Sustainability in the Financial Sector

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The minimum bar for the financial sector is going to constantly move upwards for the foreseeable future with regard to disclosure, regulation, reputation, loans and investments alignment. The bond market and sustainability-linked targets could help financial institutions integrate ESG at the core of their business and accelerate the reallocation of capital for the transition to a low-carbon economy.

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Overarching Framework

Governments, cities and companies are pledging to reach carbon neutrality by 2050.

One of the three long-term goals set by the 2015 Paris Agreement is making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

To achieve the Sustainable Development Goals (SDGs), the United Nations recognized the need for significant mobilization of resources and the effective use of financing.

Financial institutions play an important role to redirect capital to green solutions and technologies to accelerate the global transition towards a low-carbon economy.

Financial Regulation and Legislation

The Network for Greening the Financial System (NGFS), a group of central banks and supervisors, is integrating climate-related risks into prudential supervision. These mostly consist of transition risk and physical risk.

Transition risk is related to changes in policy, laws, technology, market and reputation. For example, the shift from fossil fuel to renewable energy or the electrification of transportation.

For example, drought forced Coca-Cola to shut its plants in India and the damages caused from the Californian wildfires forced Pacific Gas and Electric Company, a utility, into bankruptcy.

Regulators in Europe, Australia and Singapore will include these risks in their stress tests with forward-looking scenarios analysis on climate change.[1 2 3] Eventually, this may lead to a difference in banks' risk weights based on whether the assets are brown or green. Natixis, a French corporate and investment bank owned by Groupe BPCE, voluntarily applies a green weighting factor on its financing exposures.[4]

Additionally, the European Banking Authority (EBA) may include Environmental, Social and Governance (ESG) risks in its annual Supervisory Review and Evaluation Process (SREP). That means the minimum capital required by a financial institution will be impacted by its exposure to ESG factors and their incorporation into business strategies, governance and risk management.[6]

The regulators decisions are sometimes the largest driver of valuations. In 2020, the European Insurance and Occupational Pensions Authority (EIOPA) and the European Systemic Risk Board (ESRB) urged banks and insurers against the payment of dividends or other distributions to preserve capital. The Federal Reserve barred large banks buybacks and capped dividends. Both were due to the COVID-19 pandemic, a social event.

> " Climate finance and risk management is moving into the mainstream. There has been a transition in thinking. And this is now beginning to be translated into action".[5]
>
> *Mark Carney, Former Governor of the Bank of England*

1 Bank of England, Transition in thinking: The impact of climate change on the UK banking sector, 2018
2 European Central Bank, Financial Stability Review, May 2020
3 European Systemic Risk Board, Positively green: Measuring climate change risks to financial stability, 2020
4 Natixis, Green weighting factor
5 Bank of England, A Transition in Thinking and Action
6 European Banking Authority (EBA), EBA discussion paper

Reputation and Litigation

Transition risk is already materializing in reputation and litigation risks. In 2019, environmental lawyers won lawsuits against Enea, a Polish energy company, for its plan to build a coal-fired power plant. The court agreed that the investment posed major financial risks to the company and its shareholders.[7] Within the next 2 years, the majority of coal plants will be uncompetitive versus building new renewables. Though, they can remain insulated from competition by long-term contracts and noncompetitive tariffs.[8]

For the world to limit warming to 2°C, global coal use must decline by 80% by 2030. As retirements of plants accelerate, funding for new installations is drying up. New coal mines face restricted access to capital too. Lenders risk also divestment by shareholders and bond investors. NGOs, supported by institutional investors, are filing shareholder climate resolution votes at Annual General Meetings to hold management accountable to their pledges.

To reduce litigation risk and improve reputation, financial institutions are applying exclusion policies or capping exposures from financing or investment activities to some sectors of the economy. This includes lending, corporate banking advisory, bond issuance or even market making. Controversial weapons, thermal coal and tobacco are the most prominent examples.[9 10 11]

In 2020, for the first time, the UN Principles for Responsible Investment delisted some of its asset managers and owners for failure to incorporate ESG issues in their investment activity.

