

# Nordic sovereigns: strong environmental policies support high credit ratings

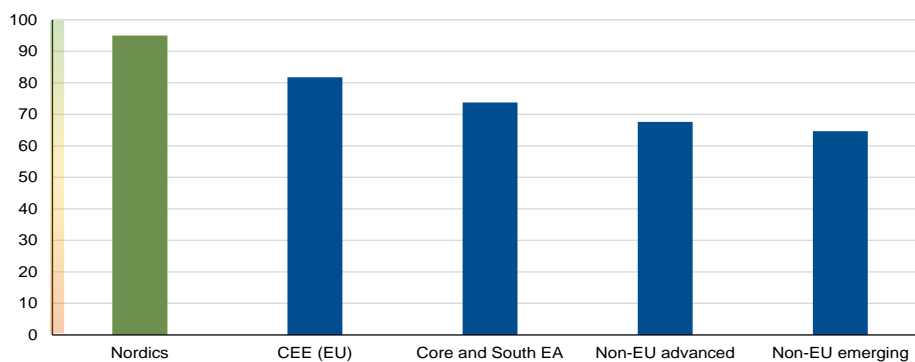


**Denmark, Finland, Norway and Sweden display solid performance on environment-related credit factors, which supports strong sovereign credit ratings. Nevertheless, these economies still face longer-term challenges in achieving climate transition objectives, requiring further ambitious government policy interventions.**

The four Scope-rated Nordic governments – Denmark (AAA/Stable), Finland (AA+/Stable), Norway (AAA/Stable) and Sweden (AAA/Stable) – perform well along dimensions of the environmental, social and governance (ESG) risk pillar under Scope’s sovereign rating methodology. Their governments tend, furthermore, to be among the most proactive in policy initiatives addressing ESG-associated risk.

**Figure 1: Scope E quantitative risk score for Scope-rated\* sovereign issuers**

Points, 1 = worst (high risk); 100 = best (low risk), regional averages



Nordics: DK, FI, NO, SE; Central and eastern Europe (CEE) (EU): BG, CZ, EE, HR, LT, LV, HU, PL, RO, SI, SK; Core and South euro area (EA): AT, BE, CY, FR, DE, GR, IE, IT, LU, MT, NL, PT, ES; Non-EU advanced countries: CH, JP, UK, US; Non-EU emerging economies: GE, RU, TK, CN. \*Scope rates 36 sovereign issuers in total.

Source: Scope Ratings GmbH

Environmental variables are captured under Scope’s rating methodology in both the quantitative model as well as the qualitative analyst assessment. In the first-step quantitative model, environmental sovereign evaluation reflects consideration of:

1. risks related to the transition of economies to lower-carbon economic designs, captured by their starting stages with respect to current economic carbon intensities;
2. physical or natural disaster risk, including those accentuated by climate change, as evaluated via the World Risk Index, and
3. biological resource risks, as assessed by a country’s ecological footprint of consumption relative to its available biocapacity.

On this basis, 132 countries are captured in Scope’s quantitative framework, assessed on the above three environmental variables, each on a 100-point scale, whereby a score of 100 (1) implies low (high) credit risk. On the environmental quantitative dimensions, the Nordic economies perform well. At the same time, achieving climate transition objectives will still require further ambitious government policy interventions – acknowledging that the scale of such action for the Nordics does benefit from comparatively superior starting points.

The region’s strong performance on environment is furthermore reflected in Nordic economies’ top rankings on the [Sustainable Development Report 2020](#), which measures achievement along 17 UN Sustainable Development Goals across 193 UN member States. According to the Report, the four Nordic countries all display above 80% attainment.

Next, green finance is becoming an increasingly relevant theme, with Sweden becoming the first Nordic sovereign to debut in the global sovereign green bond market. Denmark has announced expectations its plans to issue green securities in 2021, under an innovative paradigm based on the addition of a green certificate to a conventional bond, preserving the liquidity of standard securities.

