Climate Resilience Bonds: EBRD's experience

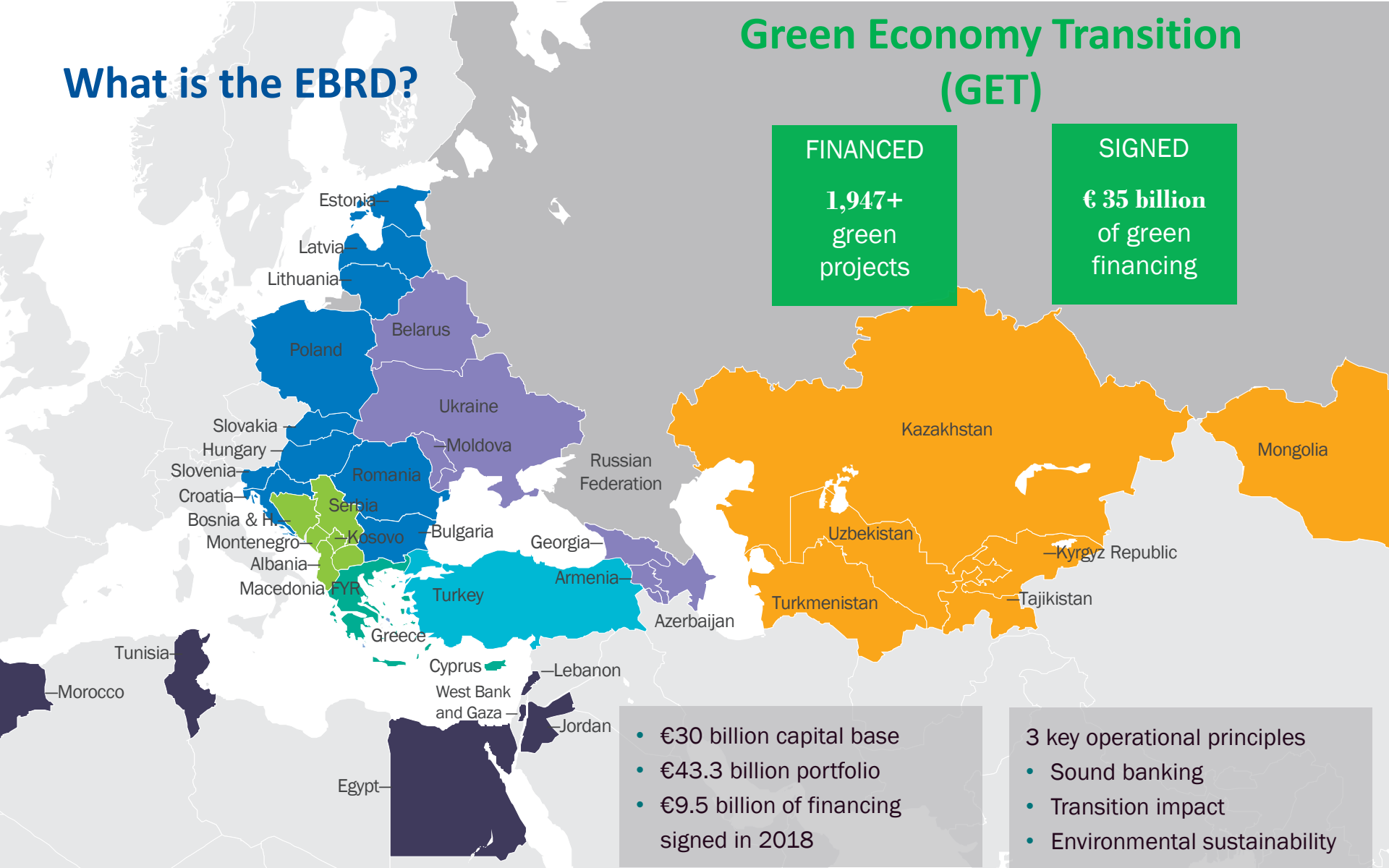
IDB webinar: *Building Resilience through Green Bonds*
23 April 2020

European Bank
for Reconstruction and Development

What is the EBRD?