In the future, counterparty assessment will include ESG criteria. For example, an asset manager could stop a relationship with an investment bank because of its involvement in unwanted sectors.

Disclosure and Government Ppolicy

The Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD) published recommendations for voluntary, consistent, comparable, reliable and clear disclosures on climate-related financial risks for companies to provide information to lenders, insurers, investors and other stakeholders.[12] The UK and New Zealand have made it mandatory respectively from 2023 and from 2025[13 14], with other countries expected to follow. Over time, it will be assumed that companies that don't adopt them are not adequately managing risk.

From 2022, European investors and large companies will have to submit disclosures when applying for the EU Sustainable Finance Taxonomy, a classification system on what counts as green investment or green economic activity.

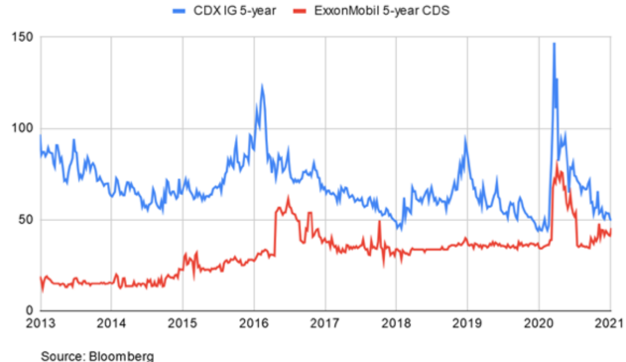
From March, the Sustainable Finance Disclosure Regulation (SFDR) requires mandatory ESG reporting for asset managers to force the integration of sustainability risks in the investment decision-making process. Some national regulators already started clamping down on misleading marketing.[15]

Asset owners and asset managers are also increasingly expected to adjust their strategies by sustainability-minded investors. The importance of ESG investing will accelerate as wealth is transferred from baby boomers to millennials.[16]

Many investors only buy securities by issuers with an ESG rating above a certain threshold. Credit rating agencies too now take resilience to ESG risks into consideration. In 2019, Moody's cited ESG concerns as an emerging threat to Exxon Mobil.

Equity markets already price these risks in companies' valuations. Credit markets will increasingly do so in bond prices and credit spreads.

Source: Bloomberg



Source: Bloomberg

7. ClientEarth, Major court win shows power of corporate law to fight climate change
8. Rocky Mountain Institute, Carbon Tracker Initiative, Sierra Club, How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just
9. Swiss Sustainable Finance, SSF Engagement Initiatives
10. Institute for Energy Economics and Financial Analysis, Financial institutions are restricting thermal coal funding
11. International Financing Review, Big Tobacco brushes off move to stub out finance
12. Task Force on Climate-related Financial Disclosures, Recommendations of the Task Force on Climate-related Financial Disclosures
13. UK, UK joint regulator and government TCFD Taskforce: Interim Report and Roadmap
14. New Zealand, Mandatory climate-related financial disclosures
15. Autorité des Marchés Financiers, Sustainable finance and collective management: the AMF publishes a first policy on investor information
16. TriplePundit, Millennials Will Force an ESG Revolution

Carbon Pricing

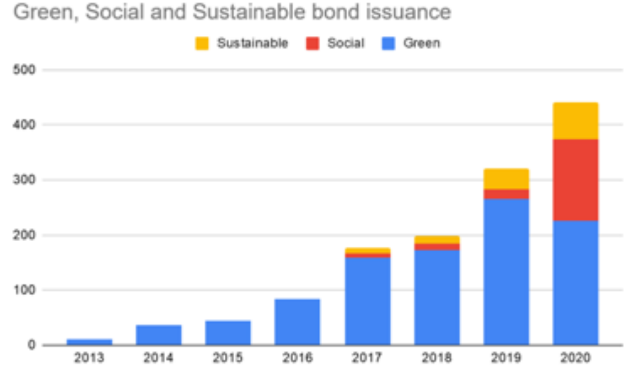
Externalities of greenhouse gas (GHG) emissions are not accurately priced in the cost of energy. Yet, more and more, they are incurring a cost through carbon tax or emissions trading systems (ETS). Many companies calculate or charge a carbon levy in internal operations. Some are increasing the price per tonne to levels much higher than market ones (€25 in the EU ETS). For example, Novartis and Swiss Re set it at $100.[17] [18]

Sustainable finance

Global banks have pledged >$3tn in sustainable finance. This includes mostly loans granted and bonds & equity placed (some also add assets under management and M&A advisory volumes).