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## Related Research

[Environmental risks: assessing sovereign transition, physical and resource risks – 21 April 2021](#)

[Denmark seeks to advance ambitious climate agenda by pursuing innovative green bond framework – 24 January 2020](#)

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Bloomberg: SCOP

Environmental sustainability rises on the international agenda

Covid-19 accelerated policy impetus in investment in climate-change mitigation and adaptation

The Nordic economies have been at the centre of global climate activism

Sound performance on quantitative metrics of environment risk

## Environmental risks have gained relevance for sovereign risk assessment

Environmental risks have gained considerable relevance for sovereign credit risk analysis. Environmental sustainability has risen to the top of government agendas in Europe as well as once more in the United States under the Joseph Biden administration, shaping dimensions of fiscal reform and driving structural changes of economies.

Environmental policies impact both sides of a sovereign's budget. Revenues are raised directly via environmental taxation policies; expenditures are impacted by public investment allocated to ecological transition as well as spending in response to environmental events. Longer-term impacts on state budgets come indirectly via how structural transformation related to ecological developments might impact economic growth and reduce risk from physical disruptions caused by anthropogenic climate change.

The Covid-19 crisis has given policy agendas fresh impetus to address environmental risk, with countries orienting recovery plans in exiting the coronavirus crisis with a concentration on green investment. As an example, the EU has pledged to allocate 30% of the current multi-annual budget and Recovery Fund to the green transition.

The rapid development of green finance in sovereign bond markets is impacting government funding practices and contributing to enhancing the transparency of environment-related spending in national budgeting.

## The Nordics countries perform well on “E” indicators in the methodology

The four Scope-rated Nordic governments have been at the centre of global climate activism and are signatories of or contributors to international initiatives, such as the 2016 UN Paris Agreement and the 2019 European Green Deal. The latter aims to make Europe the first climate-neutral continent by 2050.

The Nordic countries have, as well, been pioneers in carbon pricing techniques, being among the first to introduce carbon taxation systems in the 1990s, and members of the first trading system for greenhouse gas emissions, namely the European Emissions Trading System (ETS) introduced in 2005 with Norway joining in 2007, which currently covers around 40% of European greenhouse gas emissions. According to World Bank data, the Nordic region displays among the highest carbon taxes globally as of end-2020.

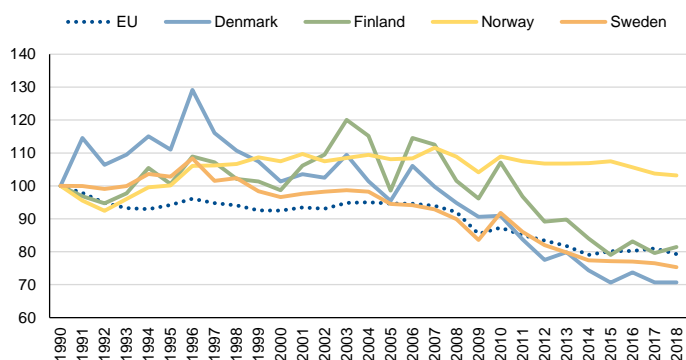
Scope – as the European credit rating agency – became the first major rating agency in Europe to integrate ESG as an independent sovereign ratings assessment pillar in 2020, with a significant 20% weighting in the overall sovereign rating assessment.

With regard to the newly introduced environmental factors under Scope's sovereign risk model, the Nordic sovereigns perform soundly on quantitative metrics within a model universe of 132 nations, of which we publicly rate 36 (**Figure 1, cover page**). Scope's quantitative model assesses environmental risks along three prime dimensions: i) risks related to the transition to lower-carbon economic structures; ii) natural disaster risk; and iii) risks related to a nation's available biological resources.

Here, firstly, with respect to the costs and associated risks in transition to lower-carbon national paradigms, the Nordic economies perform well on their starting points: current CO<sub>2</sub> emissions per unit of GDP (in the case of Norway to a somewhat lesser extent), exhibiting lesser carbon intensity than economies of other regions. Higher reliance on renewable energy sources is one factor: in the Nordic region, the share of energy sourced from renewables is at least twice an EU average (**Figure 3**).