Green Economy Transition (GET)

FINANCED	SIGNED
1,947+ green projects	**€ 35 billion** of green financing



- €30 billion capital base
- €43.3 billion portfolio
- €9.5 billion of financing signed in 2018

3 key operational principles
- Sound banking
- Transition impact
- Environmental sustainability

- Multilateral financing institution established in 1991 to support transition to market economies
- Owned by 67 countries, the EU and the EIB

EBRD's GET climate resilience operations

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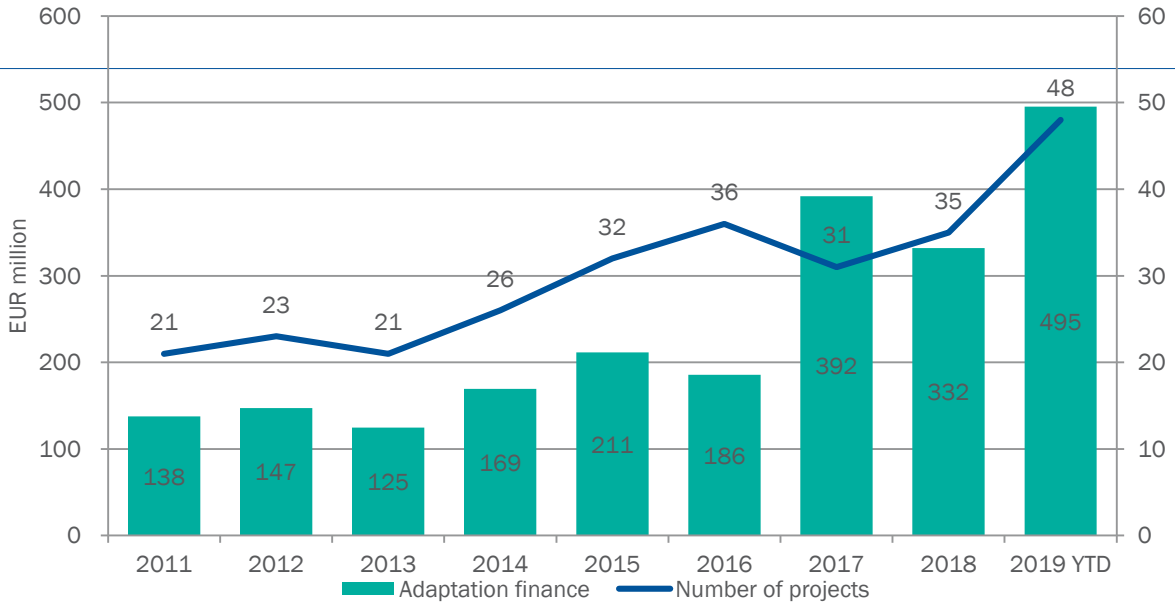
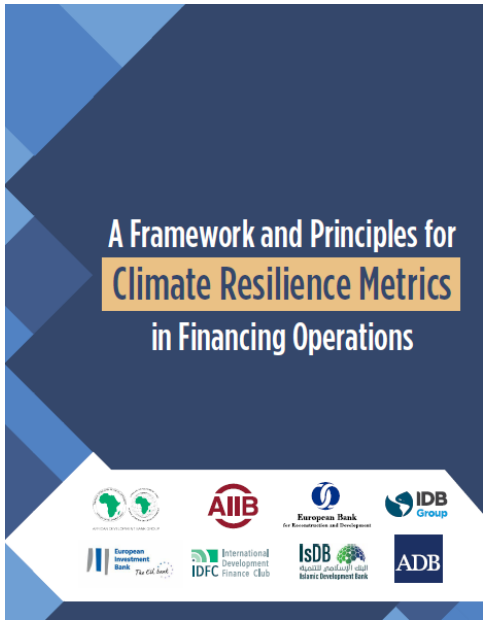


273 projects signed

€8.1 billion total business volume

€2.2 billion GET adaptation finance

By region (€ in million)



CBI Climate Resilience Principles

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Understanding the context

1. Clearly defining boundaries & interdependencies

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Addressing climate risks

2. Climate risk assessment
3. Climate risk reduction

Addressing resilience benefits

4. Resilience benefits assessment
5. Climate mitigation trade-off

&

Monitoring

6. Ongoing monitoring & evaluation

Climate Bonds INITIATIVE

Green Bonds at EBRD

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- Since 2010, EBRD has issued Environmental Sustainability Bonds ("ESB")
  - ✓ Issued against a Green Project Portfolio ("GPP") of "dark green" assets;
  - ✓ The GPP can potentially cover all project categories under the Green Bond Principles ("GBP").
  - ✓ Since 2010, EBRD has issued 83 ESBs totalling EUR 3.9 billion equivalent (30 June 2019)

