

The Greenium and Verified Impact

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Greenium: The yield differential between a green bond and an equivalent conventional bond — the price premium that investors are willing to pay for verified environmental credentials, expressed as a lower yield (and therefore lower borrowing cost) for the green issuer.

The Evidence Base

The existence and magnitude of the greenium has been studied extensively since the first labelled green bonds appeared in 2007. The evidence is now robust across markets and geographies:

Corporate Green Bonds

- **Zerbib (2019) — Journal of Financial Economics:** Analysis of 135 matched green/conventional bond pairs. Average greenium: 22 bps (green bonds yielded 22 bps less than conventional equivalents). Small but statistically significant.
- **Kapraun et al. (2021):** Expanded to 640 bonds. Finding: the greenium is concentrated in bonds with third-party verification and aligned to climate standards. Verified bonds: 27.5 bps. Unverified bonds: effectively 0 bps. **This is the critical finding for SUI.**
- **EU Green Bond Standards analysis (2023):** Bonds aligned to EU GBS show greenium of 12 to 18 bps, compared to 2 to 25 bps for self-labelled green bonds without EU GBS alignment.

Sovereign Green Bonds

- **IFC/World Bank (2022):** Sovereign green bonds with strong disclosure and third-party verification show greenium up to 40 bps in some markets. Emerging market sovereign green bonds: 10 to 20 bps average.
- **Bloomberg data (2024):** The green bond market reached \$4.2 trillion in outstanding issuance. The average greenium across the entire market is approximately 5 bps — a small number that represents enormous cost savings at scale.

Implications for Climate Startups

Climate startups rarely issue public bonds directly — they are too small. But the greenium evidence matters for two indirect reasons:

1. **VC fund greenium:** Impact venture funds that hold verifiably impactful portfolio companies can raise their own green bonds or sustainability-linked bonds at greenium rates, and pass part of the funding cost advantage to portfolio companies through lower-cost venture debt.
2. **Green bond readiness as signalling:** A startup whose SUI meets green bond verification standards is demonstrably investment-ready for institutional capital — the verification standard serves as a quality signal even when the startup is not yet issuing bonds itself.

What Creates the Greenium

The greenium is not simply investor altruism. Three mechanisms drive it:

Mechanism A: Investor Mandate Compliance

Institutional investors with ESG mandates (pension funds, insurance companies, sovereign wealth funds) must demonstrate that a certain percentage of their portfolio meets green criteria. For these investors, verified green assets are scarce — demand exceeds supply. Scarcity premium = greenium.

Mechanism B: Regulatory Risk Reduction

EU SFDR, UK Sustainability Disclosure Requirements, and SEC climate disclosure rules create regulatory exposure for investments without documented green credentials. Green bond investors reduce their regulatory risk by holding verified assets. Risk reduction = willingness to accept lower yield.

Mechanism C: Liquidity Premium from Green Index Inclusion

Green bonds included in major ESG indices (Bloomberg MSCI Green Bond Index, S&P Green Bond Index) trade at higher liquidity than non-index bonds. Higher liquidity means lower yield. Index inclusion requires meeting minimum verification standards — creating a sharp incentive for issuers to verify.

The Verification Threshold Effect

The most important finding from Kapraun et al. (2021) is the non-linearity of the greenium with verification quality. The greenium does not increase gradually as verification quality improves — it jumps sharply at the threshold of independent third-party verification. Below the threshold, greenium is effectively zero. Above the threshold, greenium appears.

This is exactly the binary logic of the SUI framework: a SUI is either independently verified against an SSOT or it is not. There is no partial credit. And the financial benefit (access to the greenium) appears at the point of verification, not incrementally before it.

Accessing the Greenium as a Startup

A climate startup cannot directly access the greenium as a bond issuer — minimum bond sizes are typically \$50M+. But several pathways exist:

Pathway	Mechanism	Startup Requirement
Green Revenue Note	Private debt instrument linked to green-certified revenue	Verified SUI, SSOT, 12+ months revenue history
DFI Concessional Loan	Below-market rate loan from IFC, IDB, or regional DFI	MDB taxonomy alignment, AIMM scoring, verified SUI
Sustainability-Linked Loan (SLL)	Interest rate tied to hitting verified impact milestones	Verified SUI as trigger metric, SSOT for monitoring
Impact VC Fund Allocation	VC fund lowers hurdle rate for verified impact portfolio companies	Third-party SUI verification, IRIS+ reporting
Corporate Green Bond (via offtaker)	Large corporate partner issues green bond backed partly by startup's impact	Verified SUI that meets corporate partner's GBS alignment

Next: [Blended Finance and First-Loss Guarantees](#) — structuring concessional capital around verified SUI milestones.