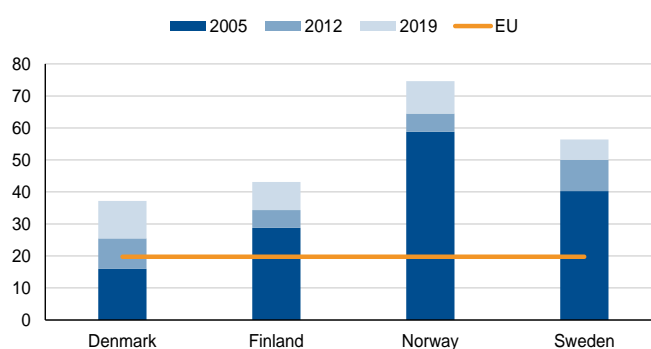
In Norway, rebalancing the economy away from a model dependent on the oil and gas sector remains, meanwhile, an important target. Strengthening growth in non-oil sectors remains a challenge, however, due to low productivity growth, high labour costs (resulting in diminished competitiveness), and falling labour force participation rates from an ageing population. The government recognises the gravity of the challenge and has considered the petroleum sector's declining contribution to economic growth in coming decades in decision-making related to active transitions in the economy. Its projections are that oil and gas production will decrease to about 25% of 2015 production by 2060.

**Figure 2. Greenhouse gas emissions**  
Index: 1990=100



Source: Eurostat, Scope Ratings GmbH

**Figure 3. Share of renewable energy in gross final energy consumption, %**

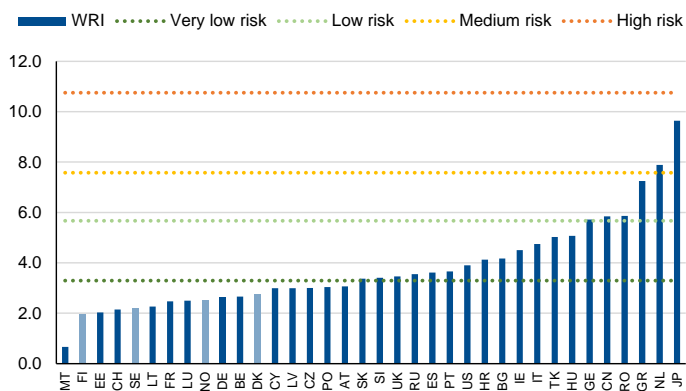


Source: Eurostat, Scope Ratings GmbH

On the second Scope “E” variable in the Scope sovereign quantitative model – natural disaster risk – Nordic countries are comparatively less exposed on the basis of [World Risk Index \(WRI\)](#) indicators (**Figure 4, next page**), as well as being comparatively less vulnerable in event of extreme natural events. Extreme weather events can stress economic conditions and increase fiscal duress – so Nordic sovereigns’ lesser risk from natural hazards is credit positive for the ratings.

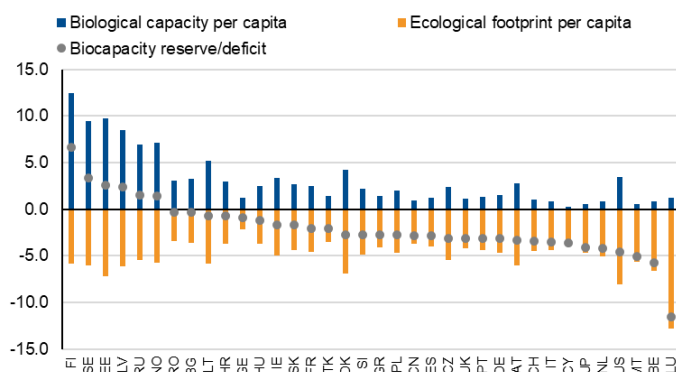
On the last environmental quantitative factor under the Scope sovereign model, Nordic economies are rich in resources with significant biological reserves – meaning that national ecological footprints, in terms of the consumption of biologically-productive areas, are smaller than what resources their ecosystems are actively able to renew (**Figure 5, next page**). Performance on this indicator is especially strong for Finland, Sweden and Norway.

**Figure 4. World Risk Index 2020**



Source: World Risk Index, Scope Ratings GmbH

**Figure 5. Biological reserve (+)/ deficit (-)**  
Global hectares per person, 2017



Source: Global Footprint Network, Scope Ratings GmbH

### Comparatively favourable positions in green economic transitions

### The Nordic region at the centre of global emissions reduction ambition

The Nordic region stands out **on aggregate** with comparatively favourable positions in respect to longer-term transition to lower carbon economic models. They are, moreover, at the centre of international ambition on emissions reduction objectives. Nevertheless, achieving such reductions targets is complex and will require ambitious reform above and beyond status-quo policies, as national “climate watchdogs” and think tanks have warned.

