Nordic Sustainable Quarterly - New record year for sustainable bonds

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Summary

- The Nordic sustainable bond market has shown consistent growth year after year. In 2024 the market will set another record, with a total YTD issuance volume of EUR57bn from some 179 Nordic issuers (2023: EUR56.2bn and 153 respectively). The sustainable market's share of total bond issuance also rose to 23%.
- In the next few years, the Nordic sustainable bond market will face a "maturity wall", with some EUR60bn equivalent of bonds maturing in 2025 and 2026 (2023-24: EUR28bn). The FIG and real estate sectors make up a large share of the upcoming bond maturities.
- In this edition of the Nordic Sustainable Quarterly, we also present summaries of two recent publications from Danske Bank Credit Research: Affordable Housing in the Nordics ("Diverging Pathways") and ESG risks for Nordic banks ("Lending in focus").
- In the final part of this publication, we present a summary of a White Paper published by Danske Bank ("Welcome to the Jungle") regarding the impact of the EU Deforestation regulation on listed Nordic companies.

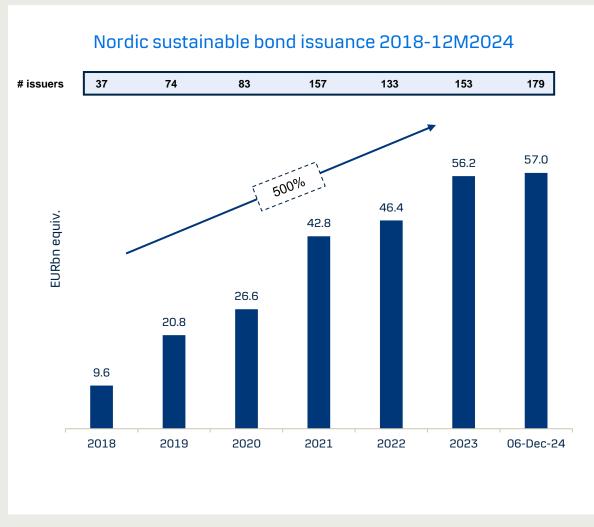


Agenda

- 1. Nordic sustainable issuance trends 2024
- 2. Affordable Housing in the Nordics
- 3. Nordic banks and ESG risks
- 4. White Paper on EU Deforestation Regulation



The big picture - Nordic sustainable bond market has grown sixfold since 2018

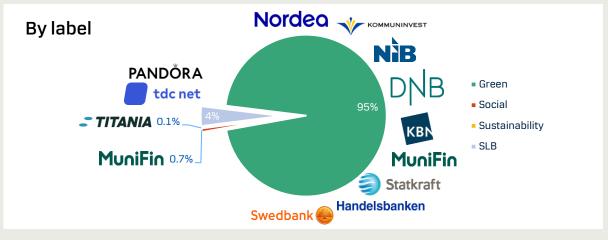


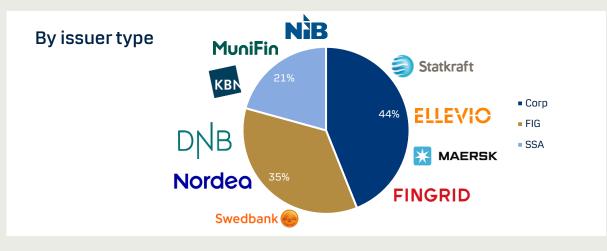
Key take-aways

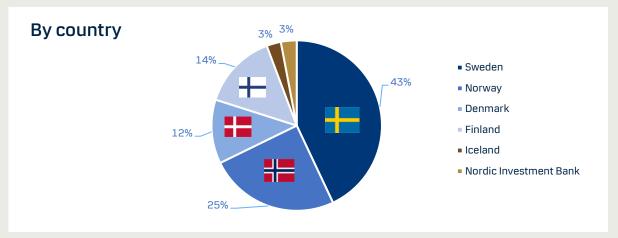
- The Nordic sustainable bond market has grown by 500% between 2018-2024 from EUR 9.6bn to EUR 57bn. The growth has levelled off in the most recent years, but what is noteworthy compared to the Global and EUR markets is that the Nordic market has shown consistent growth, year after year, and set a new record again in 2024.
- We also note that during the same timeline, the number of issuers active in each year has risen from 37 in 2018 to 179 in 2024, again highlighting the more diverse base of the Nordic sustainable bond market today.
- In addition, together with the overall growth, the share of sustainable out of total issuance has increased.
 While in 2020, 11% of all Nordic bond issuance was in a sustainable format, in 2024 the share had grown to 23%.
- There are significant differences in the share of sustainable bonds out of total bond issuance across the
 different issuer types. The share is highest in the corporate space with 37% whereas in the FIG (19%) and
 SSA (17%) space, sustainable bonds contribute somewhat less to overall market activity.
- The Nordic market is also very green driven and in 2024, 95% of all sustainable bond issuance was in
 green format. This is significantly higher than e.g. in the EUR market where green is also the dominant
 format but contributed clearly less with around 75%. In the Global market, the share of green is even
 slightly lower at around 65-70%. We identify three reasons for this difference and the overall growth in
 green:
- In both the Global and EUR sustainable markets, SSA (public sector) is the largest issuer segment, and these issuers are more likely to issue social and sustainability bonds. In contrast, in the Nordics, corporates are the largest issuer segment in the sustainable bond market.
- 2) Nordic countries have a global front-runner position in the green transition, which is also evident in the high share of green bonds issued by Nordic utilities and real estate sector issuers. Utilities sector issuers need green financing to fully decouple their energy systems from fossil-based production to be based on renewable and low carbon sources. Real estate sector issuers, in turn, are key in achieving country-level carbon neutrality targets as buildings and construction account for a significant share of total GHG emissions and energy consumption. Hence, vast amounts of new financing is needed to be directed towards energy-efficient buildings via new buildings and renovation.
- 3) Third, albeit less significant, is the lower issuance volumes of SLBs globally, as both issuers and investors seem to have a clear preference for green over SLBs.
- In terms of country level breakdown, Sweden is the biggest player with 43% share of the market followed by Norway (25%), Finland (14%) and Denmark (12%). In addition, both Iceland and Nordic Investment Bank contributed 3%. Notably, Sweden significantly increased its share of Nordic sustainable bond issuance from last year, and a big contributor to this change was the reinvigorated real estate sector issuance.

