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INVESTORS SERVICE

ASSESSMENT
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Poland, Government of

Update to the Green Bond Assessment

GB1	GB2	GB3	GB4	GB5
Excellent	Very Good	Good	Fair	Poor

We are maintaining the GB2 (Very Good) Green Bond Assessments (GBA) on the €1 billion of senior unsecured fixed-rate notes and €750 million of senior unsecured fixed-rate notes issued by the Government of Poland (A2 stable) in February 2018 and December 2016, respectively.

Following our review of the issuer's ongoing disclosure and proceeds management practices, we are maintaining an overall weighted score at 2.00 on both transactions. We are not changing any factor scores at this time, given that all aspects of the transaction remain consistent with our initial expectations. This report highlights findings from our review of publicly available reports and discussions with management.

The GB2 score continues to reflect use of proceeds that align with the Green Bond Principles (GBP), coupled with limitations in ongoing reporting. The weighted factor score is outlined below and our full analysis of the transaction can be viewed in the original in-depth reports for the 2018 and 2016 transactions.

Factor	Factor Weights	Score	Weighted Score
Organization	15%	2	0.30
Use of Proceeds	40%	1	0.40
Disclosure on the Use of Proceeds	10%	2	0.20
Management of Proceeds	15%	2	0.30
Ongoing Reporting and Disclosure	20%	4	0.80
Weighted Score			2.00

The transaction-weighted score, using the Green Bond Scorecard, is 2.00, which corresponds to a GB2 grade. For a full summary of the transaction's scoring under the GBA scorecard, please see "Methodology scorecard" below.

Profile

As stated in our most recent credit opinion, Poland's (A2 stable) large, resilient and competitive economy is its key credit strength. Credit challenges include the relatively sizeable structural fiscal deficit, persistent social divides, and gradually eroding institutional strength.

As a member of the EU, Poland is a signatory to the Paris Agreement on climate change. As such, the country is committed to the EU's nationally determined contribution (NDC) that sets out a collective binding target of at least a 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990 levels[1]

The Government of Poland raised a total of €750 million in its inaugural green bond issuance in December 2016 and a total of €1 billion in its second green bond issuance in February 2018. Both bonds are listed on the Luxembourg Stock Exchange, with the proceeds used for spending on budget allocation, subsidies and projects for new or existing eligible green projects. Under Poland's Green Bond Framework, eligible projects are defined as budgetary funding that promotes Poland's transition to a low-emission economy and climate resilient growth, including both climate mitigation and adaptation. The six eligible sectors are renewable energy, clean transportation, sustainable agricultural operations, afforestation, national parks and reclamation of heaps.

Recent Developments

Consistent with our initial expectations, the issuer published post-issuance green bond reports on the use of proceeds for both 2016 and 2018 green bonds, on a publicly accessible website. Since proceeds from both issuances have now been fully allocated, no further reports are expected. Lack of continuing reporting over life of the bonds constitutes a weakness under our GBA methodology.

The disclosure on the allocation of proceeds was reasonably robust, including a distribution of proceeds by eligible sector and annual budgetary allocation. Proceeds from the 2016 bond, using definitions outlined in the GBP, saw 21% of total net proceeds allocated to renewable energy expenditure, 32% to clean transportation projects, and 47% to a variety of subsidies related to sustainable management of living natural resources. Proceeds from the 2018 bond were allocated mostly to clean transportation (77%), followed by sustainable management of living natural resources and land use (16%, encompassing sustainable agriculture, reclamation of heaps, national parks and afforestation), and renewable energy (7%).

The reports also included a selection of quantitative and qualitative environmental indicators related to the green bond. Metrics provided in the annual report for the 2016 bond included total megawatt capacity of clean energy produced, location and miles of railway track, the number and area of farms supported, and the area of forest planted and preserved (see our June 2018 report for details). The annual report for 2018 bond provided comparable metrics. Most of 2018 green bond proceeds targeted improvements to rail infrastructure, with the report providing examples of specific projects completed and including metrics such as length of railway lines and number of railroad platforms constructed. See Exhibit 1 below for sample metrics provided in the annual reports for the 2016 and 2018 green bonds.

The issuer also provided a calculation of carbon emission savings attributable to renewable projects financed by the green bonds (see Exhibit 2 below). The calculation assumes that production of energy from renewable sources does not create any additional emissions of CO2, and is based on a hypothetical amount of CO2 emissions that would have been produced if a given amount of energy was generated from other sources.

However, the large majority of performance metrics cited in both reports reflect aggregate government expenditure for eligible project categories, rather than for projects financed by the green bond proceeds in isolation. A lack of granular information on environmental results – while indicative of the challenges of providing impact reporting on intangible expenditures – constitutes a weakness in the disclosure.

