bonds market. According to these Green Bond Principles (GBPs), green bonds represent any type of bond instrument whose revenues are used to partly or completely finance or re-finance new and/or existing "eligible" green projects (ICMA, 2017). Hence, green bonds are self-labelled and have no legal foundation. In contrast to conventional bonds, a green bond has to use its funds for green projects that must have clearly sustainable environmental benefits.

Green bonds have a number of benefits for financing green investments. First, green bonds can contribute to supporting the sustainable development of financial markets because they provide transparency on the assets. Second, they facilitate long-term investments and can reduce the maturity mismatch of the issuers' long-term time horizons and the investors' short-term investment interests: issuers can issue long-term bonds while investors have the opportunity to sell their bonds at any time. Third, green bonds have a positive reputational effect for issuers. Fourth, green bonds can attract a larger and more diversified investor group (Berensmann, Dafe, & Lindenberg, 2017 in press).

This potential is reflected in the enormous growth of the green bond market in the previous four years. The annual issuance of "labelled" green bonds increased from USD 2.6 billion in 2012 to USD 82 billion in 2016 (CBI, 2016). For 2017, the Climate Bonds Initiative estimates an increase in green bond issuance to about USD 150 billion. However, less than 1 per cent of global bonds are green bonds (G20 GFSG, 2016).

The need to standardise green bonds

Despite the enormous growth of green bond issuance, the current lack of harmonised standards hampers its further development. Harmonised standards have the advantage of providing benchmarks for financial market participants. Moreover, harmonised standards increase transparency on the "greenness" of bonds and help investors to differentiate between green and non-green bonds. Hence, standards reduce the risk of "greenwashing", that is, the risk that their proceeds are not used to finance green projects. In this way, common standards contribute to reducing investors' transaction costs for verifying green bonds and assessing

the environmental impact of their use of proceeds. Without a clear and adequate definition of green bonds, the green bond market is unlikely to expand and appropriate environmental risk management becomes difficult (G20 GFSG, 2016).

The fragmented architecture of green bond standards

Existing green bond standards comprise various voluntary standardisation measures including criteria regarding the definition, eligibility, disclosure, transparency and impact reporting for green bonds. Despite the young market for green bonds, various different definitions for green bonds have been established at the national and international level. Similarly, different tools to certify green bonds as "green" have been implemented.

Internationally adopted standards

Among these different standards, the GBPs assume a crucial role in providing basic principles because most of the other standards are based on them. These Principles were the first to gain broad market acceptance as voluntary guidelines for issuing green bonds. They were designed by market participants (underwriting banks, issuers, investors and other intermediaries in the green bonds market), were published in 2014 and have been updated annually since. These Principles specify categories for projects eligible for green bonds financing and require transparency regarding the use of the proceeds. Their main elements are: i) the use of proceeds; ii) the process for project evaluation and selection; iii) the management of proceeds; and iv) the reporting (ICMA, 2017).

The Climate Bonds Initiative has established the Climate Bond International Standards and Certification Scheme comprising a certification process, pre- and post-issuance requirements. The criteria for specific sectors are designed by working groups of technical and industry experts that are coordinated by an advisory board of institutional investors and environmental non-governmental organisations. While these standards also incorporate the GBPs, they go further by providing detailed sector-specific eligibility criteria. In addition, these standards focus on climate policy (CBI, 2016).

National green bond standards

In addition to these internationally adopted standards, national standards have been put in place, for example in China, India, Brazil, and France. However, international and national guidelines for eligible green bond projects sometimes differ significantly. For instance, the Chinese guidelines established by the Peoples' Bank of China include some fossil fuel projects such as efficiency upgrades to coalfired power plants; however, these are excluded from the Climate Bonds Standard and from some green bond indices.

In one respect, local definitions and disclosure requirements for green assets are crucial to meeting local requirements because environmental challenges differ across countries. But in another respect, it is also important to align local guidelines with global and regional ones, in particular if international investors are involved. Differences in definitions, as in the case of China, could generate higher transaction costs because investors need to assess these various standards.

In addition, standards at the national level sometimes differ considerably. For example, China has even established different national green bonds standards. The People's Bank of China Green Bond Finance Committee launched the Green Bond Endorsed Project Catalogue in 2015. Moreover, China's macroeconomic management agency, the National Development and Reform Commission (NDRC) has established different green bond guidelines that are mainly valid for corporate bonds. The main difference between these two Chinese standards is that the Green Bond Endorsed Project Catalogue standards are more comprehensive than the NDRC's guidelines. For instance, the latter do not provide criteria for the management of proceeds or reporting (CBI and ISSD, 2016). While different guidelines could be helpful in addressing the specific features of different bond issuers, it is difficult for investors to assess the various guidelines and to verify the "greenness" of the respective bonds. In case diverse standards are needed transparency on the differences is key.

Second party opinion-providers

Likewise, the certification schemes for green bonds differ significantly. On the one hand, all certification schemes are based on the GBPs but on the other, certification schemes for green bonds vary with regard to their monitoring, their criteria and their evaluation method.

