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Sustainable finance

The search for 'greenium'

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Being Green - it's not all about the money

Engaging in green finance requires extra effort, in particular for issuers; far more hoops to jump through relative to vanilla issuance. But there are clear benefits, and it's not just about lower funding costs. It's more about the messaging. Extra hours go in, but what comes out leaves a lasting impression, mostly a good one. We have some survey evidence

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Source: Shutterstock. The Manhattan skyline from Central Park

Issuing green bonds requires considerable effort. Does that cost really matter?

Going down the Green route requires considerable effort. A long logistical exercise is required all the way from identification of use of proceeds, to project evaluation, to the management of proceeds; all of which require efforts over and above what would be typical for issuance of a vanilla bond.

And even then the job is not done, as a reporting exercise is required in order to ensure compliance with prior project selection, and often external assurance firms are needed to confirm sustainability quality. Having the people and capability on board is clearly a requirement and a cost.

> *"All types of large operations are knee-deep in miscellaneous logistical stuff; sustainable financing is just an add on"*

The counterargument to the implied cost of engaging in green finance is that corporates are knee-deep with this kind of stuff to begin with. Every corporate will have accounting, legal, logistical, development and finance functions that together are in a constant state of reacting to regulatory requirements and changing circumstances.

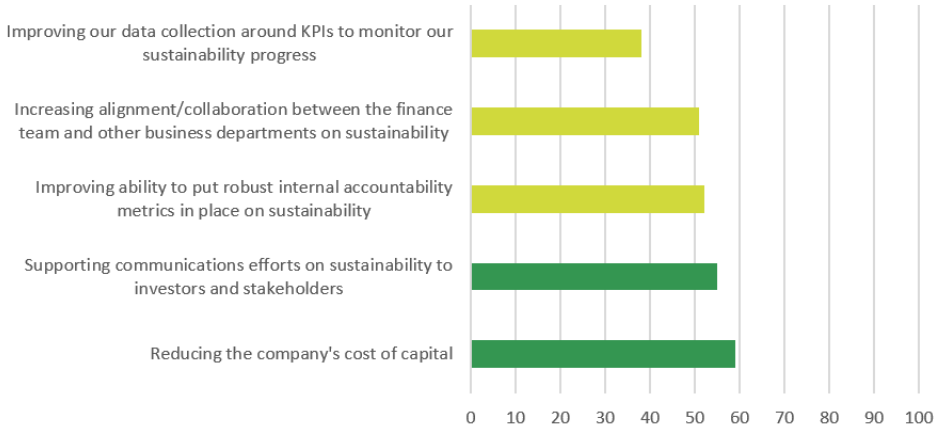
Our survey of corporates suggests that green issuance is a bigger ask of the Treasury team in terms of time and effort, but the implied benefits that come back dominate. Here, we're going to explore the actual costs and benefits through both quantitative and qualitative factors, with a particular focus on the financing aspect of sustainability.

Corporates have quite a holistic view on the benefits of sustainable financing. And the survey says ...

In the recent Longtitude/ING study, 'Now or never, a new bar for sustainability', some key questions were posed to corporates on funding through sustainable finance.

When asked about motivations for engaging in sustainable finance, the reduction in the cost of capital was a factor, but far from the only one.

To what extent did the use of sustainable finance deliver benefits?
(out of 100%)



Source: Longitude/ING survey of corporates

Lower costs and positive benefits

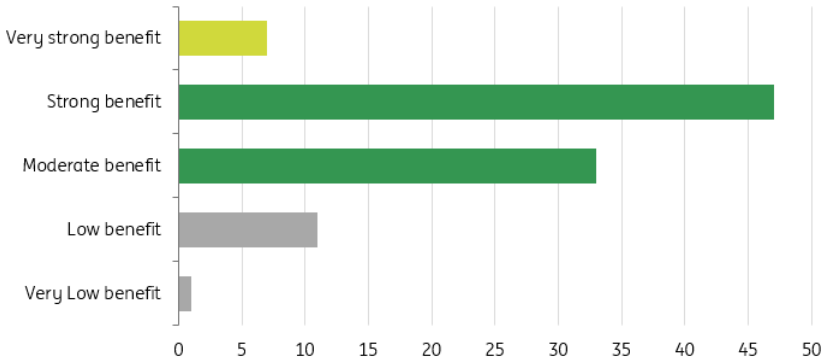
Other factors such as sending a positive message to employees, support for sustainability communications to investors and stakeholders and help to improve Environment and Socal Governance (ESG) ratings were equally high on the list of desirable outcomes.