The big picture (continued)









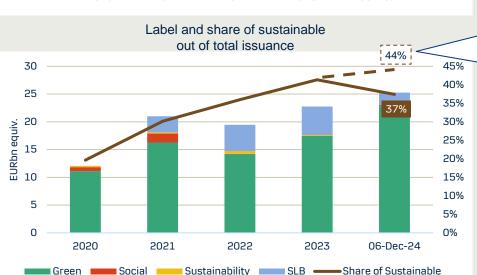
Nordic corporate sustainable bond issuance - +11% vs. 2023

Issuers - 101

Volume +11% vs. 2023

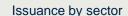
Key take-aways

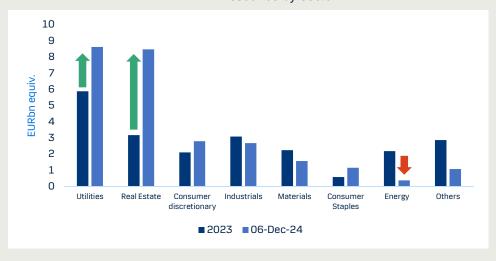




- Volume: In 2024, issuance conditions have been favourable, and overall market activity has been higher than in 2023 or in 2022. This has also been visible in the Nordic corporate bond market, where sustainable bond issuance is up by 11% compared to 2023.
- Label: the Nordic Corporate sustainable bond market is very green driven and 90% of deals have been issued in green format this year, up from 77% the year before. In contrast, SLB issuance has dropped from 2023 and only contributed 9% of total market activity, reflecting issuers' preference for green over SLB as well as the structural challenges with the product (investors find it hard to evaluate the ambitiousness of SLB KPIs).
- Share of sustainable of total issuance: 37% of total Nordic corporate bond issuance has come in sustainable format this year. This is four percentage points less compared to 2023 when 41% of all issuance was in sustainable format. However, we want to point out that without Novo Nordisk and DSV's jumbo deals, the share of sustainable would have been 44%. Especially DSV's multi-tranche issuance was more of a one off than a regular occurrence given its EUR 14.3bn acquisition of Deutsche Bahn's logistics arm, Schenker AG, which DSV will partially finance by debt capital raised from the bond market.
- Issuance by sector: Similar to last year, utilities sector issuers have been the biggest contributors, but it is worth mentioning that real
 estate sector issuers which are typically very interest rate sensitive issuers have increased their issuance the most in line with more
 favourable market conditions. One of the sectors where we have seen less issuance is the energy sector to which Vestas and Neste
 heavily contributed in 2023.

The share of sustainable out of total Nordic corporate issuance if we exclude Novo Nordisk (EUR4.65bn) and DSV (EUR5.0bn) jumbo deals which were issued in conventional format.

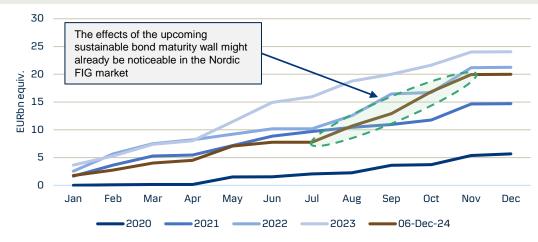




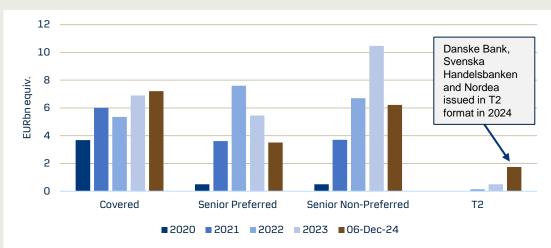
Nordic financials sustainable bond issuance - -17% vs. 2023

Issuers - 57





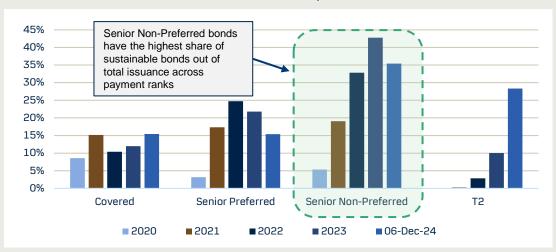
Issuance of ESG labelled bank bonds



Key take-aways

- Volume: The year 2024 has been rather divided in the Nordic FIG sustainable bond market. While the issuance in the
 first half of the year was very muted, 48% down compared to the same time last year, in the second half we saw a clear
 pick up in issuance. In fact, FIG issuers contributed approximately half of all Nordic sustainable bond issuance in H2
 2024. We think that this might be something to do with the upcoming sustainable bond maturity wall, as in 2025 and 2026
 EUR 60bn worth of sustainable bonds issued by Nordic issuers will mature and over half of them are issued by FIG
 issuers.
- Label: 100% of the sustainable Nordic FIG issuance has been in green format which is similar to last year. However, last year we also saw the inaugural social bond in the Nordic FIG market issued by Swedbank.
- Share of sustainable of total issuance: 19% of the total issuance has been in sustainable format, which is a slight reduction compared to last year when 20% was in sustainable format.
- Payment rank: A few years back, sustainable bond issuers in the financials space issued their first sustainable bonds in Covered bond format financing primarily mortgages of high energy efficiency residential buildings. Over time, sustainable bond issuance has moved to comprise also Senior Preferred and Senior Non-Preferred sustainable bonds of which Senior Non-Preferred bonds have gained more popularity given the pricing benefits being the most pronounced in that format. The latest development in the sector has been the issuance of T2 bonds in sustainable format by major Nordic banks such as Nordea, Svenska Handelsbanken and most recently Danske Bank.