- In 2019, EBRD introduced Climate Resilience Bonds ("CRB")
  - ✓ Underpinned by a Climate Resilience Portfolio ("CRP") of assets that are consistent with the CBI's Climate Resilience Principles;
  - ✓ Investments in the CRP focus on the GBP category of "climate change adaptation".

- In 2019, EBRD instigated Green Transition Bonds ("GTB")
  - ✓ Financing a Green Transition Portfolio ("GTP") that focuses on key sectors of the economy, which are currently highly dependant on the use of fossil fuels, to enable their transition to low carbon and resource-efficient operations;
  - ✓ Projects in the GTP concentrate on manufacturing, food production and the construction and renovation of buildings, with an emphasis on four GBP categories.

All EBRD's Green Bond (ESB, CRB and GTB) issuance is aligned with the Green Bond Principles

EBRD framework for Climate Resilience Bonds

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- EBRD's CRBs provide an opportunity to finance projects that seek to build climate resilience by mitigating physical climate change vulnerabilities and risks identified in public and private sector projects in EBRD's countries of operations.
- The proceeds of CRBs are specifically earmarked to support the Climate Resilience Portfolio ("CRP"), comprising investments in:
  - ✓ Climate Resilient Infrastructure - Including projects focusing on critical infrastructure systems e.g. energy, water, transport, communications and the built environment including hospitals etc.;
  - ✓ Climate Resilient Business & Commercial Operations - Including projects focusing on e.g. agri-processing, manufacturing/services, logistics/retail, extractive industries; and
  - ✓ Climate Resilient Agriculture & Ecological Systems - Including projects focusing on primary agricultural production.
- The CRP criteria are established in alignment with the Climate Resilience Principles (link) published on 17 September 2019, and are periodically reviewed by the EBRD's Environment and Sustainability Department.
- Further details set out in EBRD's **Framework for Climate Resilience Bonds** (link)

EBRD Climate Resilience Portfolio (I)

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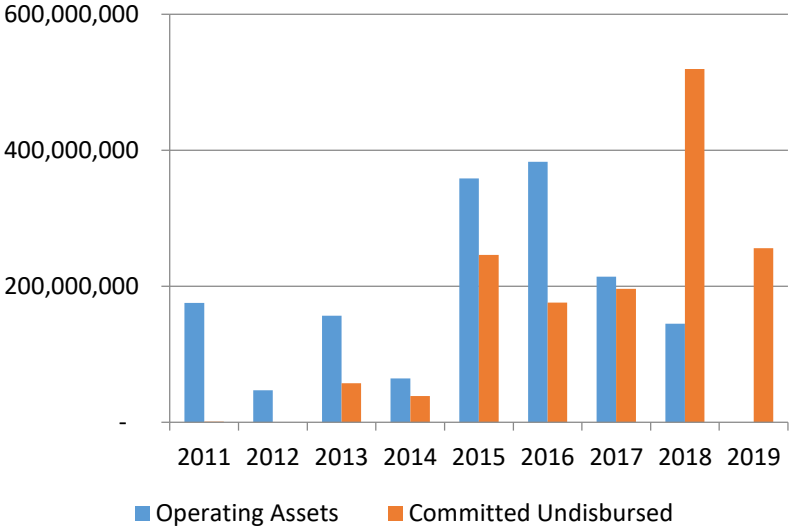
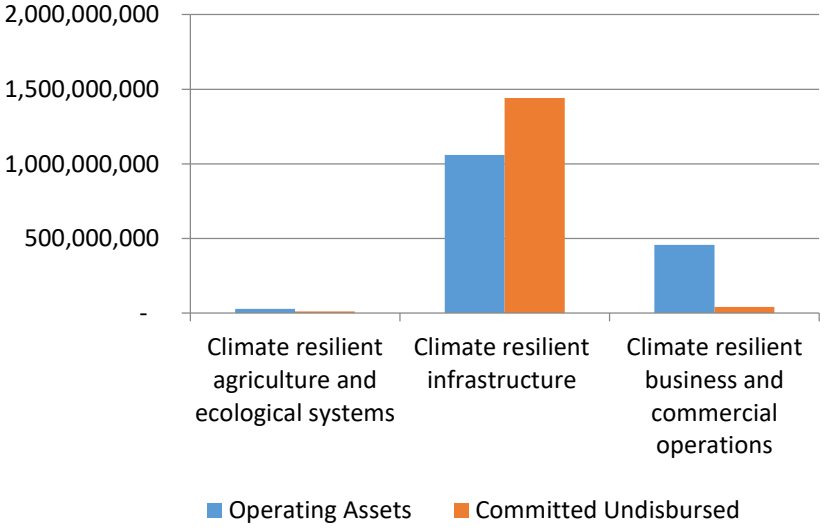
Climate Resilience Portfolio (at 30 June 2019):