Second opinion-providers represent a different type of standard setter. Before issuing a green bond, issuers can commission a second opinion on their green bonds. These evaluators assess the green credentials and the issuance framework of the proposed bond. The main second opinionproviders tend to be research institutes or consulting agencies such as CICERO (Center for International Climate Research), Oekom, Deloitte, EY (Ernst & Young), and Vigeo Eiris. While second opinion-providers base their evaluations on the GBPs, they focus on specifying green project definitions. One main shortcoming of most second opinion-providers is a conflict of interests as opinion-providers are paid by the issuer. Moreover, opinion-providers do not have a predefined standard in place, setting out what is and what is not green. Hence, there is a great deal of variance between opinionproviders and between bonds around what is considered "green". CICERO has tried to solve this problem by rating each bond as light, medium or dark green.

Credit-rating agencies

Credit-rating agencies assume a crucial role in promoting green bond standards because they monitor and verify green bonds continuously. This is important for investors with a medium-term investment horizon (Ehlers & Packer, 2016). Indeed more rating agencies have started to evaluate green bonds since 2014 such as Moody's and Standard & Poors (S&P). As in the case of conventional bonds, rating agencies use different methodologies and criteria to evaluate green bonds. Since most of these assessments have not been implemented over a longer time period, it is too early to evaluate the different methodologies. To an extent, rating agencies have aligned their assessments because they base their evaluations on the GBPs; however, it would be helpful for issuers and investors if rating agencies aligned their methodologies and criteria more closely.

Stock exchanges

Stock exchanges constitute important actors in the developing green bond markets because they can provide market liquidity. In addition, stock exchanges have the advantage of providing regulated and transparent markets on which green bonds can be traded. In this way, exchanges can leverage existing standards and contribute to harmonising standards. Various stock exchanges, including those in London, Luxemburg, Oslo, Stockholm and Mexico, have established different requirements for issuers that have to be incorporated in green bonds.

The frontrunners among green stock exchanges – London, Luxembourg and Oslo – base their standards for issuing green bonds on the GBPs and the Climate Bonds Standards. Luxembourg Green Exchange – the pioneer in listing green bonds – has put in place mainly three eligibility criteria for listing bonds. First, the disclosure of information relating to the planned use of proceeds can be based either on the GBPs, the Climate Bonds Standards or equivalent. Second, ex-ante external reviews can be provided by either second opinion, certification, verification or rating report by a qualified third party. Third, the issuer needs to commit to annual postissuance reporting. Green bonds listings are subject to similar requirements at the London and Oslo stock exchanges (CBI, 2017; SSE, 2016).

Index providers

Index providers can support green bond standardisation by including or excluding entities from their indices based on certain rules. In this way, providers of green bond indices certify and continuously monitor them. Important green bond indices have been issued by Barclays MSCI, Bank of America Merrill Lynch, S&P, and Solactive. While each index adopts different methodologies for selecting green bonds for the index, their assessments have all been based on the GBPs and some of them also adopt the Climate Bonds taxonomy (Ehlers & Packer, 2016; OECD, 2017).

In spite of adopting the GBPs, one main challenge of green bond indices has been to define what constitutes green bonds. Assessments of green bond indices become more and more detailed in this regard. The S&P green bond indices represent good examples for this development: these indices not only adopt the GBPs but are also subject to a detailed assessment of labelled green bonds by the Climate Bonds Initiative. In addition, these indices use specific guidelines for their financial criteria such as the requirement for new issues to be rated at least by one rating agency, or that issuer concentration is constrained to 10 per cent for each issuer (S&P, 2017).

How to establish a coherent international framework for green bond standards?

Green bond standards assume a crucial role in transmitting information on green bonds from issuers to investors and thereby increasing market efficiency. On the one hand, some diversity is needed at national levels to consider countryspecific circumstances and across different types of bonds if the different purposes of green bonds are to be taken into account. On the other hand, this existing diversity of standards could unsettle investors, reducing their confidence in the environmental integrity of green bonds and increasing their transactions costs. However, where diverse standards are needed, transparency on the differences is crucial.

While the GBPs have assumed the role of providing a basis for the green bond certification, one main problem has been the lack of clarity in the GBPs around the question "What is green?". The Climate Bonds Standards have assumed this role by providing a more granular assessment in this regard. Likewise, at the international and national level existing standards for green bond listings and green bond indices (OECD, 2017) as well as certification schemes need to be better harmonised.

An active dialogue among market participants could support the design of harmonised standards. The annual consultation at the ICMA on the GBPs and the consultations organised by the Climate Bonds Initiative represent good examples. Currently, authorities in consultation with the private sector are discussing a green bond "term sheet" including standards for the definition, certification and validation of green bonds (G20 GFSG, 2016; OECD, 2017).

The G20 takes on a crucial role in promoting standards for green bonds at the G20 as well as at the country level by providing an important dialogue platform for public and private financial actors. Country authorities of the G20 could act as frontrunners in supporting and establishing harmonised standards for green bonds.

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