

An illustration of a woman in a black dress and high heels, carrying a yellow watering can, watering a small tree with a green trunk and branches. The background is a bright green field with rolling hills and a blue sky with white clouds. The woman is walking from left to right, and the watering can is tilted, pouring water onto the tree. The tree has several green leaves and a small green flag on its branch. The overall style is modern and minimalist.

(In)credibly green?

How investors seek
orientation in the booming
green bond market

By Pia Barth

Climate protection has finally arrived in the world of finance. At least, that is the impression awakened by the growing range of »green bonds« on offer. These securities raise capital for industries and projects that are explicitly climate-friendly. However, can investors be sure that they are investing their money in a climate-friendly carbon footprint and not aiding and abetting the »greenwashing« of a company which is rapidly depleting natural resources? Economist Julia Kapraun has looked at the credibility of green bonds.

A paper written 54 years ago by Kenneth Boulding, an economist nominated several times for the Nobel Prize who held 33 honorary doctorates and was an acknowledged maverick in his field, starts with the words: »We are currently in the middle of a long process of transition, in which people's perception of themselves and their environment is changing.«

Primitive men imagined themselves, he said, to be living on a virtually illimitable plane and believed they could always go somewhere else if things became difficult. No sooner did the natural environment deteriorate than man, with the seemingly endless horizon in sight, simply moved on. Meanwhile, we know that the Earth is a sphere, that is, a system which for us is relatively limited and closed. The benchmark of our type of economy is, however, more and more consumption, more throughput, more use of resources – instead of the nature, extent and quality of consumption as well as the state of people's bodies and minds. »Especially economists,« commented Boulding laconically in 1966, »at least the majority of them, have not managed to draw fundamental conclusions from this,« that is, from the fact that the Earth is a sphere.

From niche product to green bond hype

The first green bonds were issued in 2006. The European Investment Bank, and a short time later the World Bank, offered what were known as »Climate Awareness Bonds«, the purpose of which was to finance renewable energies and projects aimed at enhancing energy efficiency. Investors now had the possibility to invest in projects for a certain period of time and at a fixed interest rate that pursued

specific ethical, ecological or social objectives or even to withdraw their money from projects that depended on fossil fuels. At this point in time, green bonds were a niche product.

Ten years later, bonds to the value of \$81 billion satisfied increasing demand – the UN Climate Conference in Paris in 2015 and the growing attention paid by international organisations and investors towards climate change were making an impact. The aim was to redirect international financial flows away from oil, gas and coal in the direction of climate-friendly projects, for example. Green bonds were considered important catalysts and potentially the linchpin for shifting the global economy towards less carbon use. If you do not act ecologically, you will lose out economically – this notion began entering the heads of entrepreneurs, development banks and commercial banks, companies or governments that otherwise did not have much to offer in the way of »green«.

But just how credible are »green bonds«? Can investors rely on all bonds with a »green« label actually financing climate-friendly and environmentally compatible projects? She can remember, says Julia Kapraun, author of the study »(In)-Credibly Green: Which Bonds Trade at a Green Bond Premium?«, that »years ago, staff in a company would sometimes run around like headless chickens to see if green labels fitted a product.« Just as issuers frantically dash about to find climate-friendly companies, investors search for criteria that underpin the credibility of such new bonds. First scientific studies accompanying the green bond boom, which compare the prices and return on investment of green bonds with those of conventional bonds, draw a contradictory picture. Some conclude that investors

Ranking of countries by environmental performance

Country	Rank	EPI Score
Denmark	1	82,5
Luxembourg	2	82,3
Switzerland	3	81,5
United Kingdom	4	81,3
France	5	80,0
Austria	6	79,6
Finland	7	78,9
Sweden	8	78,7
Norway	9	77,7
Germany	10	77,2

Which country has the most environmentally friendly financial market policy? Yale University publishes an annual ranking of 180 countries on the basis of a comprehensive catalogue of criteria.