- €1.54bn operating assets (€3.04bn committed amounts of which €1.5bn is undisbursed)
- 66 projects (in total 96 individual project facilities)
- 10.3 years weighted average remaining life
- 13.6 years weighted average tenor
- 3.3 year weighted average age of the assets

Op assets & Com Undisbursed by year



Op Assets and Com Undisbursed by category



EBRD Climate Resilience Portfolio (II)

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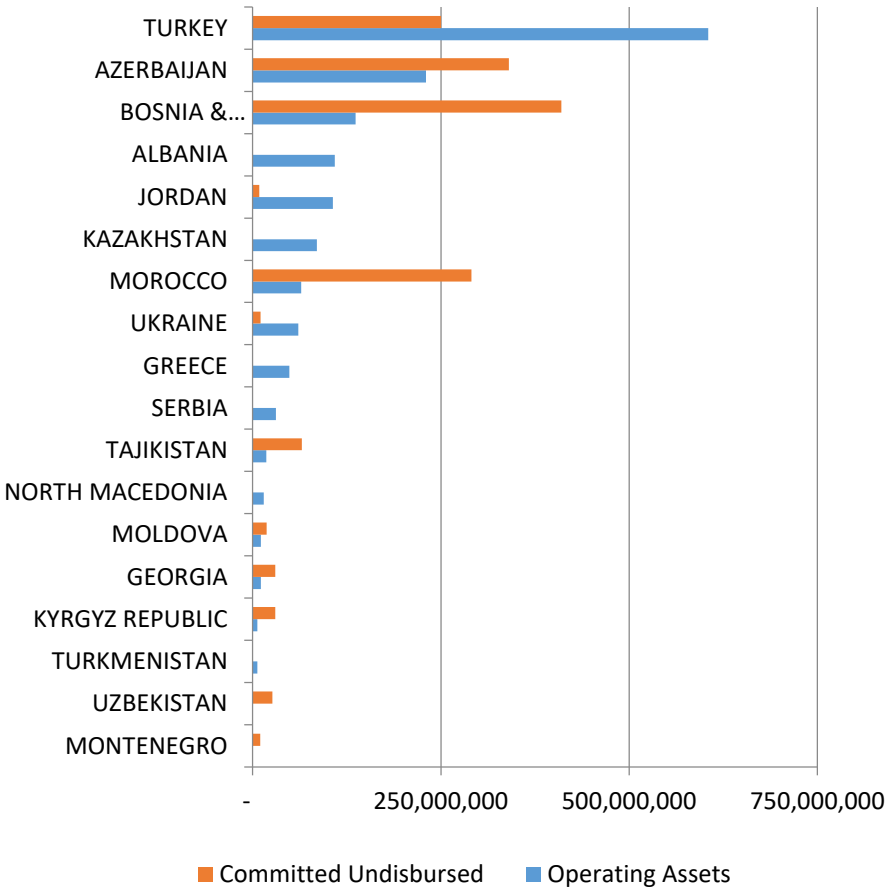
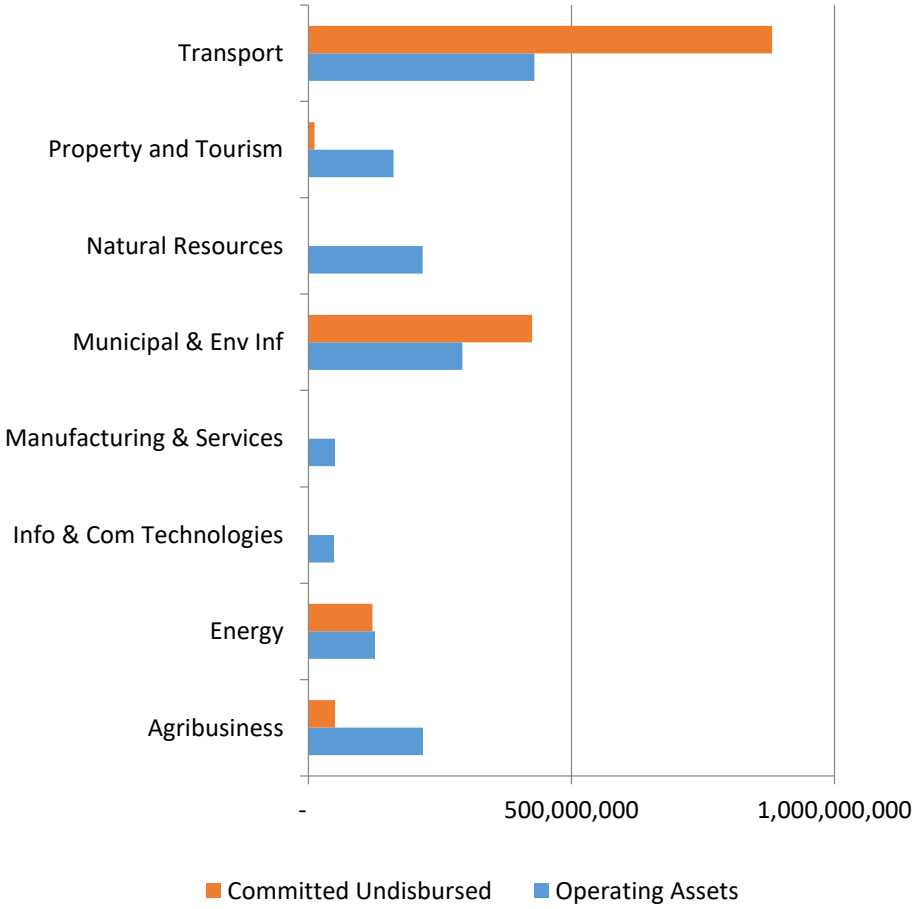
Operating Assets and Committed Undisbursed by country



