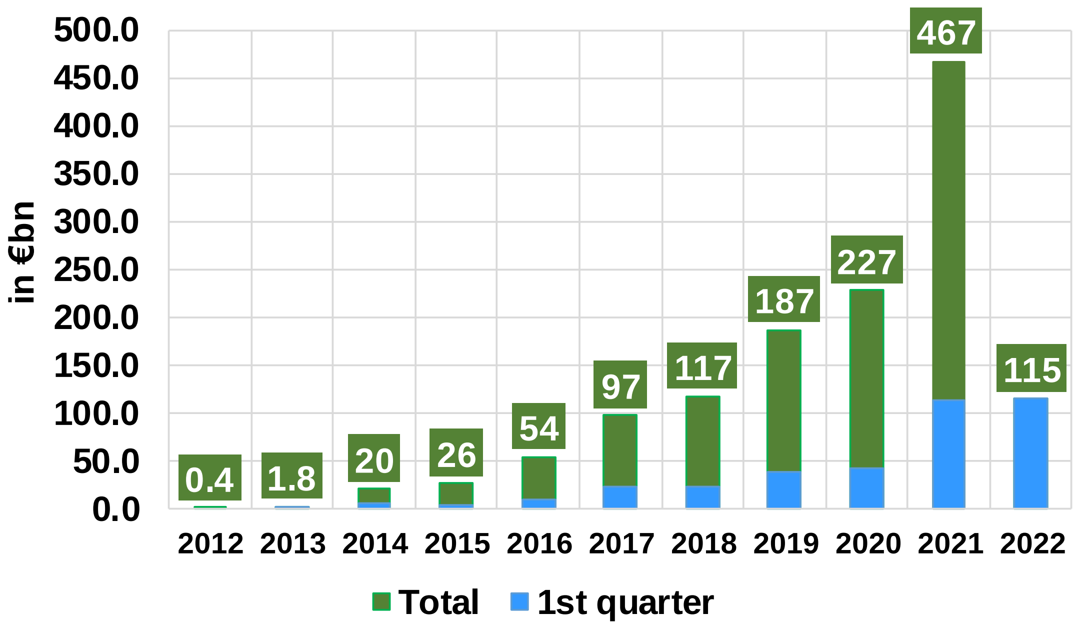
Green bonds: is their growth sustainable?

By Tamaki Descombes, Antoine Kergadallan and Quoc-Trieu Le

Issuance of green bonds has been growing at a fast pace in the past 10 years, mainly under the impetus of the European Union and its Member States, which are the world's largest issuers. We take a closer look at this market and explore the challenges it poses, together with the prospects going forward: interactions with monetary policy, investor appetite, greenwashing risk, etc.

Chart 1: Green bonds issued in accordance with the International Capital Market Association's principles

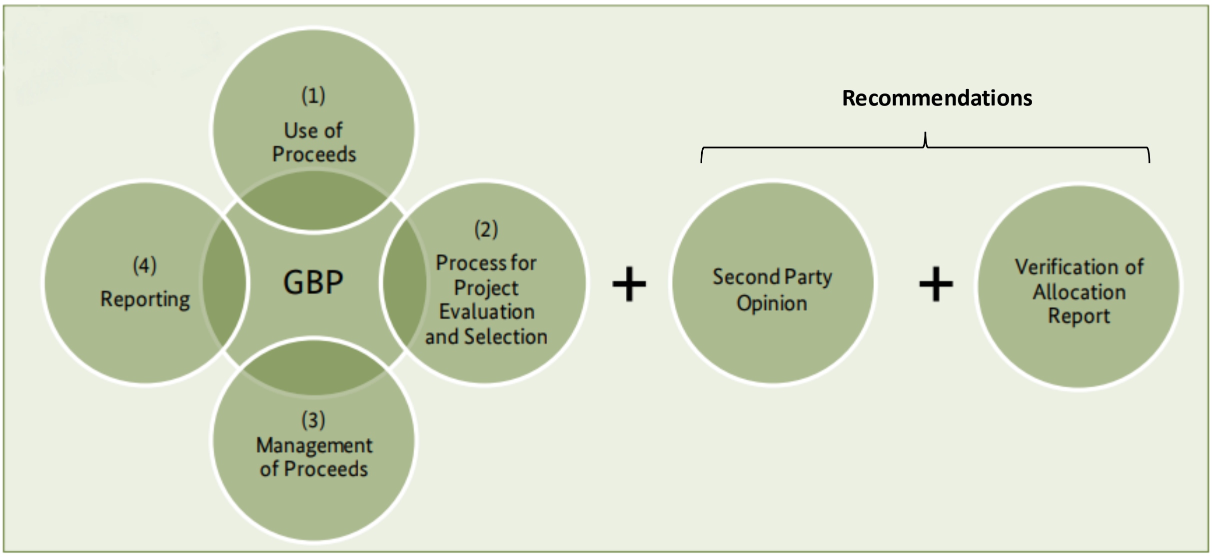


Source: BloombergNEF, authors' calculations

What is a green bond?