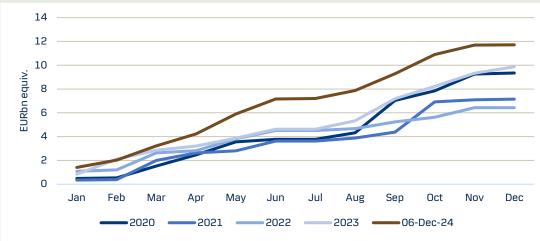
Share of sustainable per rank of debt



Nordic SSA sustainable bond issuance - +19% vs. 2023

Issuers - 21





Label and share of sustainable out of total issuance

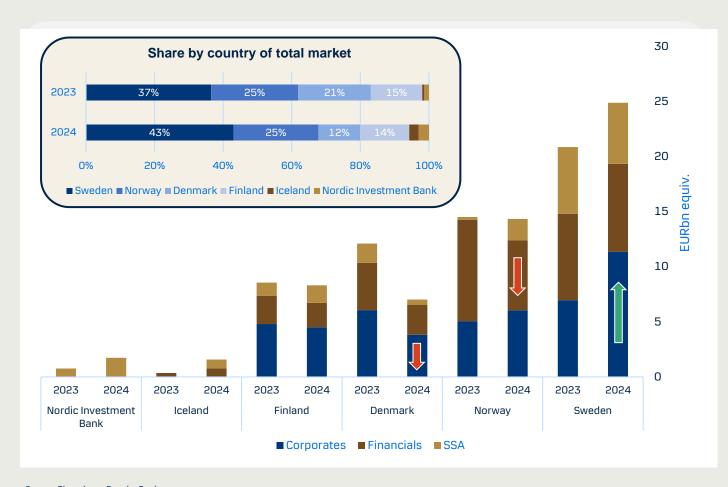


Key take-aways

- Volume: SSA issuer segment is the smallest of the three issuer segments (Corp, FIG and SSA) in the Nordics and contributed 21% of overall Nordic sustainable bond market activity. In EUR equivalent terms this meant close to 12bn worth of new sustainable bonds was made available to investors in 2024. It was also 19% more than in 2023.
- Label: 98% of the sustainable Nordic SSA issuance was in green format. This is in stark contrast to the EUR sustainable bond market where green bonds contributed "only" 60% and the rest was evenly distributed between social and sustainability bonds.
- However, we expect to see a slight increase in social and sustainability bonds going forward given City of Malmö (March 2023), City of Helsingborg (April 2023) and most recently Municipality of Linköping (May 2024) have published social or sustainability bond frameworks.
- In addition, the largest Nordic green bond issuer, Kommuninvest, has communicated that it is preparing an issuance of a social bond during the first half of 2025. Furthermore, another major Nordic municipality financier and sustainable bond market pioneer in the Nordics, MuniFin, has publicly disclosed that it is targeting an 8% share of its long-term customer finance portfolio consisting of social finance by 2030 along with a 25% target for green finance within the same timeline.
- The Nordic or rather Swedish specialty is also sustainability-linked bonds issued by municipalities although in 2024 only the Municipality of Uppsala engaged with the product by issuing a SEK 300m SLB in May.
- Share of sustainable of total issuance: 17% of the total issuance was in sustainable format, which is a two percentage point increase on 2023, and at a clearly higher level compared to 2020-22 when the share of sustainable stayed at around 10-12%.
- **Framework updates**: Another thing worth noting is that NIB, KBN and Kommuninvest which are all among the top 5 Nordic sustainable bond issuers based on volume, updated their green bond frameworks in 2024. This showcases these issuers' continuous commitment to further contribute to the development of green bond market and willingness to provide an example for other issuers.
- Impact reporting: The importance of impact reporting has gained traction recently. As a response to this and
 based on overall market developments, the fourth edition of the Nordic Public Sector Issuers Position Paper on
 Green Bonds impact Reporting was published in March this year with 12 Nordic SSA sector issuers as signatories.
 The Position Paper aims to foster robust, transparent, and pragmatic reporting practices for green bonds.
- The paper addresses both allocation and impact reporting, providing a practical user guide for issuers. It reflects best market practices and aligns with international reporting guidance from the ICMA Green Bond Principles, IFI Framework, and Greenhouse Gas Protocol.
- The most notable change is the revised emission factor for electricity: The baseline emission factor for electricity
 has been revised downwards, from 315 g CO₂e/kWh to 191g CO₂e/kWh. For reference, the EU-27 country average
 was 258 CO₂e/kWh in 2022.

Sweden the biggest contributor in the Nordic sustainable bond market - growth coming mainly from the real estate sector

Issuance by country and by issuer types



Main changes vs. 2023

Swedish corporates

Swedish corporates increased sustainable bond issuance by EUR 4.4bn in 2024 compared to 2023. When looking further into the figures, we notice that this increase is almost entirely due to the higher activity in the Swedish real estate sector. Real estate sector issuance was heavily dampened in the high interest rate environment in 2022 and 2023, but in 2024 this trend was clearly reversed under more favourable market conditions. In 2023 Swedish real estate issuers issued EUR 2.9bn worth of sustainable bonds, while in 2024 this amount jumped to EUR 7.0bn.

Danish corporates

- Danish corporates include a relatively few active issuers and therefore only a
 couple of the usual suspects being away from the markets or issuing less will
 immediately show up as a lower tally of issuance. This seems to have been the
 case in 2024, when the largest corporate green bond issuer in the Nordics, Ørsted,
 issued only one green bond of EUR 750m vs. over EUR 2bn the year before, and
 wind turbine manufacturer Vestas didn't issue at all, contrary to both 2022 and
 2023 when it issued EUR 1bn of SLBs in each of the years.
- Further to the lower issuance from Denmark, Kingdom of Denmark didn't issue any green bonds in 2024 as it did in 2023.

Norwegian FIG

• We are speculating somewhat here but as a rule of thumb, FIG issuers are inclined to issue sustainable bonds when markets are a bit rougher to de-risk trades. This is especially true for smaller banks such as various Norwegian savings banks which we have seen issuing green bonds in previous years. However, in 2024, markets have thrived in general, so there has perhaps been less incentive to issue in sustainable format. Another factor could also be that there has been less available assets to use for green funding but that would lead us to another question – why is that?

Sustainable bond "maturity wall" in the Nordics

Sustainable bond maturity wall globally and in the Nordics

- The first large generations of sustainable bonds are approaching maturity. Between January 2025 and December 2026, EUR 855bn of sustainable bonds globally will mature.
- To put this into context by the end of 2023, just over EUR 400bn of sustainable bonds in total had matured since the sustainable bond market emerged less than 20 years ago and got to full speed in the latter part of the 2010s and early 2020s.
- A similar development to the global market is also detected in the Nordic sustainable bond market where EUR 60bn worth of sustainable bonds will mature in 2025 and 2026.
- This amount can be contrasted with:
 - ➤ The three-year annualised average sustainable bond issuance of EUR 53bn equivalent in the Nordic market, and
 - > EUR 28.2bn of sustainable bonds that matured in 2023-24

What does this mean to issuers?