Source: <https://epi.yale.edu/epi-results/2020/component/epi>, status: October 2020.

invest in green bonds regardless of their profitability. Others stress that green bonds only score if they are on a par with their conventional counterparts in terms of revenue. Some analyses focus on the primary market, that is, the playing field of the major stakeholders who, due to the booming demand, are scouring the markets for sustainable bonds. Others examine the interest in green bonds on the secondary market, where above all smaller companies and pri-

vate investors are underway. However, the samples studied are often too small, the bonds too heterogeneous and the methods used too different, says Julia Kapraun, to be able to make any reliable statements. This was what she and her co-author Christopher Scheins wanted to change with their study.

Who defines what is »green«?

Each company, each bank, each country can set down its own criteria for its green bonds. This can include dispensing with fossil energy sources as well as actively promoting wind power or the development of an electric vehicle or funding photovoltaics. As of late, institutions such as the International Capital Market Association or more recently the European Union are attempting to assure the quality of green bonds through a standard catalogue. Applying these guidelines is, however, voluntary. Under these circumstances, it is difficult to dispel the suspicion that green bonds are more a case of green marketing or »greenwashing«.

Still, the Environmental Performance Index (EPI) of Yale University gives prospective buyers a decision-making tool with which to evaluate those countries which issue bonds, explains Kapraun in her study. 180 countries are screened and evaluated in terms of the weight they attach to environmental policy and the implementation of environmental measures. China, for example, ranks only 120th in the country index – but is one of the top three issuers on the green bond market. With Denmark, Luxembourg and Switzerland at the top, European countries rank in the top 20 places – but this does not rule out, says Kapraun, that they might also have dubious, i. e. less sustainable, bonds in their portfolio.

Big players are ready to run the risk of higher prices

The criteria for a bond's credibility are therefore wide and varied, and the situation is complex. Do investors prefer green bonds with no »ifs or buts,« that is, are they willing to accept a lower return on investment than from conventional bonds or to pay a higher premium? Does the primary market with the major financial service providers, whose abundant portfolio of green bonds boosts their reputation and satisfies booming demand, differ from the secondary market, whose investors possibly only have return on investment in mind or else shy away from green bonds out of uncertainty? These are questions that economist Julia Kapraun explores in her study within the context of investors' readiness to pay a premium for green bonds.

In so doing, she looks at the total number of green bonds offered up until the end of 2018 where data are available. She then compares

IN A NUTSHELL

- Green bonds are considered a linchpin for shifting the global economy towards less carbon use.
- However, there is no binding definition of what is »green«: Each company, each bank, each country can set down its own criteria for the green bonds it issues.
- Investors are willing to pay a higher price for green bonds. However, in the jungle of bonds on offer, they search for criteria that underpin credibility.
- State institutions, countries and supranational organisations enjoy greater credibility as bond issuers than do companies.
- Investors trust green bonds issued by companies above all when these are certified, that is, have been checked by a third party.

Leading companies in the green bond market

(Status: End of 2018)

Bond issuer	Vol. in \$bn	Number of green bonds	Sector	ESG-rating
European Investment Bank	40.19	49	Banking Services	88.09
WindMW GmbH	29.37	80	Electric Utilities & IPPS	Unavailable
Électricité de France S.A.	26.19	18	Multiline Utilities	86.25
IBRD	17.00	158	Banking Services	67.31
Industrial Bank Co Ltd	16.93	7	Banking Services	53.77
KfW	14.74	18	Banking Services	93.26
Mexico City Airport	12.00	8	Collective Investments	Unavailable
International Finance Corp	8.46	77	Investment Banking & Investment Services	78*
NRW Bank	7.86	10	Banking Services	77*
Shanghai Pudong Development Bank Co Ltd	7.59	3	Banking Services	50.66

ESG Rating: August 2020, source Sustainalytics; *Last available data as per 1 July 2019.