In loans, the growth has been driven by sustainability-linked loans: $150bn were granted in 2020.

In bonds, issuance of Green, Social and Sustainability (GSS) bonds has boomed: $440bn in 2020, surpassing $1 trillion outstanding.



The COVID-19 pandemic played a role in the increase in social bonds. The EU has issued €39.5 (out of €100) billion for temporary Support to mitigate Unemployment Risks in an Emergency (SURE).

Issuers publish frameworks to provide investors with the information and commitment to earmark the proceeds to specific projects and assets with ESG benefits.

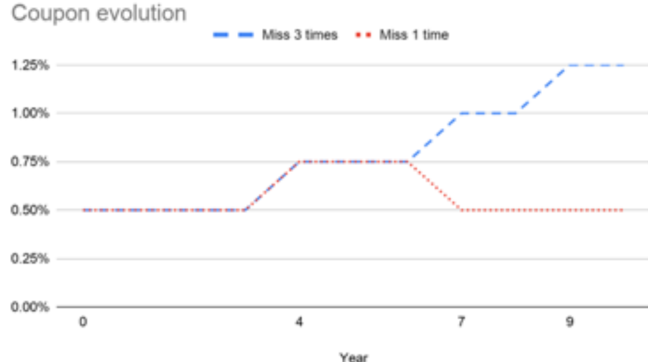
Typical eligible categories in Green Bond Frameworks include renewable energy, energy efficiency, green buildings, clean transportation. For example, the majority of BNP Paribas' loans are for projects in offshore wind and solar photovoltaic energy.[19]

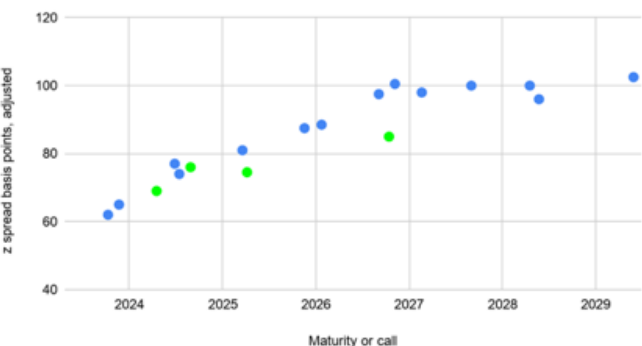
The eligible categories for a Sustainability bond are wider. For example, ANZ used 37% of its proceeds for access to essential services (hospital and aged care).[20]

Bondholders have no leverage over management once their money has been spent. In the case of Mexico City Airport Trust, it didn't even get spent. Also, GSS projects may be part of ordinary business activity. Therefore, ESG investors may not really improve the issuer's ESG credentials. A different kind of debt is emerging: Sustainability linked bonds (SLBs). The issuer can use the proceeds for its general corporate purposes. However, it commits explicitly to improvements in predefined ESG objectives within a specific timeline. The financial and/or structural characteristics of the bond will become less favorable to the issuer if it doesn't achieve them. So far, the main tool has been a coupon step up. To support the growth of SLBs, the ECB will make them eligible as collateral and for asset purchase programs from 2021.

Issue date	Issuer	Key Performance Indicators (KPI)	Target	Year	Step-up
10/2019	Enel	Renewable capacity installed as % of total	≥55%	2021	0.25%
10/2019	Enel	Direct GHG emissions	125 g/kWh	2030	0.25%
9/2020	Suzano	Carbon intensity of products		2025	0.25%
9/2020	Novartis	Patient reach to a number of drugs in lower-middle income countries	≥200%	2025	0.25%
		Patient reach to its programs for malaria, leprosy, Chagas and sickle cell diseases	≥50%	2025	0.25%
9/2020	Chanel	Scope 1 and 2 GHG emissions	-50%	2030	0.5% & 0.75%
10/2020	Enel	Renewable capacity installed as % of total	≥60%	2022	0.25%
11/2020	Lafarge Holcim	Net CO2/ton of cementitious material	≤475 kg (-15%)	2030	0.75%
11/2020	Schneider Electric	800 megatons of saved and avoided CO2 emissions to customers	Average score 9/10	2025	0.50%[21]
		Gender diversity hiring: 50% women, 40% women among front-line managers, 30% women in leadership teams			
		1 million underprivileged people trained in energy management			