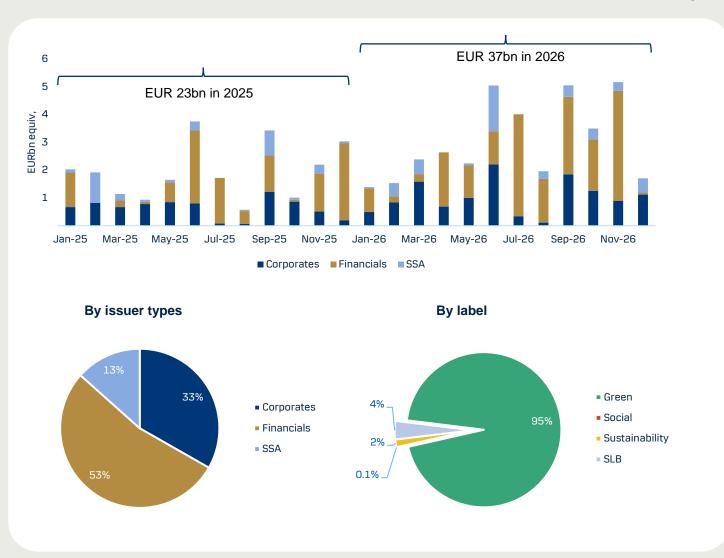


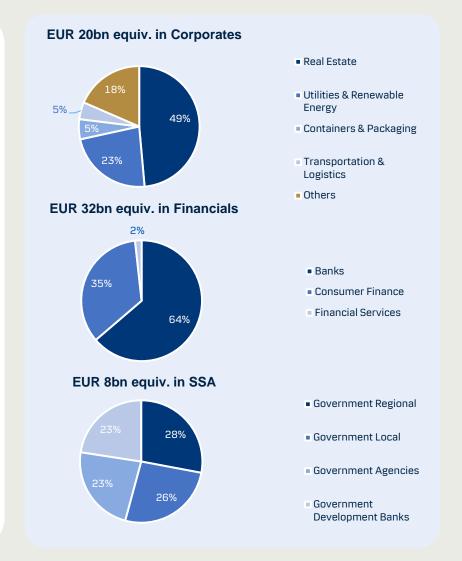
- The market is likely to see heightened issuance volumes from existing issuers looking to refinance - but many of them may have to update their frameworks to meet the evolving expectations of investors or revert to 'plain vanilla' bonds.
- The maturity wall also shows a maturing of the sustainable bond market which is now moving towards an actual bond market in which investors have to treat investing in this asset class the same way as conventional bonds.
- Nevertheless, we see this as a great opportunity for sustainable bond issuers as investors will seek new investments to replace maturing sustainable bonds.

Segments to keep a close eye on

- Of the EUR 60bn maturing sustainable bonds, some 53% are from FIG issuers and we have already seen some signs of higher issuance activity in H2 2024 in that part of the market.
- Another issuer segment which will face a clear "maturity wall" is real estate which comprises 49% or EUR 10bn of Nordic corporate sustainable bonds maturing in 2025 and 2026.

Sustainable bond "maturity wall" in the Nordics (continued)





What do Nordic issuers actually finance with use of proceeds bonds?

Nordic Corporates

Top 5 issuers in 2024:

- 1) Statkraft, 2) Ellevio, 3) AP Moeller Maersk, 4) Fingrid, 5) Statnett
- Close to 2/3 of Nordic corporate sustainable bond issuance in 2024 was from the utilities and real estate sectors.
- Utilities sector issuers finance predominantly renewable energy projects to support the energy transition away from fossil-based production. Real estate sector issuers in turn use the funds to convert the national building stocks to more energy efficient via renovations and new construction.
- One of the Nordic specialties is also a relatively high share of sustainable forest management in green bond allocations.
 Issuers like UPM, Stora Enso, Sveaskog and Tornator allocate the majority of the funds received from green bonds to this category.
- After these categories, clean transportation comes next.
 Clean transportation projects can take many different forms such as electric vehicles, electric rail and train transport or in Maersk's case, methanol-enabled-dual fuel vessels.
- In 2024, we also saw many debut issuers such as Topsoe which is part of hydrogen & derivatives value chain a value chain crucial to the green transition.
- Topsoe plans to use the funds for construction and modification of a new plant manufacturing Solid Oxide Electrolyzer Cells (SOEC) to produce green hydrogen.

Nordic Financials

Top issuers in 2024:

- 1) DNB, 2) Nordea, 3) Swedbank, 4) Svenska Handelsbanken,
 5) Nykredit Realkredit
- Around 2/3 of the total activity is from the top 10-15 issuers which include Nordic tier 1 and 2 banks.
- Large Nordic banks typically have wide-ranging green finance frameworks including multiple green project categories.
- The core principle is that financial sector issuers can issue sustainable bonds to an amount equalling the sustainable (green and in some cases social) loans granted to their clients.
- Based on historical allocations, the green buildings category is by far the most used green project category with renewable energy and clean transportation projects also receiving relatively high allocations from some issuers' green bond programmes such as DNB and Nordea.
- In 2024, Nordic financials sustainable bond market
 consisted 100% of green bonds in terms of new issuances
 but in 2023 Swedbank issued an inaugural EUR 500m social
 bond. 57% of the funds of that bond were allocated towards
 employment generation targeting populations in
 socioeconomically weak or rural areas with high
 unemployment rates, and 40% towards socioeconomic
 advancement and empowerment projects targeting
 improving access to finance for female-owned SMEs.

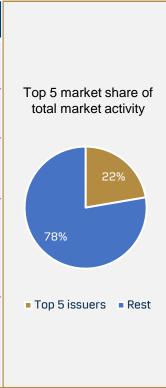
Nordic SSA

Top issuers in 2024:

- 1) Nordic Investment Bank (NIB), 2) Munifin, 3)
 Kommunalbanken (KBN), 4) Kommuninvest, 5) Iceland
- Over 60% of the total activity was from the top 5 issuers.
- The Nordic SSA sustainable bond market is dominated by the municipality financiers of the four largest Nordic countries (Denmark, Finland, Sweden and Norway) together with NIB, the international financial institution owned by the Nordic and Baltic countries.
- Combined, these five issuers have tens of billions of euros worth of sustainable bonds outstanding and represent the most experienced issuers in the Nordic market, having updated their frameworks a few times and issued sustainable bonds since the early 2010s.
- When looking into these issuers' historical sustainable bond allocations reports, green buildings category has received most of the allocations, followed by clean transportation, renewable energy and water and wastewater management.
- However, we note that especially renewable energy projects have gained more traction recently. This is evident e.g. in NIB's August 20204 updated framework, in which renewable energy project category is expected to receive majority of the allocations.
- In addition, biodiversity and climate adaptation projects are categories that we expect to receive small but increasing allocations going forward, together with social projects.