How sustainable companies really are: Environmental institutes, sustainability agencies and auditors compile annual ratings, such as the ESG Rating (Environment, Social, Governance), to help evaluate corporate bonds. Service providers, such as Sustainalytics, MSCI or S&P, rate companies according to specific criteria on an ascending scale from 0 to 100, depending on how serious their declaration of intent is with regard to sustainability. The 2020 list shows that companies with the best »green« image compete in the marketplace with less convincing rivals.

these with corresponding conventional bonds. In the secondary market, these are also issued by the same body.

One result of her study: Above all in the primary market, investors are indeed prepared to pay a higher price for a green bond, that is, to earn up to 0.4 per cent less return on investment, than for a comparable conventional bond. The big players apparently want to make a contribution to a lower carbon footprint and seem to expect an image boost for themselves from holding a varied assortment of green bonds.

The level of acceptance towards green bonds is high – yet subject to certain conditions. One of the criteria is the credibility of the issuer: While major banks, financial institutions and energy companies as well as state institutions are among the top bond providers, players in the primary and secondary markets place far more trust in state institutions, countries and supra-national institutions than in corporations. In fact, they are even prepared to pay 0.2 to 0.4 per cent more for their securities.

Certified bonds are more successful

Moreover, in the case of corporations, investors are only prepared to forego a return on investment if the bond exceeds a certain size. Many want to get involved »in a big way«, meaning that they would like to exert as much positive influence as possible on the environment. This trust is, however, coupled with the condition that the corporate bond has been certified as »green« by a third party, e.g. an auditing company, environmental institute or sustainability rating agency (such as Sustainalytics, Cicero, Vigeo Eiris, etc.). A company that issues its

bonds without third-party certification loses out: Here, the return on investment has to be above average, e.g. ten basis points (0.1 per cent) above comparable types of investment. »Investors are by no means so naive that they trust a green label unreservedly,« summarises Julia Kapraun.

However, green bonds traded on what are known as »green exchanges« are apparently given the benefit of the doubt. These are exchanges that include a segment for sustainable investment products in their portfolio. They contribute to the transparency and liquidity of the green bond market by ensuring that bonds listed there are reliable, that is, controlled. Many

