

## Sovereign and SSA: the vain search for a greenium benchmark

Sovereign and SSA paved the way for other green bond issuers. Even in these mature markets, we find wide discrepancies in how greenium is priced. Data does support the claim that a greenium exists on average, but not that green bonds are a substitute for one another. In other words, greeniums aren't correlated



Periods of illiquid market conditions may favour green bonds

Given their benchmark role, we examine how the premium associated with sovereign and SSA ESG bonds – and green bonds in particular – has evolved. Not only as the market has matured, but also as the overall market environment has turned more volatile as central banks fight inflation and geopolitical factors shake risk sentiment. What adds to the challenge of analysing the “greenium” in the sovereign and SSA space, in particular, is that often the mission of the issuer itself is already to a degree in alignment with sustainability principles – blurring the lines between the conventional “grey” and ESG bonds of an issuer. Think of the World Bank or even the European Investment Bank (EIB). And in some cases, it goes as far as an issuer only being active in ESG bonds such as the French agency CADES which only issues social bonds.

The sovereign bonds space has seen more governments enter the €-green bond market over the

past few years. However, this often means one or two larger green bonds from an individual issuer rather than an entire complementing green curve to the existing bond curve. Theoretically, the “greenium” should be easier to measure, but at the same time having only a few bonds to analyse makes it more difficult to distinguish the green factor from other idiosyncratic bond stories. One simple example is supply activities, as sovereign issuers reopen the green bonds themselves or just surrounding grey bonds. But It may also just be that the one green bond under scrutiny happens to be in a maturity bucket being sought after more generally.

## The main EUR sovereign entrants to the green bond market

Issuer	Entry	Nr Bonds	Avg greenium (bp)	Range (bp)
France	Jan 2017	2	3	0.7-6.6
Belgium	Mar 2018	1	10	
Ireland	Oct 2018	1	10.2	
Netherlands	May 2019	1	5.6	2.1-4.9
Germany	Sep 2020	4	3.2	
Italy	Mar 2021	1	2.6	
Spain	Sep 2021	1	1	

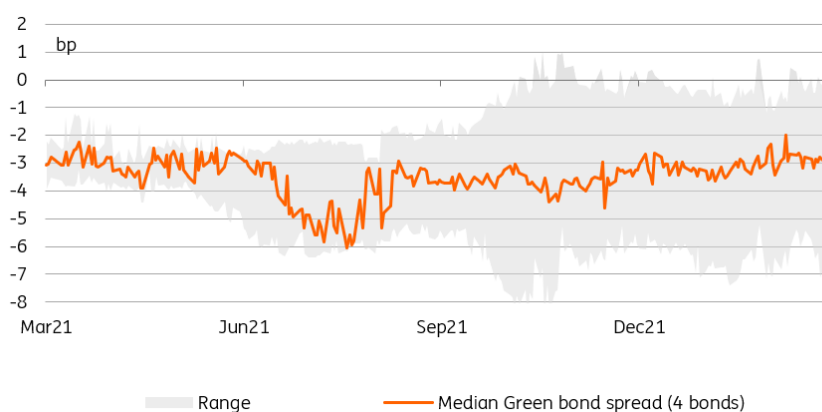
Source: Debt agencies, ING estimates  
ING estimates (end March)

## Green Bunds – the challenges of building a green benchmark

Germany is an exception in that it planned to build a benchmark green curve from the onset. In fact, each green bond has a grey twin bond with otherwise identical features that is increased in size alongside every issuance in the green bond.

In theory that should make for easy reading of the greenium. But then it is also managed greenium. The German finance agency uses retained amounts with the explicit purpose of “ensuring secondary market tradability comparable to conventional German Federal securities”. Even so, a look at the evolution of the Bund greenium shows a wide variation – over time and across bonds. Since early 2021 the 5Y German green bond has seen its premium rise from a relatively stable 2bp to over 8bp before falling back to 5bp. Currently, the four German green bonds command premiums between 2bp and 5bp.

## Virtual reality: German 'managed' greenium

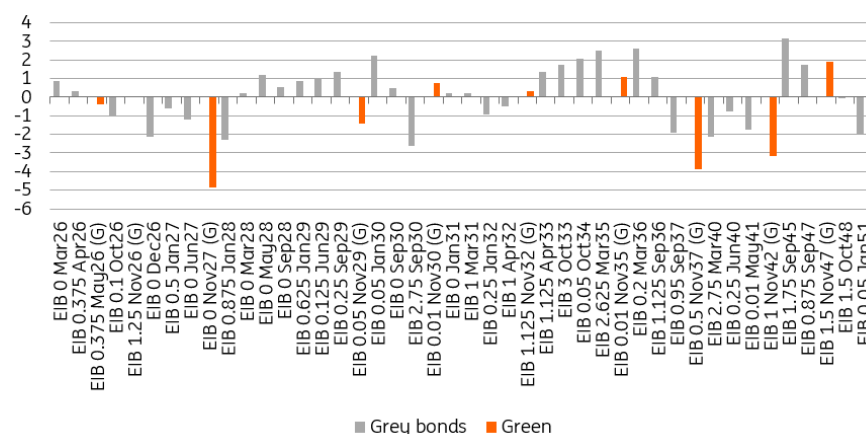


Source: Refinitiv, ING

## Green SSA bonds, in a perfect world...

The SSA bond market is a more fertile ground for a comprehensive analysis of the greenium, its characteristics, and its drivers. SSAs have been early adopters of green bonds, and prolific issuers. This means enough bonds and enough history to avoid the usual biases likely to cloud any green bond calculation (among them country, sector, and maturity skew).