59% of corporate respondents see a lower cost of capital from sustainable financing
When it comes to the actual effects of sustainable issuance, some 59% of respondents did see a reduction in the company's cost of capital, and some 55% viewed the exercise as supporting communications on sustainability to investors and other stakeholders.

55% of corporate respondents viewed sustainable financing as a positive tilt for both investors and stakeholders.
Benefits were also gleaned from the collaboration between the finance team and other business departments on sustainability issues.

There were also corporates that did not see these as material benefits, but the lesson here is that green financing has ancillary benefits. Lower funding costs are on that list, but even if the funding costs were not lower, there were still other more qualitative benefits to be had.

To what extent did sustainable finance support communications on sustainability to stakeholders?
(Sums to 100%)



Source: Longitude/ING survey of corporates

Growing awareness across the board

One of the underlying circumstances at play here is the growth of awareness of ESG issues generally, from the stakeholder of all guises, whether that be shareholders, business partners or employees. In terms of the pure financing decision, there is no coercion coming from the official sector. Rather it is a bottom-up choice that has evolved as the right choice under the totality of circumstances.

The fact that there is a cost of funding improvement to boot is an added benefit; but more of a welcome outcome than a driver. The real test would be where the funding advantage disappeared completely or is even inverted. There would likely be a point where issuance plans would revert towards vanilla if the price point were severe enough. But that would likely require near-ubiquity in ESG bonds, and we are quite some way away from that.

The corporate premium in green finance

There is a cost saving to issuing Green. It varies according to circumstances, but the baseline assumption now is for green yields to be below vanilla ones; not by much, but it's persistent enough. It's between 1 basis point to 10bp, with EURs drifting lower while the USD version is a tad more elevated. It reflects ESG scarcity, but also longevity

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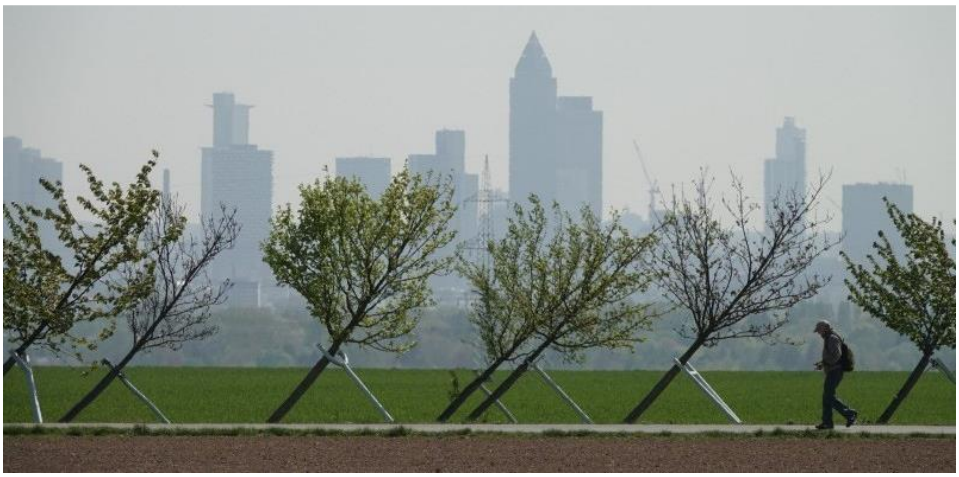


Frankfurt's skyline behind a field housing an art installation

The market for sustainable financing features a premium on ESG bonds; a reflection of long term aspirational change

Environment, Social & Governance (ESG) as a concept has been elevated in importance on both sides of the financing fence – the issuer and the investor. It's reflected in the deployment of product by issuers that prefer to pursue an ESG objective, alongside investors that want to be seen embracing the same. Green issuance trades at a premium; that's a clear measure of tilt towards greenness.

As a consequence of an excess of demand over supply of ESG bonds, a so-called "greenium" is in play, where ESG bonds trade at a higher price than vanilla ones (thus commanding a lower yield). In consequence, issuance in ESG bonds is cheaper for the issuer, and the buyer accepts a lower running yield.