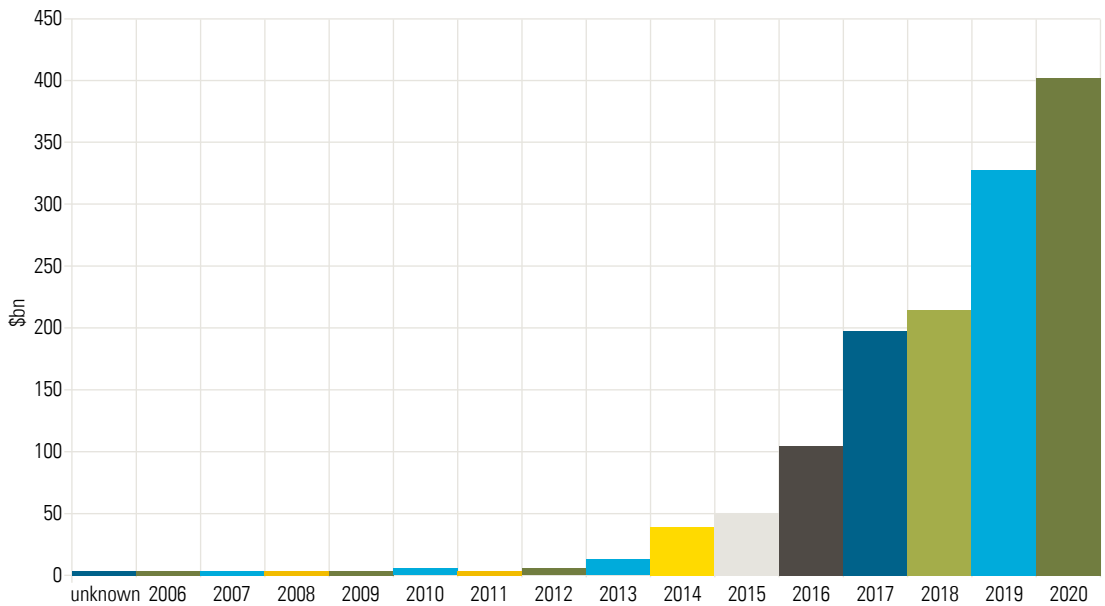


About Julia Kapraun

Julia Kapraun, 37, studied mathematics in Berlin and earned her doctoral degree at the Chair of Finance, WHU – Otto Beisheim School of Management. In 2017, she joined the Department of Finance at the Faculty of Economics and Business Administration of Goethe University as a postdoctoral researcher. Her main research interests are sustainable finance, behavioural finance and portfolio management. Her current research projects are concerned with sustainable investment products, their evaluation as well as the perception and acceptance of sustainability labels by investors on various markets and investment platforms.

Market volume of green bonds per year

The range of environmentally friendly investment opportunities on offer in the global financial market has rocketed since the early days back in 2006. The chart shows the volume of green bonds in billions of dollars for the respective calendar year.



Source: bonddata.org, retrieved on 20.10.2020.



The author

Pia Barth works as a public relations editor at Goethe University. Influenced by her studies of philosophy and literature, her interest in economics has only gradually awakened – above all since she became aware that nothing will change in the way humans treat their planet without impetus from the financial sector. However, without a new financial economy, nothing will change either.

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green exchanges convert recommendations into liabilities.

Financial expert Kapraun has discovered that the currency in which the green bond is issued also creates trust. The US dollar and the euro are more or less on a par in investors' affections, whereby twice as much is invested in EU bonds than in those issued in US dollars, with this figure set to increase in future. In third place, however, is the Chinese yen, which is also muscling in as a key player in the green bond market, although the requirements placed on Chinese bonds are far lower than the recommended standards for European bonds: Recommended standards in China stipulate that only half the volume of the green bond must be invested in sustainable projects, compared with 95 per cent in the case of European bonds. In China, however, explains Julia Kapraun, the recommended 50 per cent really is invested in green projects. By contrast, she adds, how many of the more demanding recommendations for European bonds are actually transformed into climate-friendly reality remains open.

Rethinking is rewarded

If an investor's experience with a first bond has been positive, this does not, however, have any influence on their acceptance of subsequent products: Investors particularly reward the first green bond issued by a company, even if it has not previously made a name for itself on the

basis of its environmental awareness. They are even prepared to accept up to 0.18 per cent less return on investment. Trusting in a company's change of heart, it would seem that investors want to make a statement.

Surprisingly, however, the primary and the secondary market differ: Investors who engage in the stock market as private individuals tend more to opt for green bonds if these can be bought at a lower or the same price as conventional bonds. Return on investment evidently takes priority, followed by the environment. Economists can only speculate about the reasons: Is the environmental awareness of smaller investors really less pronounced? Or do they find conflicting recommendations, standards and ratings bewildering?

In a study with the University of Zurich still underway, Julia Kapraun has endeavoured to gain an initial insight into the investment behaviour of private individuals. Even after they had been informed in detail about the sustainability ratings of companies and had even been given »guidelines«, their decisions for or against a company hardly changed. »The result was pretty unreliable. There is still a huge gap between thinking and doing.« says Kapraun. A lot suggests that investors do not sufficiently understand sustainable investment products, their labels and ratings. Why this is the case and what could help to change it – this is what Julia Kapraun wants to explore in future.

Experts estimate that currently only about 2 per cent of all global securities fill ecological and social purposes. Their total volume amounts to \$1,137.35 billion.

The European Union is currently working on a binding label for »green« investment products.

In 2020 too, investment opportunities that offer a safe return on investment and make the world greener and more equitable remain rare. The more money to be pumped into a »green project,« the more difficult it becomes: Still too few companies are questioning the »nature, extent and quality« of their consumption to date and seeking new, environmentally friendly ways.

The main topic of Science Year 2020 launched by Germany's Federal Ministry of Education and Research is the bioeconomy – that is, the transformation of an economy based on fossil resources into sustainable, biobased business practices. The theme was recently prolonged for a further year. So maybe responsibility for green bonds will soon shift from a company's marketing department to its management after all. ●

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