Sustainable development and Finland

ESG for Fixed Income - Investor Workshop

Washington, April 10, 2019
Credit Ratings

The government has credit ratings from three credit rating agencies: S&P Global Ratings, Moody’s Investors Service and Fitch Ratings. For long-term debt, they are AA+, Aa1 and AA+ (stable, stable, positive)
Economic outlook stable

- Growth continues although at lower rates
- Housing construction return to normal main reason for slower investment growth
- Declining unemployment rate, employment rate 72.7% in 2019
- Improving public finances, debt ratio below 60% of GDP

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP change %</td>
<td>2.3</td>
<td>1.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Inflation, %</td>
<td>1.1</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Current account, %/GDP</td>
<td>-1.9</td>
<td>-1.4</td>
<td>-1.4</td>
</tr>
<tr>
<td>Private investment change, %</td>
<td>3.3</td>
<td>0.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Exports change %</td>
<td>1.5</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Unemployment rate, %</td>
<td>7.4</td>
<td>6.3</td>
<td>6.1</td>
</tr>
<tr>
<td>Public deficit, %/GDP</td>
<td>-0.6</td>
<td>-0.3</td>
<td>-0.0</td>
</tr>
<tr>
<td>Public debt, %/GDP</td>
<td>58.9</td>
<td>58.1</td>
<td>57.4</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance 4/2019
Exports of goods well diversified

Exports by countries of destination 2018

- Germany: 15%
- USA: 7%
- Rest of the World: 7%
- Rest of Europe: 8%
- Asia (exc. China): 9%
- Sweden: 10%
- Russia: 5%
- China: 6%
- Nordics (exc. Sweden): 5%
- Baltics: 5%
- Euro area (exc. Germany, Baltics): 19%
- UK: 4%
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Exports by industries 2018

- Manufacture of machinery and equipment: 13%
- Manufacture of transport equipment: 7%
- Forest industry: 21%
- Chemical industry: 13%
- Manufacture of metal and metal products: 12%
- Other industries: 11%
- Wholesale and retail trade: 14%
- Electric and electronics industry: 9%
- Other industries: 11%

Source: National Board of Customs 2/2019
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Funding
Central government gross borrowing estimate and projected funding instrument allocation

**Sources:** State Treasury, Ministry of Finance (*forecasts*)
### Public sector funding entities in Finland

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Government Control</th>
<th>Total Funding Programme -19</th>
<th>Sustainable Funding</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordic Investment Bank</td>
<td>International Project Financing Institution of the Nordic and Baltic Countries</td>
<td>Ministry of Finance, 17.7% Owned by Finnish State</td>
<td>EUR 5.5-6.5BN</td>
<td>19 Environmental Bonds, EUR 3.5BN Total, 56 Projects</td>
</tr>
<tr>
<td>Municipality Finance</td>
<td>Credit Institution Specialised in Financing Local Government Sector and State-Subsidised Social Housing Production</td>
<td>Ministry of Environment, 16% Owned by State</td>
<td>EUR 7.1BN</td>
<td>2 Green Bonds, EUR 1 BN Total, Aims to Issue One BMK Sized Green Bond Per Year in EUR or USD</td>
</tr>
</tbody>
</table>
Sustainable development
Government sustainability efforts and climate strategy

• UN agenda 2030 implementation on national level:
  • *Carbon-neutral and resource-wise Finland*
  • *Non-discriminating, equal and highly skilled Finland*

• Ban of coal-fired power and heating by 2029

• Sustainable development is included in the government budget starting in 2019

• Budget appropriations totalling approximately EUR 1.7 billion in the 2019 budget.
  • Largest single item allocation to creation of bioeconomy and cleantech solutions
  • Climate strategy measures include production subsidies for renewable energy to achieve **carbon neutrality by 2045**

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Source: Ministry of Finance Budget Review, January 2019

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**Share of renewables of total energy usage in 2017 was the second highest among EU countries**

- Renewable energy 37%
- Nuclear energy 17%
- Fossil fuels 36%
- Peat 4%
- Others 6%

Source: Statistics Finland
Finland plans to be carbon neutral by 2045

Forests sequester 30% of annual emissions

LULUCF in 2017 was 20 000 thousand tonnes of CO2 equivalent
Government sustainability efforts and climate strategy

• Tax measures include energy taxes, motor vehicle tax, car tax, excise duty on certain beverage packaging and waste tax.
• Tax reduction for low-emission cars in 2019
• Environmentally harmful subsidies are identified in the budget

Source: Ministry of Finance Budget Review, January 2019

Source: Statistics Finland
The Sustainable Development Goals (SDG) Index by UN

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sweden</td>
<td>85.0</td>
</tr>
<tr>
<td>2</td>
<td>Denmark</td>
<td>84.6</td>
</tr>
<tr>
<td>3</td>
<td>Finland</td>
<td>83.0</td>
</tr>
<tr>
<td>4</td>
<td>Germany</td>
<td>82.3</td>
</tr>
<tr>
<td>5</td>
<td>France</td>
<td>81.2</td>
</tr>
<tr>
<td>6</td>
<td>Norway</td>
<td>81.2</td>
</tr>
<tr>
<td>7</td>
<td>Switzerland</td>
<td>80.1</td>
</tr>
<tr>
<td>8</td>
<td>Slovenia</td>
<td>80.0</td>
</tr>
<tr>
<td>9</td>
<td>Austria</td>
<td>80.0</td>
</tr>
<tr>
<td>10</td>
<td>Iceland</td>
<td>79.7</td>
</tr>
</tbody>
</table>