Exhibit 1
Examples of impact metrics reported
2016 and 2018 green bonds

Project category	Performance Indicator	Unit
Renewable Energy	Amount of excise duty refund	EUR mn
	Electricity with return	MWh
	Production of electricity from renewable energy sources	GWh
	Power capacity in renewable energy installations	MW
Clean Transportation	Railway lines created	km
Sustainable agricultural operations	Sustainable farming	hectares
	Organic farming	# of farms
	Protection of endangered species	hectares
	Protection of soil and water	# of animals
Afforestation	Afforestation of agricultural & non-agricultural land	hectares
	Subsidies commissioned to state forests	EUR mn
National parks	Grants awarded to national parks	EUR mn
Reclamation of heaps	Cleaning drainage ditch and drain discharging	metres

Source: Annual green bond allocation reports, Government of Poland

Exhibit 2
Emission savings achieved by projects funded using Green Bonds
(issued in December 2016 and February 2018)

Year (issuance)	Estimated amount of CO2 avoided [kt]
2014 (December 2016)	9,446
2015 (December 2016)	3,866
2016 (December 2016)	8,560
Q1 2017 (December 2016)	6,082
Q2-Q4 2017 (February 2018)	10,098
Q1-Q2 2018 (February 2018)	2,029

Source: Annual green bond allocation reports, Government of Poland

Methodology Scorecard

Factor 1: Organization (15%)	Yes	No
Environmental governance and organization structure appear to be effective	●	
Policies and procedures enable rigorous review and decision making process	●	
Qualified and experienced personnel and/or reliance on qualified third parties	●	
Explicit and comprehensive criteria for investment selection, including measurable impact results		●
External evaluations for decision making in line with project characteristics	●	
Factor Score	2	
Factor 2: Use of Proceeds (40%)	**Yes**	**No**
>95% - 100% of proceeds allocated to eligible project categories that are determined based on the issuer's adopted policies and the categories established under the Green Bond Principles that will be further informed by one or more robust and widely recognized green bond frameworks or taxonomies that qualify eligible projects, including any applicable regulatory guidelines.	●	
Factor Score	1	
Factor 3: Disclosure on the Use of Proceeds (10%)	**Yes**	**No**
Description of green projects, including portfolio level descriptions, actual or intended	●	
Adequacy of funding and/or strategies to complete projects	●	
Quantitative and/or qualitative descriptions for targeted environmental results	●	
Methods and criteria, both quantitative and qualitative, for calculating performance against targeted environmental results		●
Issuer relies on external assurances: Second Party reviews, audits and/or third party certfications	●	
Factor Score	2	
Factor 4: Management of Proceeds (15%)	**Yes**	**No**
Bond proceeds are segregated and separately tracked on an accounting basis or via a method by which proceeds are earmarked	●	
Application of proceeds is tracked by environmental category and project type	●	
Robust process for reconciling planned investments against actual allocations	●	
Clear eligibility rules for investment of cash balances	●	
Audit by external organization or independent internal audit unit		●
Factor Score	2	
Factor 5: Ongoing Reporting and Disclosure (20%)	**Yes**	**No**
Reporting and disclosure post issuance provides/to be provided detailed and timely status updates on projects	●	
Ongoing annual reporting is expected over the life of the bond		●
Disclosures provide granular detail on the nature of the investments and their expected environmental impacts		●
Reporting provides/to be provided a quantiative and/or qualitative assessment of the environmental impacts actually realized to-date	●	
Reporting includes/to include quantitative and/or qualitative explanation of how the realized environmental impacts compare to projections at the time the bonds were sold		●
Factor Score	4	
Overall Weighted Score	2.00	

Moody's related publications

Methodology:

» Green Bonds Assessment (GBA), 30 March 2016

Issuer research:

» Government of Poland – A2 stable: Annual credit analysis, 26 April 2019

» Poland, Government of Green Bond Assessment – December 2016 issuance, 1 June 2018

» Poland, Government of Green Bond Assessment – February 2018 issuance, 1 June 2018

Green bonds research:

» Cross-sector – Green Bonds: Global annual issuance to surpass $200 billion in 2019 after record second quarter, 8 August 2019

» Cross-Sector – Green Bonds: Corporate issuers drive strong global green bond volume in Q1 2019, 9 May 2019

» ESG Focus: April 2019, 9 April 2019

» Green Bonds - Global: Global green bond issuance to hit $200 billion in 2019, 31 January 2019

» Green Bonds – Global: Environmental impact and reporting vary by jurisdiction and asset class, 4 December 2018

» Structured finance – Global: Green finance sprouts across structured finance sectors, 13 November 2018

» Green bonds – Global: Repeat issuers drive volume as green bond market matures, 12 November 2018

» Green Bonds – Global: Adoption of UN Sustainable Development Goals to drive demand, 12 November 2018

» Green Bonds – Sovereign: Sovereign green bond market on course for critical mass, but challenges remain, 9 July 2018

» Green Bonds – Global: Global municipal green bond issuance will continue to rise, 19 March 2018

» Cross-sector – Global: FAQ: The green bond market and Moody's Green Bonds Assessment, 29 November 2017

» Green Bond Assessments – Global: Issuers exhibit strong organizational frameworks but differ on disclosure, 19 September 2017

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

1 See **Intended Nationally Determined Contribution of the EU and its Member States, United Nations Convention on Climate Change** (UNFCCC), March 2015.

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