Operating Assets and Committed Undisbursed by industry



Project example: Increasing climate resilience of **irrigation infrastructure** in Morocco

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CLIENT AND PROJECT

A loan to the Kingdom of Morocco for the **Saïss Water Conservation project**, which will finance a bulk water transfer scheme and help to prepare a Public-Private Partnership (PPP) with regards to the implementation of the new irrigation networks. The Project will shift the paradigm of water provisions for the Saïss irrigation system, switching from highly unsustainable groundwater to sustainable surface water resources.

CLIMATE RESILIENCE MEASURES

- Provision of critical irrigation infrastructure – a bulk water transfer scheme, to transfer 90-110 million m3 of surface water annually from the M'Dez dam to the Saiss Plain area.
- Technical and institutional capacity development
- Community involvement in water governance and improved awareness of climate resilience issues among end users of water services
- Scaling up of private sector involvement in the design, implementation, operation and maintenance of irrigation infrastructure (PPP structure)

FINANCIAL STRUCTURE

TOTAL Project Value :	**€ 397.2 million**
EBRD loan:	€ 120 million
of which GET adaptation	***€ 120 million***
Morocco equity:	€ 149.2 million
GCF capex & TC grant:	€ 32 million
Saudi Arabia grant:	€ 70 million
Institutional Investor loan:	€ 36 million

Project example: Improving resilience to climate change in **Tajikistan's hydropower sector**

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CLIENT AND PROJECT

Support to the Tajik state-owned power utility for financing the rehabilitation of two units at the **Qairokkum hydro power plant.** The output of the plant supplies electricity to 500,000 people.

This will increase capacity of the plant from 126MW to 142MW and strengthen the plant's resilience against the projected impacts of climate change.