A low-carbon society requires transition of energy supplies towards carbon neutrality and integration of renewable sources of energy, decarbonisation of industry and transport, alongside the greening of structures and housing. These areas – besides requiring substantive investment – entail structural changes in economies with sometimes a trade-off between retention of economic competitiveness versus seeking bolder emissions curtailment. At the same time, environmentally friendly structural change can frequently bolster competitive advantages and develop technological opportunities in the modernisation of industry for an economy of tomorrow.

Table 1. Emission reduction targets	
Denmark	Reducing emissions by 70% compared with 1990 levels by 2030, carbon-neutral by 2050
Finland	To become carbon-neutral by 2035 and carbon-negative thereafter
Norway	To become a low-emission society by reducing emissions by 80-95% by 2050 from 1990 levels, including by 50-55% by 2030
Sweden	Zero net greenhouse gas emissions by 2045 and, thereafter, negative emissions

Source: Official government documents

### Denmark: ambitious emissions reduction plans but additional action needed

### Achieving climate transition targets will require further ambitious government policy interventions

According to the Danish Council on Climate Change, the total emissions reduction gap of Denmark is 20m tonnes, with the government having secured agreement on a political basis for reductions of 7.2m tonnes CO<sub>2</sub>-equivalent by 2030. This results roughly in a curtailment of 54% of emissions from 1990 levels, falling albeit somewhat short of the 70% under the Danish Climate Act, which includes legally binding targets for current and future governments.

Denmark has, as well, committed to 100% renewable energy supplies by 2050. The government recently approved a plan to build an artificial island in the North Sea that will become a hub for hundreds of offshore wind turbines and that could generate 10GW of

### Finland has the most ambitious targets although significant action required

energy, enough to power 10m households. A first stage that is planned to generate 3GW, at a cost of EUR 29bn, is expected to be operationalised by 2033.

Finland has the most ambitious targets with regard to planned emissions cuts, with a target of carbon-neutrality by 2035. According to the Finnish Climate Change Panel, there is still a significant gap, however, between Finland's actions, which account for around 16Mt in emission reductions, and the 35Mt needed to reach targets. A revised Climate Change Act is expected this year, including steps to close existing gaps.

### Norway's historic reliance on oil and gas reflected in comparatively less ambitious targets versus Nordic peers

Norway's historical dependence on its offshore petroleum sector is reflected in comparatively less ambitious emissions reduction targets, at least vis-à-vis Nordic peers. Greenhouse gas emissions due to oil and gas extraction accounted for 28% of total emissions in 2019, according to Statistics Norway, and have increased by 70% since 1990. This is in part compensated for by the very low emissions in Norway's electricity provision, which is sourced three-quarters from renewable sources. Norway recently presented a climate action plan for 2021-30 that raises ambitions compared with commitments under the Paris Agreement; the latter targeting a 40% reduction in emissions not included under the Emissions Trading System (ETS), or non-ETS emissions, compared with 1990 levels. The action plan aims to achieve instead 45% reductions.

### Swedish policies are so far inadequate to achieve 2045 net-zero emissions targets

Sweden comfortably achieved 2020 targets under the EU's greenhouse gas effort sharing system, and decided to eliminate, rather than sell on to other countries, surplus emissions. Based on such decisions, the government has curtailed aggregate emissions since 2014 by approximately 130m tonnes. Nevertheless, the Swedish Climate Policy Council warns that existing policies remain insufficient to achieve 2045 net-zero emissions objectives, as well as interim targets after 2020. Further ambition in carbon-neutrality-associated policy reform, while exacting in the short term, would bolster the competitiveness of the Swedish economy longer term.

### Sweden has made its debut in sovereign green bond markets, with Denmark up next

In respect to the growingly important area of green finance, Sweden is the only Nordic country thus far to have made its debut in the sovereign green bond market, with a SEK 20bn issue in September 2020. Denmark has announced an expectation of its debut sovereign green bond this year, under an innovative model based on the addition of a green certificate to a conventional bond, to preserve liquidity in standard securities while at the same time appealing to fresh green investors.

Other initiatives in green finance include those of Norway's sovereign wealth fund, the Government Pension Fund Global, which began investment directly in renewable energies this spring as a step towards investing in longer-term global fossil-fuel independence.



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