Nordic Corporates – Top 5 issuers in 2024

Issuer	Country	Industry	Amount (EURm equiv.)	By currency (EURm equiv.)	# bonds & label	Framework dated	Framework categories + historical allocations, min. 10% highlighted	SPO	
Statkraft	NO	Power Generation	1,725	EUR:1,000m NOK: 447m SEK: 278m	8x Green	Apr-22	Renewable energy (100%) Clean Transportation	S&P (CICERO)	
Ellevio	SE	Utilities	1,109	SEK: 609m EUR: 500m	5x Green	May-23	1. Renewable energy (100%)	ISS ESG	Top 5 market share of total market activity
AP Moller - Maersk	DK	Transportation & Logistics	1,000	EUR: 1,000m	2x Green	Feb-24	1. Clean transportation (100%) 2. Energy efficiency 3. Green buildings 4. Climate adaptation	S&P	22%
Fingrid	FI	Utilities	1,000	EUR: 1,000	2x Green	Jul-23	1. Renewable energy (100%)	ISS ESG	78%
Statnett	NO	Utilities	781	EUR: 500m SEK: 154m NOK: 127m	4x Green	Apr-24	1. Renewable energy (100%)	S&P	■ Top 5 issuers ■ Rest



Nordic Financials - Top 5 issuers in 2024

Issuer	Country	Industry	Amount (EURm equiv.)	By currency (EURm equiv.)	# bonds & label	Rank	Framework dated	Framework categories + historical allocations, min. 10% highlighted	SPO	
DNB ¹	NO	Banks	3,405	SEK: 2,074 EUR: 1,000 CHF: 331	8x Green	5x Covered 2x Sr Preferred 1x Sr Non-Preferred	Oct-23	1. Green residential buildings (59%) 2. Clean transportation (22%) 3. Renewable energy (19%)"	Sustainalytics	
Nordea ²	FI	Banks	2,655	EUR: 1,500m NOK: 597m SEK: 528m	4x Green	2x Covered 1x Sr Non-Preferred 1x Tier 2	Jan-24	1. Renewable energy (15%) 2. Energy efficiency 3. Green buildings (65%) 4. Pollution prevention and control 5. Clean transportation 6. Sustainable management of living natural resources	ISS ESG	Top 5 market share of total market activity
Swedbank	SE	Banks	2,393	EUR: 1,250m SEK: 1,143m	5x Green	3x Covered 1x Sr Non-Preferred 1x Sr Preferred	Sep-22	Green: 1. Renewable energy 2. Energy efficiency 3. Green Buildings (84%) 4. Sustainable management of living natural resources and land use 5. pollution prevention and control 6. Sustainable water and wastewater management 7. Clean transportation 8. Climate change adaptation Social: 1. Employment generation (57%) 2. Affordable housing 3. Socioeconomic advancement and empowerment (40%) 4. Access to essential services – Education and Healthcare	ISS ESG	44%
Svenska Handelsbanken	SE	Banks	2,000	EUR: 2,000	3x Green	2x Sr Non-Preferred 1x Tier 2	Aug-22	1. Clean transportation 2. Climate change adaptation 3. Energy efficiency 4. Environmentally sustainable management of living natural resources and land use 5. Green buildings (87%) 6. pollution prevention and control 7. Renewable energy 8. Sustainable water and wastewater management"	S&P (CICERO)	■ Top 5 issuers ■ Rest
Nykredit Realkredit	DK	Consumer Finance	661	SEK: 661	3x Green	2x Sr Non-preferred 1x Covered	Mar-23	1. Green buildings (85%) 2. Renewable energy 3. Clean transportation 4. Energy distribution and storage 5. Manufacturing 6. Sustainable water, sewage and waste management 7. Sustainable management of living natural resources and land use 8. Climate change adaptation"	Sustainalytics	

¹ DNB includes DNB Bank ASA and DBN Boligkreditt AS

² Nordea includes Nordea Bank Abp, Nordea Hypotek AB, and Nordea Eiendomskreditt AS

Nordic SSAs - Top 5 issuers in 2024

Issuer	Country	Industry	Amount (EURm equiv.)	By currency (EURm equiv.)	# bonds & label	Framework dated	Framework categories + historical allocations, min. 10% highlighted ¹	SP0	
NIB	SNAT	Supranationals	1,732	EUR: 1,250m SEK: 264m NOK: 218m	5x Green	Aug-24	1. Renewable energy [26%] 2. Sustainable fuel production and infrastructure 3. Clean transportation [23%] 4. Green buildings [26%] 5. Water management and protection [13%] 6. Climate change adaptation 7. Sustainable technology innovation, sustainable manufacturing and carbon capture	S&P	
MuniFin	FI	Government regional	1,606	USD: 914m NOK: 346m SEK: 346m	3x Green 1x Social	Green: Aug-22 Social: Mar-20	Green: 1. Buildings (67%) 2. Transportation (25%) 3. Renewable energy 4. Water and wastewater management Social: 1. Social housing projects (20%) 2. Welfare projects (77%) 3. Education projects	Green: S&P (CICERO) Social: ISS ESG	Top 5 market share of total market activity
KBN	NO	Government agencies	1,602	EUR:1,000m SEK: 397m CAD: 205m	6x Green	Apr-24	1. Buildings (71%) 2. Renewable energy 3. Transportation (10%) 4. Waste and circular economy 5. Water and wastewater management (13%) 6. Land use and area development projects 7. Climate change adaptation	S&P	39%
Kommuninvest	SE	Government regional	1,401	EUR: 1,000m SEK: 401m	2x Green	Jun-24	1. Renewable energy (16%) 2. Energy efficiency 3. Water management, pollution prevention and control, control of GHG emissions (15%) 4. Green buildings (61%) 5. Clean transportation 6. Sustainable water and wastewater management 7. Climate change adaptation 8. Biodiversity	S&P	■ Top 5 issuers ■ Rest
lceland	IS	Sovereigns	800	EUR: 800	1x Green 1x Social	Apr-23	Green: 1. Clean transportation, 2. Renewable energy, 3. Green buildings, 4. Management of living natural resources & land-use, 5. Circular economy and emission reduction, 6. Climate change adaptation, 7. information and communication Blue: 1. Clean vessels, 2. Pollution prevention and control, 3. Management of living natural resources, 4. Sustainable water and wastewater management Social: 1. Access to essential services – education, 2. Access to essential services – healthcare, 3. Access to essential services – social inclusion, 4. Affordable housing and infrastructure, 5. employment generation and socioeconomic advancement and empowerment	S&P (CICERO)	

¹ Iceland issued its first sustainable bonds in 2024, so historical allocations not yet available and none of the categories is highlighted

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Can we really talk about one Nordic model?