The market considers a bond as 'green' when its issuer specifically commits to finance sustainable projects aiming at a net-zero carbon economy and protect the environment. However, there is currently no legally-binding definition of what is seemed as "green" and therefore the market essentially relies on a self-imposed and non-binding framework known as the **Green Bond Principles**. Created by the International Capital Market Association (ICMA), the GBPs' mission is to promote well-functioning international debt markets (Chart 2):

Chart 2: ICMA green bond principles and recommendations



Source: ICMA, Banque de France

Since there is no legal obligation, each issuer can freely interpret these principles and choose whether or not to apply them. This has prompted the European Union to begin work on its own regulatory framework to create a new industry standard (see below).

A market propelled by strong growth in the last 10 years

The green bond market (as defined by the four ICMA principles) has grown significantly since the European Investment Bank issued the very first green bond in 2007. The amounts issued have soared from EUR 2 billion in 2013 to EUR 467 billion in 2021 (Chart 1). After stalling in 2020 due to the COVID-19 crisis, green bond issues increased twofold in 2021, making up around 5% of total global bond issues for the year, and are expected to climb even higher in 2022.

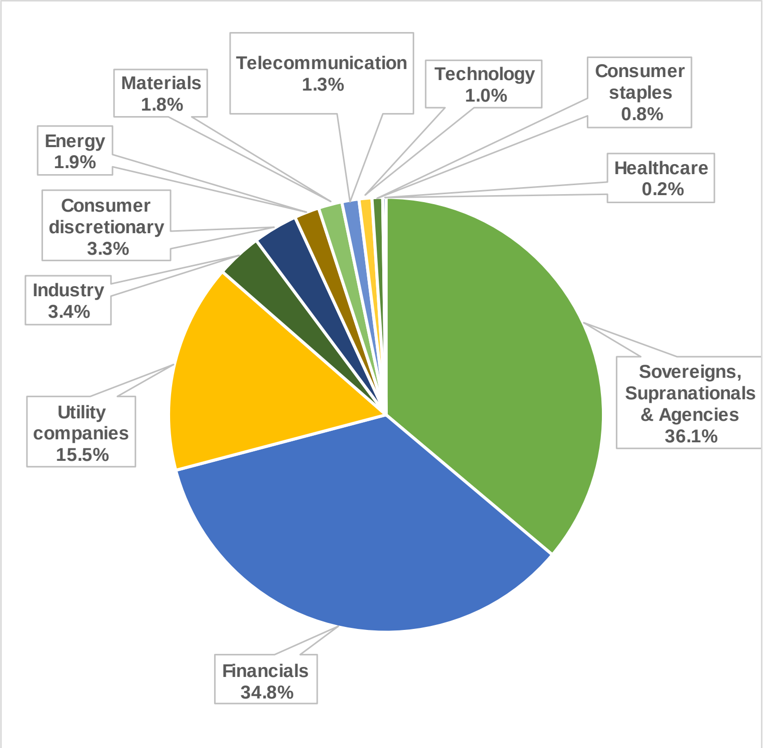
Three main issuer types dominate the green bond market (Chart 3):

(i) Public issuers or 'SSAs' (Sovereigns, Supranationals & Agencies), which include supranational organisations, government agencies and national Treasuries. The French State launched the world's first sovereign green bond (as defined by the ICMA) in January 2017 and, at the end of March 2022, was the sovereign issuer with the largest amount of green bonds outstanding (EUR 45.1 billion).

(ii) Private non-financial issuers, more than half of which are utility companies (e.g. Engie, EDF, EDP and TenneT).

(iii) Private financial issuers, which borrow on the markets in order to finance their customers' green projects (China's Industrial Bank, the German *Landesbanken*, etc.).

