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### Rapid System Transitions Towards Low GHG Futures Workshop: Introduction to Days 2-3

Energy lives here

Dr. Haroon S. Kheshgi Senior Scientific Advisor ExxonMobil Research and Engineering Company Global scenario and other science issues and opportunities for:

# Climate-related finance, investment, and transition risk assessment

Agenda

- Perspectives from practitioners
- Perspectives from the scientific community
- · Opportunities for advancing science and informing practitioner decisions
- The way forward

## Typology of Finance, Investment, and Risk Management Communities: a working draft

- Different communities of practice share different interest/purpose and underlying science questions which may, or may not, overlap between different communities and may draw on IAMs in different ways.
- The purpose of this simple typology is to begin to clarify the range of communities, their science needs, and differences/overlaps.
- See strawman draft typology.

#### Communities: an initial list

- 1. International climate negotiations
- 2. Development Banks
- 3. National Central Banks
- 4. Investment Firms
- 5. ESG investors and funds
- 6. Technology Firms and Initiatives
- 7. Energy (and Industry) Firms
- 8. Project investment and management
- 9. Infrastructure/City investment and management
- 10. Insurers
- 11. Re-insurers

### Questions defining community role and needs

- Core area interest/objective of the community?
- Climate-related science question?
- Timeframe of interest?
- Notable initiatives?
- Key publications?

#### Example initial draft: International Climate Negotiations

- Interest: role of finance in international agreements.
- Climate-relevant science question: what are useful ways for international finance to enable climate agreements, and how is it defined and measured?
- Timeframe of interest: Timeframe for the negotiations and objective (years to decades).
- Notable initiatives: UNFCCC, IPCC
- Key publications: Paris Agreement and associated UNFCCC documents, IPCC assessments (e.g. finance chapter)

#### Example initial draft: National Central Banks

- Interest: ensuring a well-functioning financial system.
- Climate-relevant science question: what are the potential ways in which climate change might cause risks to the functioning of financial systems, and how should these risks be managed?
- Timeframe of interest: Timeframe relevant to risk management decisions. Typically on the order of a decade or less.
- Notable initiatives: FSB, TCFD
- Key publications: TCFD report

#### Example initial draft: Energy (and Industry) Firms

- Interest: meeting energy (product, service) demand while reducing risks.
- Climate-relevant science question: how should energy firms manage the risks (policy and physical) of climate change and communicate with their investors and other stakeholders?
- Timeframe of interest: Timeframe relevant to risk management decisions for the firm's business (typically on the order of a decade or less), and role in societal risk management (the full range of timescales, but may not be particular to specific firms).
- Notable initiatives: TCFD and other disclosure practices
- Key publications: Firm disclosures

#### For Workshop Discussion

 How would practitioners and scientists define their role, science questions, etc related to this topic?

 What are the connections between the research communities and practitioner communities?

The white paper concept (to be introduced by Steve Rose)