> *"Sustainability reduces existential risk, the ultimate default"*

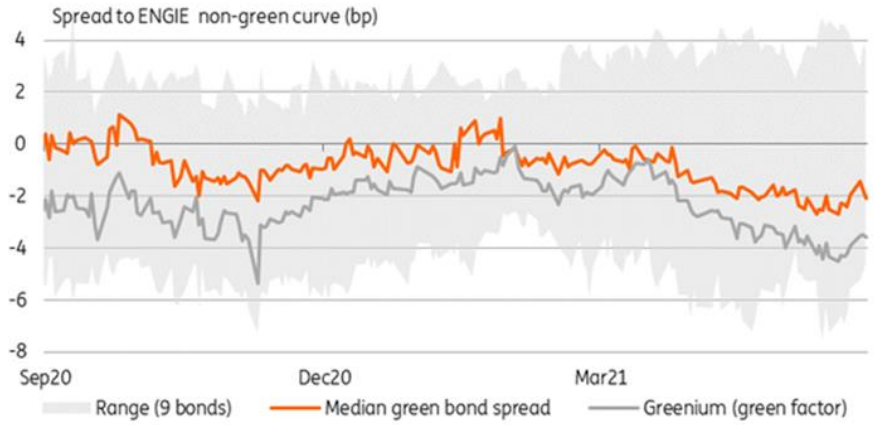
Why? It's not just because embracing ESG is seen to be the right thing to do, it is also seen as a sensible long-term investment practice; to be in things that are seen to be sustainable. The ultra buy-and-hold strategy must embrace this, as holding on for the long term requires sustainability, by definition. At the extreme, sustainability reduces existential risk (the ultimate default).

Changing times

The lower yield on Green issuance has not always been the norm. A number of years back it was the reverse, where Green issuance meant higher funding costs for issuers. Back then, issuing in the Green space meant making a statement that issuers were willing to pay a bit more to be more Green. Now it's investors making the statement that they are willing to sacrifice (a bit of) yield to help build their Green credentials (both for the investor, and the intermediary).

And this has occurred alongside a dramatic build in ESG issuance. It is clear though that there is demand for more.

Example of recent evolution of the greenium and its deviations for different bonds from the same issuer
(EUR Enegie, bp)



Source: Refinitiv, ING estimates

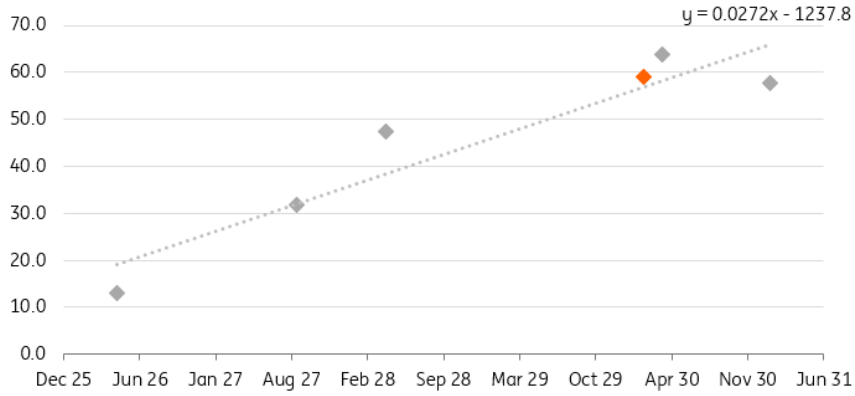
Our calculations show a Greenium of some 1bp to 3bp in EUR versus a higher greenium of 5bp to 8bp in USD

We've done an updated holistic analysis of where the greenium is. We base it off EUR and USD issuance completed in 2020 and 2021 to date, from mostly European - and US-based corporates. For EUR issues we find a median greenium of 2bp, but can be much higher depending on circumstances. Our credit strategy team has looked at the greenium specifically in EUR investment-grade corporates and has concluded that it is now in the 1bp area, and has fallen in the past number of quarters, mostly on account of more Green issuance. This illustrates considerable variability in the size of the greenium, but also some evidence that is not as large as it was (some 6bp a year ago).

> *"Our calculations confirm a definite greenium, and currently larger in USD vs EUR"*

When we look at the USD numbers we find evidence that the greenium is currently larger (versus EUR). Our USD debt capital markets team spends its days looking at new issues and identifies a spread of anywhere between 1bp to 10bp as the greenium currently for the bulk of bonds that have been issued so far in 2021. We've done a separate exercise looking at secondary market levels and have found that the average greenium is in the area of 5bp to 8bp, and in some extreme cases, the greenium can be in excess of 20bp (albeit callable/coupon size impacted). There has been a clear build in issuance from US corporates, and the greenium on USD issuance commands a demand for more.

