Do the Shades of Green Matter? The Pricing and Ownership of “Dark- green” Bonds

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Summary

Green bonds are a relatively new type of bond defined by the International Capital Markets Association (ICMA) as “any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new or/and existing eligible green projects”. The “greenness” of bonds usually is certified by an external review. According to the ICMA’s Green Bond Principles, there are four main types of green external reviews: second-party opinion, verification, certification, and green rating. External reviewers are typically independent research institutions dedicated to environmental research such as the Center for International Climate Research (CICERO). The objective of an external reviewer is to determine whether a given activity or technology supports a low-carbon and climate resilient society in the long-term.

The second opinions are typically graded Light Green, Medium Green or Dark Green. Light Green is allocated to projects that are climate-friendly but lack a long-term horizon; while the bond proceeds can deliver short-term GHG emission reductions, the project will still extensively rely mostly on fossil fuels. Medium Green is allocated to projects that incorporate a long-term vision to reduce emissions, but they are not ambitious in the scope of carbon footprint reduction.

Dark Green is allocated to projects which show ambitious but realistic carbon footprint reduction targets. Additionally, the issuers have a robust strategy to reduce or mitigate the exposure to other transitional and physical climate risks. Therefore, the Dark Green bonds are considered the best green assets available in the fixed income realm.

This study explores whether the green bonds rated “dark green” by CICERO are priced differently in the market from the light/medium-green ones as well as from the conventional bonds. To measure whether dark-green bonds are priced differently, we match our bonds, rated by CICERO, with comparable bonds that differ as little as possible apart from the green feature. The analysis identified bonds from the same issuer, with the same currency, rating, maturity type, payment rank and coupon type. We find that on average dark-green bonds are not priced differently from otherwise similar non-green bonds. However, we find that the premium for dark-green bonds increases over time and has been particularly penalised in 2020, possibly because of less investor focus on assets’ environmental footprint during the COVID-19 crisis.

Importantly, we show that the shades of green do matter for responsible investors. Institutional investors who have signed the United Nations Principles for Responsible Investment (UNPRI) have a significantly higher ownership of dark-green bonds than of similar conventional bonds (about 16% more), while the light/medium green bonds do not feature significantly higher in the holdings of UNPRI investors (see the Table below).

Bond Ownership by UNPRI Investors			
	Dark green vs. Conventional	Light green vs. Conventional	Dark green vs. Light green
Mean Difference	16.24%	1.37%	14.87%
Statistical significance	High	None	Moderate

This result implies that UNPRI investors prefer to hold green bonds but also perform thorough due diligence and end up holding a significantly higher percentage specifically of dark-green bonds. On the other hand, UNPRI investors seem to treat Light and Medium green bonds as equal to the conventional bonds. This finding supports the view that the shades of green do matter for climate-aware institutional investors even if the demand for dark-green assets does not translate into a tangible premium as far as the bond pricing is concerned.

Our results have policy implications as the shades of green do matter for investment decisions. Independent external reviews can help in reducing information asymmetry between green bond issuers and investors. Thus, regulatory standard and frameworks for the shades of green should be encouraged and offer more granular assessment of the environmental quality of the projects financed via green bonds. An important step would be the homogenisation, disclosure and enhanced comparability of the assessment criteria and metrics adopted by independent green bond reviewers.

Our findings have three main implications for Hong Kong as an international financial centre for responsible investments. First, our study finds that institutional investors have significantly higher stakes in dark-green bonds than in light/ medium green and in non-green bonds. In order to stay attractive for green bonds investors, Hong Kong should promote new standards to reliably define and measure the shades of green of fixed income securities and encourage the development in the region of independent organisations who can provide credible second-opinions and certifications for green bonds.

Second, climate-aware institutional investors are global by scope and willing to enhance the sustainability footprint of the entire financial industry. Hong Kong should explore forms of collaboration with investors outside the region (especially from Europe) who are committed to responsible investments and have developed specific expertise in assessing the environmental footprint of financial assets. This could be achieved by creating ad hoc advisory committees or councils to attract the know-how and expertise of key climate-aware fixed-income investors.

Lastly, assessing the securities' shades of green requires technical expertise from the natural sciences and engineering realms. Hong Kong should nurture an ecosystem where issuers, investors, regulators, independent reviewers, and research institutions could share know-how of the scientific and engineering aspects of the low-carbon transition. In particular Hong Kong could create collaborative scientific platforms for academic institutions and research centres to foster the quality of climate footprint metrics that can be used by investors. Such research efforts should be applicative in nature and deliver actionable tools for investors.