Source: The 2018 global SDG index ranking and scores

Source: Statistics Finland

Source: The 2018 global SDG index ranking and scores
Our ESG approach

UN Sustainable Development Goals
UN SDG Index and Dashboard

Sustainable Development Themes in Finland
Evaluation report on Finland’s sustainable development policy and transformation pathways

Fitch Rating
Credit-Relevance
ESG Derivation

Credit Ratings

Environmental
Energy System 3
Forest Resources 3
Water Ecosystem 3

Social
Skills 3
Social Equality 4
and Inclusiveness

Governance
Stable Institutions 5

ESG Relevance by Fitch Rating
1 — 5
Low  High

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STABLE INSTITUTIONS
Finland is the most stable country in the world.

• Finland is the freest country in the world together with Sweden and Norway. *Freedom House, Freedom in the World 2018*

• Finland has the third least corruption in the world. *Transparency International, Corruption Perceptions Index 2017*

• Finland’s judicial system is the most independent in the world. *World Economic Forum, The Global Competitiveness Report 2018: Judicial independence*

• Finland has the least organised crime in the world. *World Economic Forum, The Global Competitiveness Report 2018: Organized crime*

• Finland has never defaulted its central government debt.
SKILLS
Finland stands out among EU nations in education results

• Since Finland became an independent state, the level of education of its population has been constantly growing.

• The neutralization of the impact of family wealth and the educational level of the parents on their children have been the hallmark of the Finnish basic education system since the 1970s.

• Quality differences between schools are minimal and regional variance is small.

• Finland has remained among top European countries in PISA reports, but has the widest learning gap between boys and girls.

Source: WEF, The Global Competitiveness Report 2018
SOCIAL EQUALITY AND INCLUSIVITY
Social inequality has risen although Finland fares well in international studies

• Finland has the fifth lowest income differences in OECD countries. *OECD, Income inequality*

• The growth in the number of persons living on social assistance can be considered a worrying sign.

• Around 10% of young Finns (15 to 24 years) are outside the labour market and education.

• Inequality is also linked to the vulnerable position of refugees.

• **Actions:** Youth Guarantee, Towards Equal Pay – programme, Meaningful in Finland - programme

![Social assistance recipients as a proportion of the population 1990-2017](image)
ENERGY SYSTEM

Renewable energy accounts for 37 per cent of final energy consumption

• Finland’s objective is a carbon-neutral society by implementing the national roadmap towards a carbon-neutral society by the year 2050 and the Paris Climate Convention.

• Key measures to reach the objective is to improve energy efficiency, increase the share of renewable energy sources sustainably, produce and export climate-friendly products and services, and develop the low-carbon sectors of the economy.

• Actions: National Energy and Climate Strategy 2030
Consumption of renewable energy sources

According to an estimate by the National Energy and Climate Strategy 2030, renewable energy will contribute to 50 per cent of the final energy consumption in 2030 if new policy measures according to the strategy are introduced.
FOREST RESOURCES
Forests provide Finland’s most significant carbon sink

- The use of wood remains below the annual growth of timber in Finland's forests.
- The increase in the growth of standing timber can be explained by improved forest management, the age category structure of forests and global warming.
- Fine balance between different dimensions - use of wood materials and bioenergy, preservation of carbon sink and biodiversity.
- **Actions:** National Forest Strategy 2025, Forest Biodiversity Programme for Southern Finland (METSO) - programme
WATER ECOSYSTEM

The biggest challenges to water protection lie in the management of diffuse pollution

• The ecological status of most of the surface areas of lakes (85%) and rivers (65%) is excellent or good. By contrast, only 25% of coastal waters have been rated excellent or good.

• The Baltic Sea continues to suffer from eutrophication, which is also sustained by nutrients accumulated on the seabed over the past centuries.

• The state of the Archipelago Sea and the Gulf of Finland is particularly worrying.

• A better status of water bodies requires further measures such as emission abatement and the remediation of water bodies.

• **Actions:** Finnish Marine Strategy
Monitoring and reporting – useful links

PRIME MINISTER’S OFFICE: SUSTAINABLE DEVELOPMENT PAGES

MINISTRY OF FINANCE: SUSTAINABLE DEVELOPMENT BUDGETING

MINISTRY OF ECONOMIC AFFAIR AND EMPLOYMENT: ENERGY POLICY

STATE TREASURY: CENTRAL GOVERNMENT DEBT MANAGEMENT

STATE TREASURY: ANNUAL DEBT REVIEW 2018

STATISTICS FINLAND: SUSTAINABLE DEVELOPMENT STATISTICS

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