Example where vanilla bonds sit alongside a relatively new green bond
(USD, Toyota, bp)



Source: Refinitiv, ING estimates

There are various ways to do this exercise, depending on whether we fit a curve or simply look at comparison versus immediate adjacents, and we provide a summary of the detailed outcomes in the illustrations below.

Table of greenium calculations for EUR and USD

	USD Greenium	EUR Greenium
Mean	-8	-3
Median	-6	-1
High	-33	-18
Low	11	6

Negative means green yield below vanilla equivalent
Source: Refinitiv, ING estimates

Lets take a middle ground, say a 5bp greenium. For a $1bn bond, that comes to a cost saving of $500,000. Or for a $10bn bond portfolio that is then a $5m cost saving. Maybe not determinative, but also not nothing.

Driving towards a sustainable future

Does this make a difference to the overall drive for a more sustainable future? As a stand-alone, probably not. Even the brownest of operators can identify green aspects to what they do and look then to embrace them by highlighting and ring-fencing them from a financing perspective. The financing decision is part of a bespoke set of processes that as a collective characterises where any corporate is on the spectrum of greenness.

The bigger lifting in terms of making a real difference comes from how businesses are run, what they produce, how they produce, where it's done and what efforts are made to actually make a difference. That still likely requires some carrot and stick. But the pleasing aspect is that Green finance is increasingly positioned to partake in this, and indeed as an aid to lubricating the bigger effort, and that's important in itself.

The greenery in sovereign and SSA space

The funding advantage of green bonds is also a reality in the official sector, although discrepancies among issuers do exist. Due to their more prolific borrowing and abundance of green bonds, sovereign and SSAs offer our best opportunity to accurately measure this greenium. They also have a responsibility in 'leading the way' for private borrowers

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The President of the European Investment Bank, Werner Hoyer

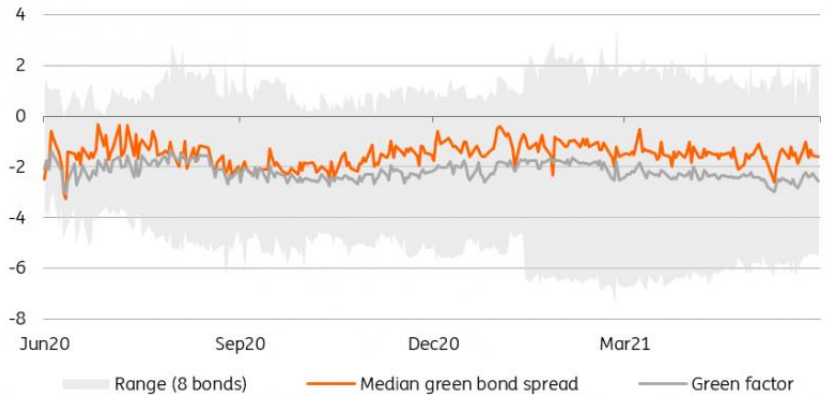
Sovereign and SSAs: a small but clear funding advantage (at least in EUR)

Sovereigns and SSAs (sub-sovereign, supranational and agencies) have been one of the most prolific green bond issuers for years, and they typically have liquid non-green curves to compare them to. Here we find a relatively well-defined tendency for green bonds to carry lower interest than their peer, ie, a positive greenium. But even there, it is hard to make broad-brush statements.

SSAs present our best chance to accurately measure the greenium as they tend to issue a greater number of green bonds than other types of borrowers. We find that among these issuers, the greenium on EUR curves is more clearly defined than in other currencies, although in most cases it oscillates between 0bp and 5bp. Take for example the European Investment Bank (EIB), an early and enthusiastic issuer of green bonds. Its EUR curve displays a clear and well defined greenium worth around 2bp, while its USD curve suggests no clear funding cost advantage in issuing green bonds.