SWEDEN - The neoliberal socialist

- Large share of public properties via municipality-owned property companies
- Rents set via collective negotiations private and public landlords act according to same framework
- · Few targeted social support measures

DENMARK - Large share of public properties

- Large share of public properties via almene boliger. The social housing sector uses the National Building Fund as a savings account, via a closed circuit
- There is also a state support system for the financing of social housing loans
- More recent state intervention to deal with "the parallel society"



NORWAY - A land of house owners

- Public rented sector makes up only a minor share of the overall housing market
- State support is focused on helping low-income households to buy their own dwelling
- State Housing Bank plays a central role

FINLAND - The responsible liberal

- Finland deregulated the rental market in the 1990s and moved to a market-based system
- At the same time, the Finnish state supports the production of social housing for weaker groups
- The central view in Finland is that everyone is entitled to comfortable housing

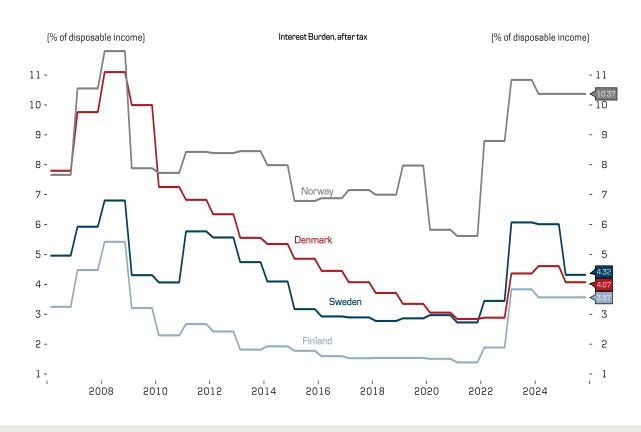
ICELAND - Strong norm of home ownership

 Largest share of market is privately owned, but with some public properties. The 2008 banking crisis a "game changer" for Icelandic house market

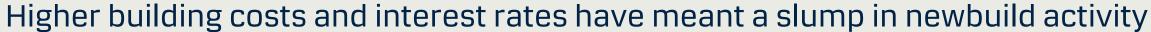
Source: Danske Bank Danske Bank

Households' financial burden has increased

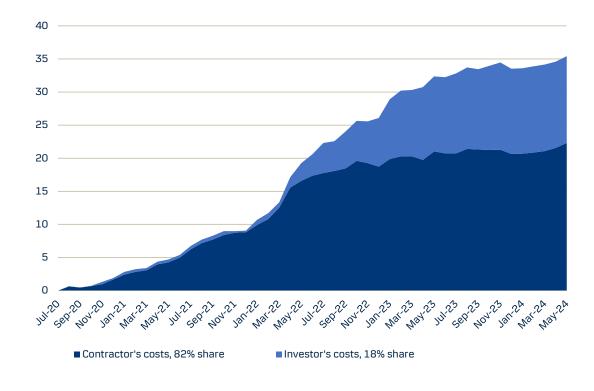
Household debt interest burden in relation to income (%) 2007 - 2025*



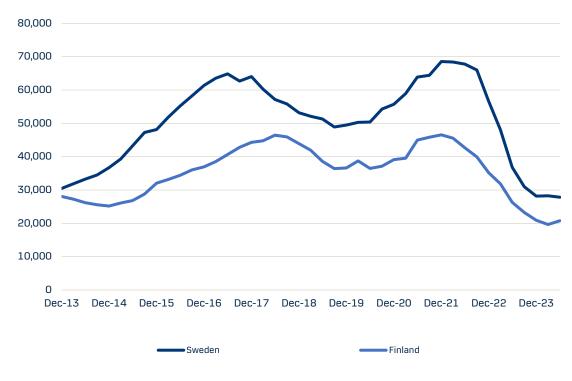




Sweden - Construction cost index, multi-dwellings, %



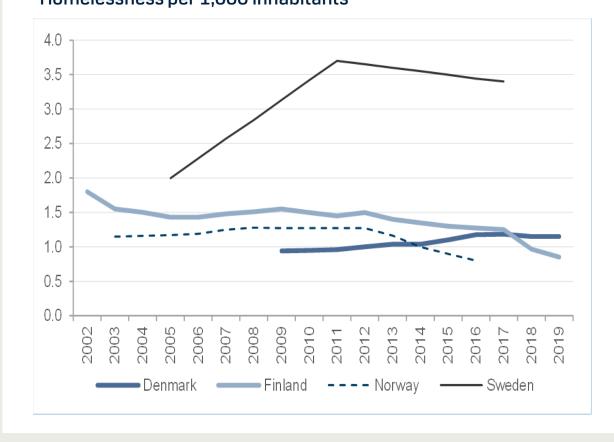
Housing starts in Sweden and Finland



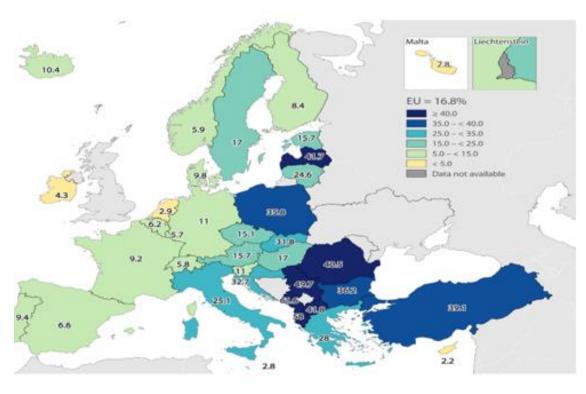
Source: Statistics Sweden, Danske Bank Credit Research Danske Bank

Homelessness and over-crowdedness: Sweden stands out

Homelessness per 1,000 inhabitants



Persons living in an over-crowded household (2022)



Source: National statistical offices of the various Nordic countries

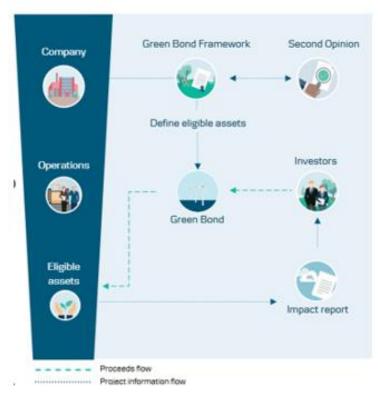
Housing support can be provided in different forms

The most important housing support forms in the Nordic countries

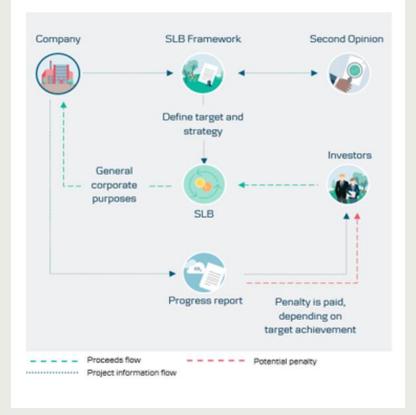
	Denmark	Iceland	Finland	Norway	Sweden
Production support					
State loan	Yes	No	Yes	Yes	No
Interest subsidy	Yes	No	Yes	No	No
Investment grant	Yes	No	Yes	Yes	No
State guarantee of loans for production / renovation	Yes	No	Yes	No	No
Municipal guarantee	Yes	No	No	No	No
Consumption support					
Housing allowance	Yes	Yes	Yes	Yes	Yes
Right to tax deduction for loan interest	Yes	No	No	Yes	Yes
State loan for housing purchase	No	Yes	No	Yes	No
Grant	No	No	No	Yes	No
State guarantee for loans raised to purchase housing	No	Yes	Yes	No	No