CLIMATE RESILIENCE MEASURES

- Rehabilitation of hydro power plant to make its operation more climate-resilient
- Design of the upgrade to include climate resilience considerations by modelling future hydrology under a range of climate change scenarios
- Turbine upgrade and spillway capacities adjusted to optimise power generation and safety across the range of projected hydrological conditions.

TECHNICAL ASSISTANCE

Dedicated technical assistance to improve Barki Tojik's capacity to manage the impacts of climate change on its operations. Twinning programme with leading HPP operator Hydro Quebec on climate and hydrological data collection and usage, reservoir management and dam safety.

FINANCIAL STRUCTURE

EBRD loan	US$50 million
PPCR* funds, of which	US$21 million
Loan	US$10 million
Grant	US$11 million

*the Pilot Programme for Climate Resilience (PPCR), part of the Climate Investment Funds (CIF)

CLIMATE INVESTMENT FUNDS

UKaid from the Department for International Development

BMF FEDERAL MINISTRY OF FINANCE OF THE REPUBLIC OF AUSTRIA

Overview of investor response

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Issuer:	**European Bank for Reconstruction & Development (EBRD)**
Rating:	Aaa (Moody's) / AAA (S&P) / AAA (Fitch)
Issue amount:	USD 700 million
Pricing Date:	20 September 2019
Settlement Date:	27 September 2019
Coupon:	1.625% Fixed, SA 30/360
Maturity:	27 September 2024
Reoffer Price:	99.466%
Reoffer Yield:	1.737%
Reoffer vs. Mid-Swaps:	+15 bps
Reoffer vs Benchmark:	CT5 1.250% Aug 2024 + 9.15 bps
Lead Managers:	BNP Paribas, Goldman Sachs International, and SEB

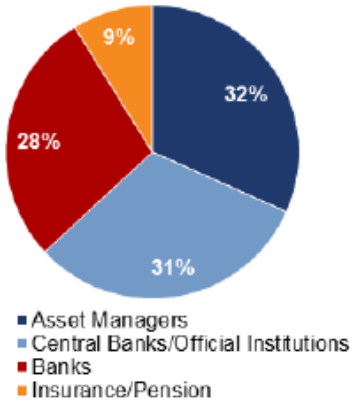
Transaction Highlights

- On Friday, 20th September 2019, European Bank for Reconstruction and Development (EBRD), rated Aaa (Moody's) / AAA (S&P) / AAA (Fitch), launched and priced its inaugural US$700mm 5-year Climate Resilience Bond due 27 September 2024
- The new 5-year issue is the first of a new category of green bonds, based on the recently announced Climate Resilience Principles, published by the Climate Bonds Initiative on 17 September 2019
- Timing of the issuance was key, taking advantage of a short window post FOMC and ahead of the UN Climate Change Summit which will convene on Monday 23rd September 2019 in New York
- The proceeds of the bonds are earmarked to support a specific portfolio of climate resilient investments and will typically fall under one of three categories:
  - climate resilient infrastructure (water, energy, transport, urban communications);
  - climate-resilient business and commercial operations; and
  - climate resilient agriculture and ecological systems
- The bonds were also issued in conformity with the four core principles of the Green Bond Principles as well as EBRD's Environmental and Social Policy

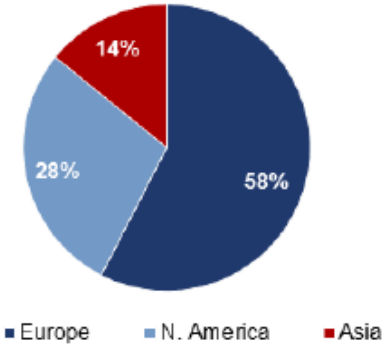
Transaction Execution

- BNP Paribas, Goldman Sachs International and SEB were mandated as joint lead managers on the transaction

Investor distribution by type



Investor distribution by region



Looking forward – what next?

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- EBRD intends to make further Climate Resilience Bond issuances - robust results monitoring & reporting will be important
- Interest elsewhere in climate resilience bond transactions, e.g. State of California
- More widely, there is a need for:
  - Building on the CBI Climate Resilience Principles to develop more detailed standards, definitions & criteria e.g. to enable certification
  - Alignment as appropriate with wider processes, e.g. EU Sustainable Finance, EU Green Bond Standard, Green Bond Principles, etc.