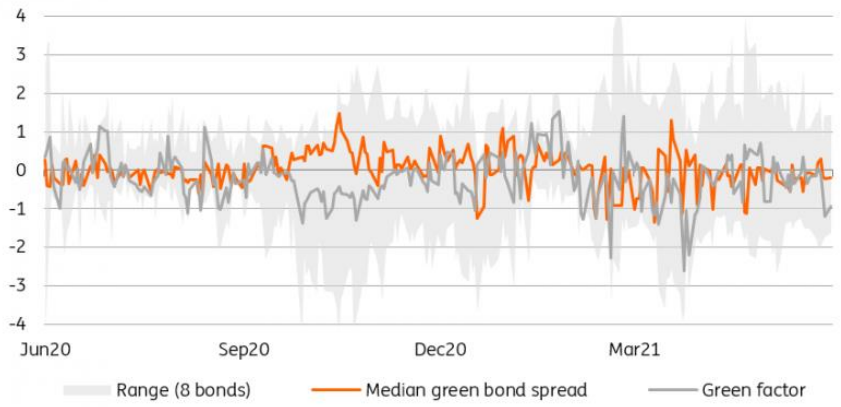
EIB greenium in EUR is stable and clearly defined

Spread to EIB non-green curve (bp)



Source: Refinitiv, ING estimates

The same cannot be said of its USD greenium
Spread to EIB non-green curve (bp)



Source: Refinitiv, ING estimates

The 'sovereign' approach

In contrast, the approach retained by most sovereigns is to issue a small number of large green bonds. This means that for each one of the - mostly European - countries, our greenium estimate is a one or two bonds estimate. The result is not statistically significant for each issuer but we do observe greeniums in the range of 0.3bp (Ireland) to 5.0bp (Italy) across the six eurozone sovereigns that have issued green bonds, the median being 2.4bp.

So we feel more confident in talking about the existence of a greenium in the official sector for EUR-denominated debt. This is a slightly different conclusion than for corporate issuers above but it should be said that discrepancies from one borrower to the other are significant. It may be also that as USD green bonds from sovereigns and SSAs gain in popularity, so will their greenium.

"As USD green bonds from sovereigns and SSAs gain in popularity, so will their greenium"

As with corporates, there are indeed other benefits for the official sector to issuing green securities. For one thing, we believe the initiative taken by SSA borrowers in launching the first green bonds should at least share some of the credit for their popularity. By the same token, the UK Debt Management Office's recent decision to issue green gilts should turbocharge the growth of the sterling green bond market.

Secondly, a more observable 'greenium' on the more liquid sovereign and SSA curve, albeit modest, adds to the case for green issuance for other borrowers where the funding benefit should be larger.

Finally, the practice of regularly issuing green bonds acts as a form of political commitment to green projects even through electoral cycles.

So what is a greenium and how do we get to it?

The existence of a greenium is mostly justified by higher demand for green bonds. We estimate the greenium for each curve separately, ensuring it is not polluted by other factors such as sector or maturity

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The theory behind the greenium

One of the peculiarities of ESG (aka "Green") issuance is the capability to trade at a premium versus regular (aka "Vanilla") bonds. There is no theoretical reason that this should be the case. Green bonds are just as likely to be repaid as Vanilla bonds, or in other words there is no greater or lesser default risk attached to them (from the same issuer, and without subordination).

> *"Green bonds are just as likely to default as Vanilla bonds are, so why the premium in green?"*

So if Green bonds command a premium, it must reflect a prevalence of demand over supply. The issuance of Green bonds has soared in recent years, but demand has outstripped it. The so-called "greenium" reflects this through a lower yield being attached to Green relative to Vanilla bond issuance.

But also there is a longevity rationale. Sustainability should mean avoidance of existential risk, and to that extent we could or should expect to see a premium being attached to such product.

What is a Greenium, our methodology in a nutshell

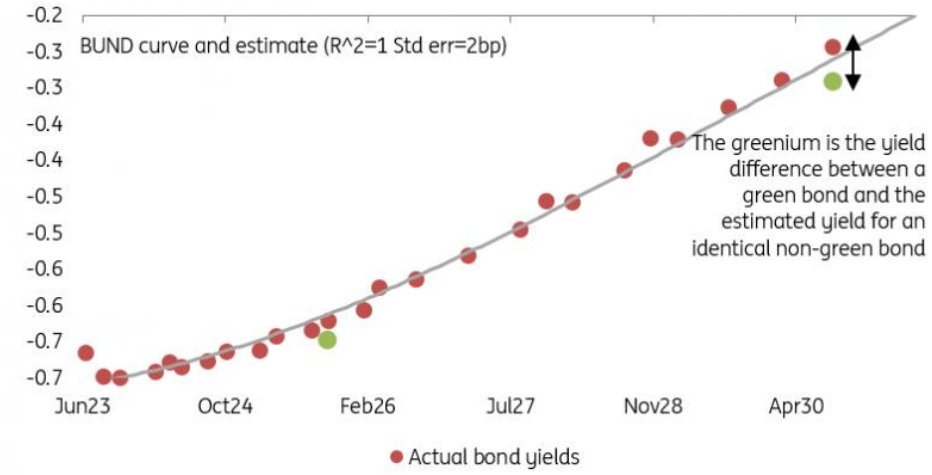
We have quantified the pricing difference between green and non-green bonds (the greenium in its purest sense, as a price differential). There is more than one way to approach this issue. There is rarely a green and non-green bond sharing exactly the same characteristics (coupon, maturity, size, issue date, currency, sector, etc.) so direct comparison is almost never an option.