17. Novartis, Climate
18. Swiss Re, News release
19. BNP Paribas, 2019 Green bond reporting
20. ANZ, Use of proceeds report
21. This is a zero-coupon convertible bond. The 0.5% of the nominal unit value is the premium payment amount.





As credibility in the product builds, SLBs should have a similar premium to green bonds.

Green Premium

Green bonds rank pari-passu with bonds of the same rank and issuer. Though, other things being equal, the spread of green bonds trades around 5 to 10bps tighter than non-green ones in seniors.

The green premium exists because the demand for ESG assets is outstripping the supply due to the growth of ESG mandates. Indeed, the multiple of oversubscription for green bonds are higher than conventional ones, and new issue concession is lower. Over time, this factor should diminish as supply builds up.

Many funds are now measured on their ESG score as well as financial performance. Therefore, they'll always switch from a conventional bond into a green one for the same spread.

Furthermore, the amount of short positions is very low due to the lower liquidity. Whenever a bond is shorted, it will need to be repaid and eventually bought back. This is profitable when the time span is short and the drop in value is large. However, most holders are not actively switching out of green bonds. And market makers are reluctant to sell short as they will incur ageing taxes for holding stale line items on their balance sheet for months. The low amount of shorts makes green bonds less volatile than conventional ones.

The green premium may increase if the European Central Bank dropped the market neutrality principle in the next strategy review in 2021. In its asset purchase programs, it could buy more green bonds rather than in proportion to the overall market.

Some Senior Non-Preferred (SNP) bonds give the issuer the option to call the bond one year ahead of final maturity. This is because the computations of Total loss-absorbing capacity (TLAC) and Net stable funding ratio (NSFR) exclude seniors shorter than 1 year. Therefore, it is more efficient to call and refinance 1 year ahead. Even if the call should be almost certain, investors require an additional compensation for this option: callables trade wider than bullets. In order to construct a curve and compare callables with bullets, the call date (not the final maturity) is used and the quoted z spread of a callable is adjusted by subtracting the perceived value of the call. In this case: 10bps.

Financials GSS Bonds

Financial institutions have issued their own GSS bonds. In 2020, more than 10% of the total fins issuance in € was GSS. This supply can be limited by the availability of GSS projects to finance.

The € market has attracted supply from Europe/UK/Switzerland and also from 4 Chinese, 3 Japanese, 3 Australian, 3 Korean and 2 North American banks.

Notional outstanding bn	€	$	£	Total
Green	69	15	2	86
Social	12	5	0	17
Sustainability	5	4	0	9
Sustainability linked	0	0	0	0
Total	**86**	**24**	**2**	**112**

So far, there has been no sustainability-linked bond. European Union regulation stipulates that liabilities only qualify as eligible capital instruments provided they do not include any incentive for their principal amount to be called, redeemed or repurchased prior to their maturity or repaid early by the institution. Bonds cannot contain features (e.g. coupon step-ups) that provide, at the date of issuance, an expectation that they are likely to be redeemed.

A potential future solution could be step-down structures, where the issuer is rewarded when meeting its targets, instead of being punished for missing them.

Most of fins GSS bonds are in Senior Non-Preferred (SNP) seniority. Tier 2 and Tier 1 represent only 8% of the total bond notional outstanding. A simplified capital structure of financials is found in the appendix.

Seniority	Green	Social	Sustain	Total
Covered	11	5	2	**18**
Seniors	68	12	6	**86**
T2	6	0	1	**7**
T1	1	0	0	**1**

More issuance of T2 and T1 in GSS format could provide an ESG multiplier. Senior funding can be obtained in various ways, including the interbank market and central banks facilities. However, subordinated T2 and T1 are almost always raised by issuing bonds to institutional investors. Banks and insurers are required to hold capital by regulators.