Increased interest in green, social and sustainable bonds

Illustrating the mechanics of a green bond



Illustrating the mechanics of an SLB



Swedish real estate companies with frameworks for sustainable financing

- · Atrium Ljungberg
- Heba
- · Heimstaden Bostad
- Hemsö
- · Humlegården Fastigheter
- SBB
- Rikshem
- Titania
- Trianon

Source: Company data, Danske Bank Danske Bank 22

Affordable housing in the Nordics

Key takeaways

- Over the past few years, rising interest rates and higher inflation have resulted in rising entry barriers to the housing market, especially for first time buyers and low-income households. Across the Nordic countries, there is an increasing mismatch between production costs for new housing and what households can afford to demand.
- We take a closer look at the various systems for affordable housing in the Nordic countries. When examining the situation in greater detail, there are large institutional and public policy differences between the different Nordic countries.
- With the increased focus on social issues, the sustainable bond market has developed into new forms. This includes both social bonds and sustainability-linked bonds (SLBs). For real estate companies we see these instruments as interesting complements supporting the focus on social challenges and solutions.



Agenda

- 1. Nordic Sustainable issuance trends 2024
- 2. Affordable Housing in the Nordics
- 3. Nordic banks and ESG risks
- 4. White Paper on EU Deforestation Regulation



Our ESG risk indication vs Sustainalytics scorings

	ESG reporting	Environmental risk	Social risk	Governance risk	Overall ESG risk	Sustainalytics ESG risk scoring
DNB	Good	High	Medium	Medium	Medium	Low (14)
Danske Bank	-	-	-	-	÷	Low (18.9)
Handelsbanken	Good	Medium	Medium	Low	Medium	Low (15.5)
Nordea	Good	Medium	Medium	Medium	Medium	Low (12.3)
SEB	Good	Medium	Medium	Medium	Medium	Medium (22.6)
Swedbank	Good	Medium	Medium	Medium	Medium	Medium (22)

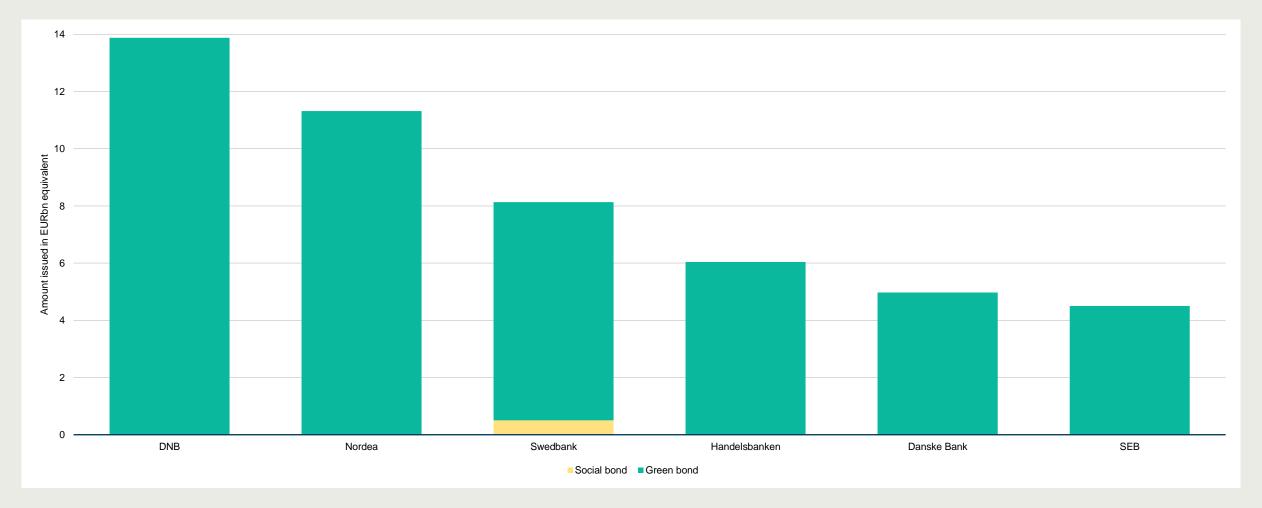
ESG reporting by bank and our view of the reporting

	GHG emissions own operations Scope 1,2,3	Financed GHG emissions lending	Fund management GHG emissions	Long-term net zero target	Taxonomy- alignment**	Our overall judgement
DNB	1, 2, 3	See note below#	20 mtC02e****	Yes but not science based	5.5%	Good
Danske Bank	1, 2, 3	9.6 mtCO2e*	2.2 mtCO2e*	Yes. Applied to SBTi	1.2%	N.R.
Handelsbanken	1, 2, 3	N.A.	N.A.	Yes. Applied to SBTi	2.2%	Good
Nordea	1, 2, 3	16.5 mtCO2e***	8.5 mtC02e***	Yes but not science based	2%	Good
SEB	1, 2, 3	28.4 mtCO2e****	N.A.	Yes but not science based	2%	Good
Swedbank	1, 2, 3	N.A.	2.3 mtC02	Yes. Committed to SBTi	1.4%	Good

Selective 2030 GHG emission reduction targets per bank

	GHG emissions own operations	Fund management emissions intensity	Oil & Gas* absolute financed emissions	Power generation financed emissions intensity	Mortgages financed emissions intensity**	Steel financed emissions intensity
DNB	Net zero 2050	-55% #	-18% £	n.a.	-47%	-30%
Danske Bank	-60%	-50%	-50% £	-50%	-55%	-30%
Handelsbanken	n.a. (net zero 2040)	-50%	n.a.	-72%	-56%	n.a.
Nordea	>-50%	-50%	-55%	-70%	-40-50%	n.a.
SEB	Cap at 17' tons 2025	-75%	-70%	-43%	-30%	-30%
Swedbank	-60%	-50%	-50%	-59%	-39%	-29%