> *"We calculate the greenium using a curve model. Its agnostic to circumstances and fair."*

One approach is not to try to correct for these factors at all and just compare the average yield between green and non-green bonds. The advantage of this method is that it doesn't rely on any model, but the greenium estimate is

liable to be drowned out by other factors (eg, maturity). At the other end of the spectrum, one can resort to a curve model and estimate the greenium for each issuer in order to avoid the measure being 'polluted' by other factors. This is our approach.

The greenium is the spread of a green bonds to the issuer's non-green curve



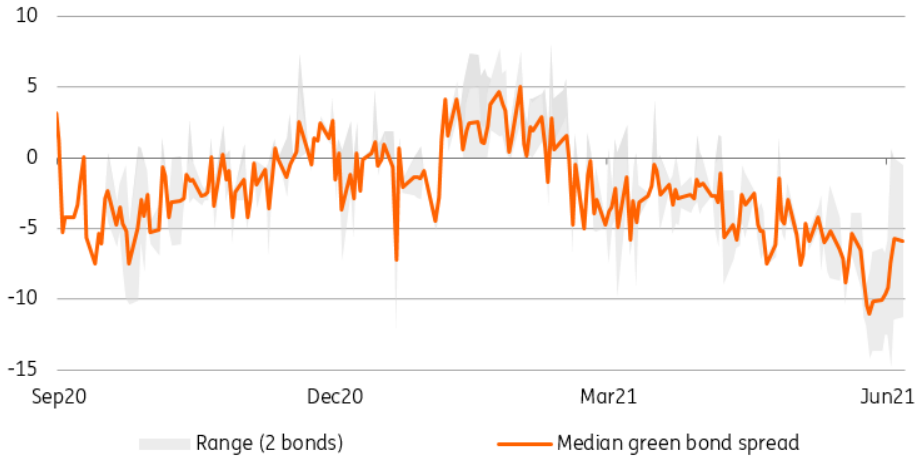
Source: Refinitiv, ING estimates

To achieve this, we build two curve models for each issuer with a sufficient number of green and non-green bonds (3 and 10 respectively): one with a green factor, and one without. In the first case, the value of this green factor is simply our greenium estimate. In the second, the median model residual of all existing green bonds is our estimate. The two approaches are very similar but the second tends to be more robust for curves with only a small number of bonds, so we use both.

Below are some examples of greenium calculations.

Example of generic greenium in Verizon USD

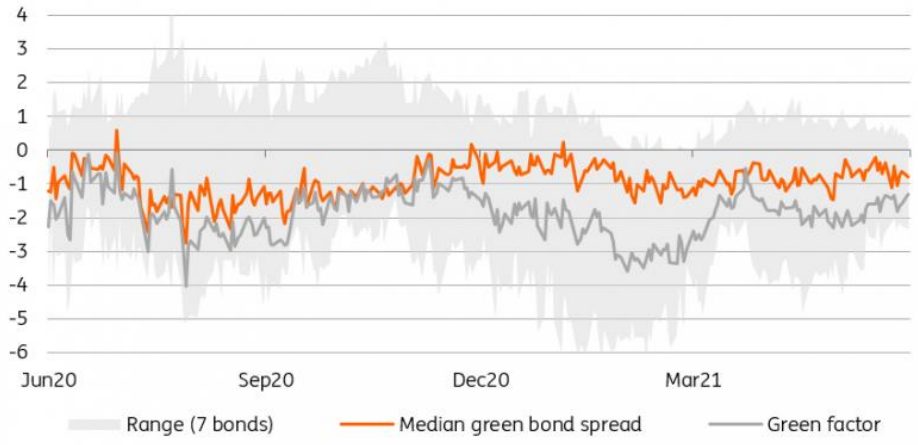
Spread to VZ non-green curve (bp)



Source: Refinitiv, ING estimates

Example of generic greenium in e.on

Spread to EONGI non-green curve (bp)



Source: Refinitiv, ING estimates

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