Chart 3: Sector breakdown of green bond issues since 2012

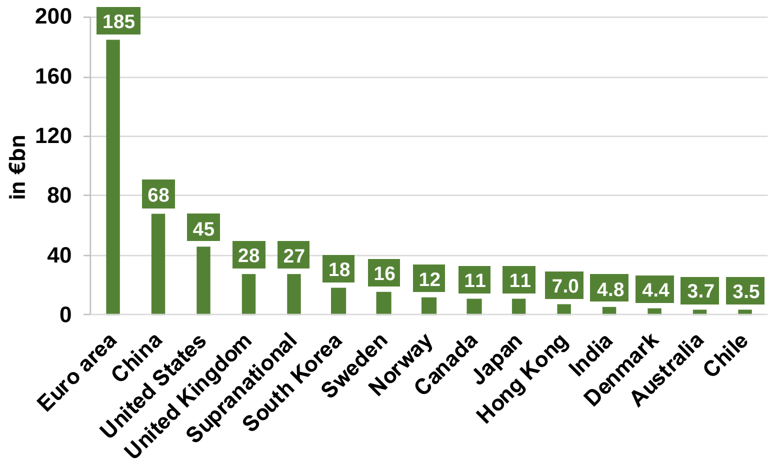


Source: BloombergNEF, Banque de France

New major institutional issuers in 2021 gave the market further depth and appeal: the UK, Italian and Spanish Treasuries issued their first green bonds in 2021. Added to this, the European Union plans to become the world's leading green bond issuer with EUR 250 billion earmarked between now and the end of 2026 - of which EUR 14.5 billion issued so far - as part of the Next Generation EU (NGEU) financing programme (see Le Quéau, Madeline and Sabalot, 2022).

The euro area (excluding NGEU securities, treated as supranational debt) was therefore the world's largest green bond issuer in 2021, with a total of EUR 185 billion, accounting for 39% of the global market (Chart 4). Germany (EUR 59 billion) and France (EUR 42 billion) were the largest contributors. The other major issuers were China (EUR 68 billion, up from EUR 15 billion in 2020), the United States (EUR 45 billion, up from EUR 25 billion) and the United Kingdom (EUR 28 billion, up from EUR 4 billion).

Chart 4: Green bond issue volumes in 2021 (all issuers combined) by geographical region



Source: BloombergNEF, Banque de France

Challenges and outlook for the green bond market

This market is a key focus for **many central banks** amid questions surrounding the financing of the transition to a net-zero economy and consider the role monetary policy can play in this (Dees, Ouvrard and Weber, 2022, Villeroy de Galhau and Dees, 2022). The fight against climate change is a key issue when it comes to monetary policy. First, in terms of central bank price stability mandate, given that the transition to a greener economy could put upward pressure on prices (see Schnabel 2022). Secondly, through the incorporation of 'greener' criteria into monetary policy tools (refinancing operations, collateral rules, asset purchase programmes, see the report published by the NGFS - Network of central banks and supervisors for Greening the Financial System).

In parallel, some issuers see these instruments as an opportunity to send a powerful signal to the market that they are working to combat climate change, one that could eventually broaden their investor base, improve reputation, and secure a cheaper source of financing (higher bond prices and lower yields). A number of studies have been conducted to determine whether green bonds trade at a higher price than conventional bonds (and therefore carry lower yields, i.e. a '**greenium**'). While the findings vary for the market as a whole, given how hard it is to compare securities, Pietsch and Salakhova (not yet published) have found evidence since the Covid crisis that suggests a statistically-significant 'greenium' for euro-denominated green bonds.

However, the appeal of this market and the fact that there is no binding regulatory framework for green bonds may lead to suspicions of 'greenwashing' (false green claims). In order to provide a better framework for green bond issues, the European Union is currently working on an EU Green Bond Standard and a European taxonomy. The EU Green Bond

Standard draws inspiration from the GBPs and introduces more stringent transparency and external review requirements. The EU Taxonomy defines a list of sustainable economic activities aiming to better direct investments towards activities aligned with the Paris Agreement (the delegated act should enter into force in mid-2022).

How the market react to this new body of regulations is still unclear as some investors may opt for other debt instruments fearing of being legally exposed if they fail to comply with the requirements. As evidence of this, some analysts have been seeing strong growth in **Sustainability-Linked Bonds** since 2021. These debt instruments are linked to more general sustainable development goals, which may not be deemed as restrictive as those set for green bonds.