From the investors standpoint, the leverage that capital allows means the equivalent amount used for positive lending is higher. They also have more power to demand that companies set more ambitious targets. This power could increase exponentially in difficult markets with higher refinancing risk. Even if the issuer decides not to call a bond instead of refinancing it, that still has a large cost for the reputational repercussion to the rest of the capital structure.

From the issuer standpoint, the cost saving is larger. Given the average z spread for T2/T1 is much higher than for seniors, the premium will be more than 10bps. Arguably, as GSS bonds have a lower volatility, the premium for a GSS T2/T1 could be even larger given volatility plays a larger role for T2/T1 than for seniors.

Also, fins GSS bonds have a shorter average maturity than conventional ones: ~6y in € and ~5y in $ at issue. Even though climate risk has a long horizon.

Alignment of Loan Books and Investment Portfolios

Financial institutions will need to align their loans and investments with the Paris Agreement commitments, reducing their carbon intensity. The methodology for computing financed emissions has not been standardized. However, the benefits of committing to helping the transition will outweigh the disadvantages of an imperfect model. The Paris Agreement Capital Transition Assessment (PACTA) provides climate scenario analysis for borrowers' capital stock and expenditure plans.

Targets can be set with a sector-based approach such as the Science Based Targets initiative's Sectoral Decarbonization Approach (SBTi SDA). This takes into consideration the different transition pathways for each sector of the economy. As a collateral benefit, financial institutions gain insights into the trends for each sector and can responsibly engage with borrowers on their respective climate actions.

As an example, these are some of the targets ING committed to within each portfolio:

- power generation: reduce its kg CO_2 per MWh by 60% by 2040
- thermal coal mining: $0 by 2025
- commercial real estate: 0 kg CO_2 per m^2 by 2040[22]

Sustainability-linked targets would help financial institutions to integrate ESG into the core of their business, measure progress, hold accountable and make good on promises. At the same time, monitoring lending and investments to climate-sensitive sectors reduces stranded asset risk and lowers probabilities of default as some corporates may be vulnerable in the case of an abrupt transition to a low-carbon economy. Therefore, it reduces the credit risk of loan books and investment portfolios.

In the future, the institutions that perform better on their targets will benefit from higher share price multiples, lower liabilities costs and capital requirements.

22. ING, Terra report

APPENDIX: THE CAPITAL STRUCTURE IN FINANCIALS

The table below is a simplified capital structure of banks in order of seniority in default. The second column is an average z spread of European banks bonds, expressed in basis points. The z spread of a bond is a measure of its credit risk and can be approximated to the difference between its yield and the corresponding swap rate.

Liabilities & Equity	Z spread
Secured obligations	10
Deposits	–
Derivatives Preferred / OpCo senior unsecured	40
Non-preferred / HoldCo senior unsecured (SNP)	70
Tier 2 (T2)	140
Tier 1 (T1)	400
Common Equity Tier 1 (CET 1)	–

The contractual and statutory characteristics of bonds are different across jurisdictions. For example, within Tier 1, Additional Tier 1 in Europe has a mandatory trigger for write-down or conversion into equity; preferred securities in the US do not, though they can still be wiped out at the regulator discretion (point of non-viability).

Also, Switzerland will not have Tier 2 in the future. Instead, Australia will not have SNP, but issue more Tier 2.

A simplified capital structure of European insurers:

Liabilities & Equity	Z spread
Policyholders benefits	–
Senior unsecured	50
Tier 3 (T3)	100
Tier 2 (T2)	180
Restricted Tier 1 (RT1)	400
Common Equity Tier 1 (CET 1)	-

Regulators impose minimum requirements in % of Risk Weighted Assets (RWAs) for banks and Value at Risk for insurers. There is disparity across the sector, a median amount of SNP a European bank is expected to hold is 7.5% of RWAs, 3% in T2, 2% in T1, 13.5% in CET1.

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