Green bonds from Nordic banks



Source: Bloomberg, Danske Bank Credit Research. Danske Bank 28

Assessment of governance risk based on contributing factors

	Danske Bank	DNB	Handelsbanken	Nordea	SEB	Swedbank
Board structure and independence	-	Medium	Low	Low	High	Low
Executive management experience	-	Medium	High	Low	.Medium	Medium
Executive management remuneration	-	Medium	Low	High	Medium	Low
Ownership structure	-	Low	Low	Low	Low	Low
Risks stemming from past incidents	-	Low	Low	Medium	Medium	Medium
Exposure to high-risk countries	-	Low	Low	Low	Medium	Medium
Credit risk management track record	-	Medium	Low	Medium	Medium	Medium
Capital and distribution policy	-	Medium	Low	Medium	Low	Low
Our overall assessment	-	Medium	Low	Medium	Medium	Medium

Source: Company data, Danske Bank Credit Research Danske Bank Credit Research

Key takeaways

- The financial industry's indirect contribution to environmental externalities is relatively high via lending practices and investment decisions. Establishing a science-based transformation plan could be challenging and have a major impact on current business models, depending on sector exposures.
- For the banks to be successful in their transition efforts, it will be key for their main clients to be successful in their own transitions. These transitions need to be supported by timely public policy decisions. Companies in critical sectors will also need access to capital, energy and material. Positively, the new green value chains should offer new business opportunities.
- Governance failures could have a direct impact on banks' credit profiles. A logical starting point would be to ensure an independent board of directors, clarity and transparency of management remuneration policies and a clearly communicated financial policy.



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Three key requirements of the EU's Regulation on Deforestation Free Products (EUDR)

- 1. Deforestation free;
- 2. Produced in accordance with the relevant legislation of the country of production;
- 3. Covered by a due diligence statement.

The legislation requires 100% traceability and hence geolocation data for commodities.

Commodities in scope in the EUDR

- Palm oil
- Soy
- Wood
- Cocoa
- Coffee
- Cattle
- Rubber

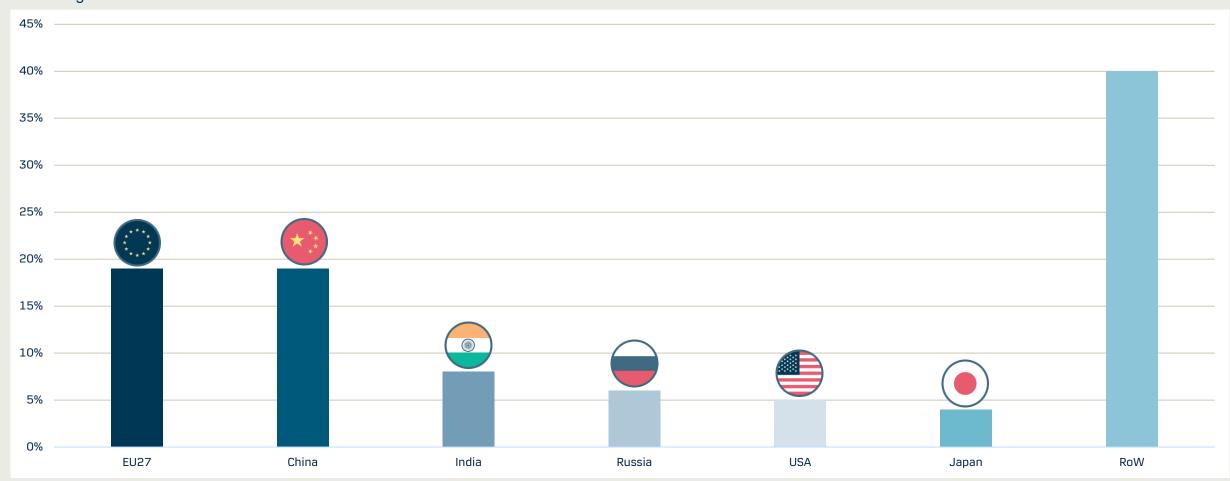
Non-compliance may result in

- Penalties as per local regulation
- Fines up to 4% of company's total annual union-wide turnover
- Confiscation of relevant products
- Temporary prohibition from the EU market

Source: EU Commission Danske Bank

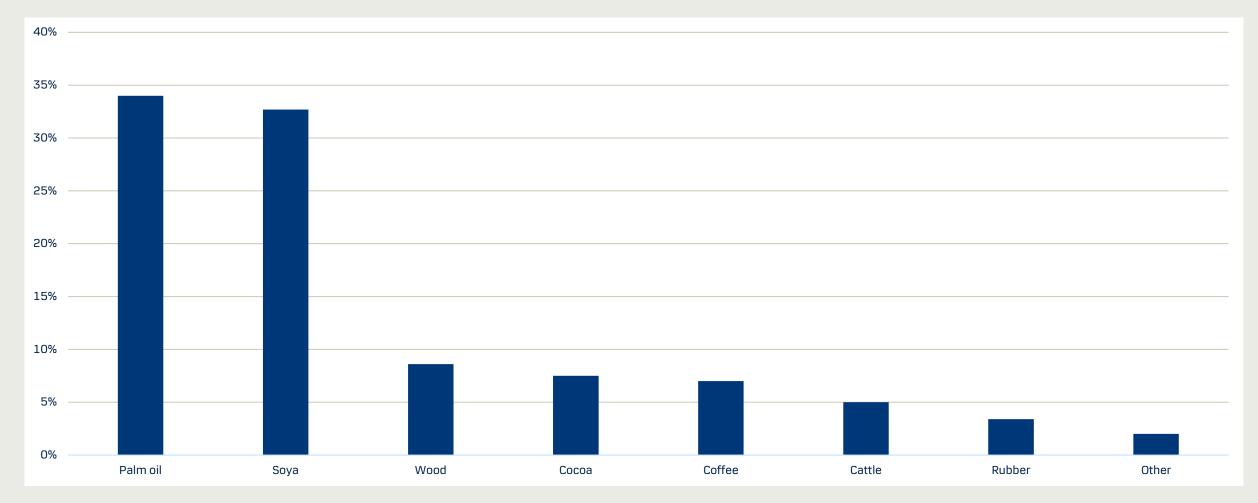
EU consumption is driving global deforestation

Share of global deforestation



Source: Pendrill et al. (2020)

Deforestation-linked commodities sourced by the EU



Source: Pendrill et al. [2020]

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White Paper "Welcome to the Jungle"

- Key takeaways

At least 144 listed Nordic companies face transition risk due to the forthcoming introduction of the EUDR. An analysis of their revenue streams reveals that €132 billion of revenues are potentially within scope of the EUDR.

Some 31% of listed Nordic companies are affected by the forthcoming EUDR conduct deforestation-related reporting through CDP Forest, suggesting that many companies may need to invest or increase their efforts.

Packaged Food & Meats exhibits the highest revenue exposure to EUDR. Less than half of the Nordic Packaged Food & Meats companies report to CDP Forest.



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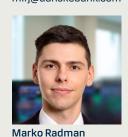


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