## Not all EIB green bonds have a lower yield than the grey curve implies



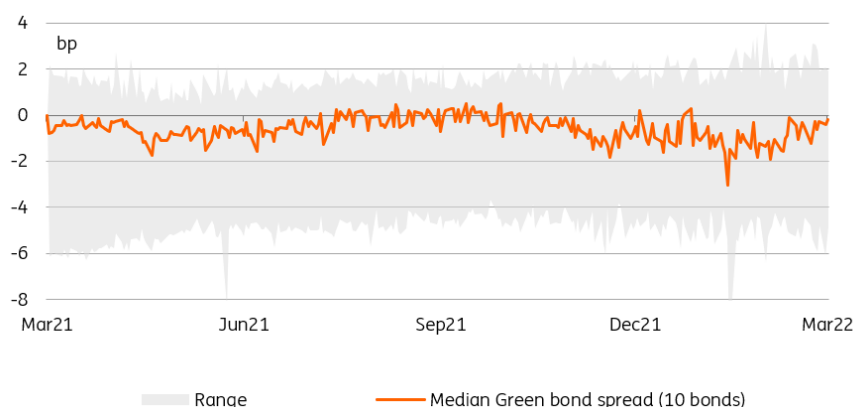
Source: Refinitiv, ING

Our conclusion is that despite more often than not displaying a positive greenium (ie green bonds trading with lower yields than grey equivalents, and thus shown as a negative number in our charts) other important pieces of the green bond jigsaw are missing.

### *Important pieces of the green bond jigsaw are missing*

To conclude that 'greenness' is a factor that affects the pricing of all green bonds, we would ideally want to see a degree of correlation between the greenium of green bonds within the same curve, indicating that they are a substitute for each other in investors' mind, and across issuers, suggesting that investors are at least as much interested in the bonds' 'greenness' as in its issuer.

## The range of EIB greeniums is wide

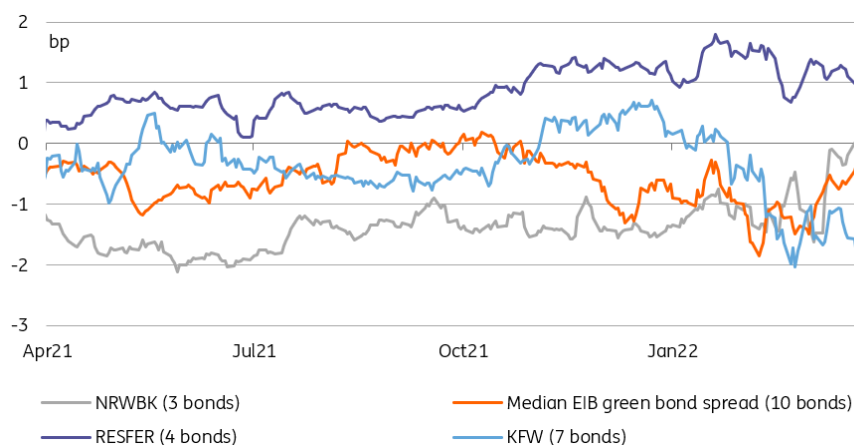


Source: Refinitiv, ING

## ...even SSA greeniums aren't correlated

Starting at the individual issuer level, and taking the EIB as an example, far from all green bonds trade with a positive greenium even if average and median greenium suggest lower yields for EIB green bonds. In addition to a relatively wide range of greeniums within the same curve, we find little to no correlation between them. Taking a sample of four large issuers from across the eurozone, the EIB, German bank KfW, Réseau ferré de France (RESFER), and Dutch financial institution Ned WaterschapsBank, we also find a tendency of green bonds to trade with lower yields than their theoretical 'grey' yield, but no cross-issuer correlation.

## The greenium of SSA issuers doesn't look very correlated



Source: Refinitiv, ING

Periods of heightened volatility and lower market liquidity can be revealing of an asset's trading behaviour. As we pointed out above, it is hard to generalise but, at the onset of the Ukraine invasion, we observed a tendency of the SSA greenium to grow, at least temporarily.

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*Periods of illiquid market conditions may favour green bonds*

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For some issuers that move has already been reversed but it suggests that periods of illiquid market conditions favour green bonds.

This is a more controversial claim than it seems. A positive greenium is justified in part by a supply and demand imbalance, something that rarely goes hand-in-hand with better liquidity. We would also expect that green bond investors have a longer typical holding period, making the effective free float of green bonds smaller than their grey peers.

## Author

**Benjamin Schroeder**

Senior Rates Strategist

[benjamin.schroeder@ing.com](mailto:benjamin.schroeder@ing.com)

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