THE ROLE OF CLIMATE-RELATED SCENARIO ANALYSIS IN DISCLOSURE

STAN DUPRE – CEO 2Dii
TCFD Event, Bloomberg
New York City, May 1st, 2018
2°C INVESTING JOURNEY ON CLIMATE-RELATED SCENARIO ANALYSIS
ABOUT 2° INVESTING INITIATIVE

THINK TANK SPECIALIZED ON CLIMATE & THE FINANCE SECTOR

- Climate-related metrics, data and tools development and policy research
- Non-for profit, no commercial activities, multi-stakeholder board
- Funders (grants): EC, Germany, Switzerland, foundations, a few financial institutions

STAN DUPRE

- Founder & CEO of 2Dii
- Member of the EC High Level Expert Group on Sustainable Finance (drafted ESAs, MIFID)
- Co-chair ISO 14097 (climate-related metrics for the finance sector), with UNFCCC Secretariat
- Co-lead Science-Based Target Initiative for the Finance sector, with Ecofys
MY JOURNEY
From corporate reporting to portfolio carbon footprint to scenario analysis
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SCENARIO ANALYSIS FRAMEWORK
Assessing the alignment of assets and investments with climate goals

**DATA ON PHYSICAL ASSETS + CAPEX/PRODUCTION PLANS**

For renewable power capacity additions in:
- Global stock market
- Global economy

**Compared with**

**IEA TECHNOLOGY ROADMAPS**

**Coverage:** 100% of stocks and corporate bonds in power, oil & gas, coal mining, car manufacturing, aviation, shipping, cement and steel. All funds from Morningstar, AM Best, etc. Extension to other bonds and corporate bank loans in 2018. **Output indicators:** gap in deployment (MW, cars, etc.) and locked-in emissions beyond carbon budget.

**SEI Metrics consortium** (led by 2° Investing)
CLIMATE-RISK ASSESSMENT FRAMEWORK

Assessing the value at risk in a transition scenario

2 scenarios (Ambitious and Limited transition) covering 8 sectors (oil & gas, coal, power, automotive, aviation, shipping, cement and steel + cross-sectors) for 7 regions (World, US, Germany, France, Italy, Mexico, Brazil).

Input indicators: prices and costs, sales volume, carbon tax, efficiency standards...
Output indicators: impact on EBITDA, EBIT, CAPEX on 2018 to 2040.

Toolbox: Scenarios*, guidance for analysts*, case studies on companies valuation*, database of physical assets, database of risk parameters for listed companies.

ET RISK consortium (led by 2° Investing)

*Available free of charge. The other outputs are commercial services provided by the consortium members.
PORTFOLIO ANALYSIS
Stock, bonds and real assets in energy-related sectors

PORTFOLIO VS 2D SCENARIO

THE TREND FOR THE PORTFOLIO FOR LOW-CARBON TECHNOLOGIES RELATIVE TO THE 2°C SCENARIO

THE TREND FOR THE PORTFOLIO FOR HIGH-CARBON TECHNOLOGIES RELATIVE TO THE 2°C SCENARIO

NORMALIZED CAPACITY BUILD OUT

2017 2018 2019 2020 2021 2022

>6°C 6°C-4°C 4°C-2°C <2°C Hybrid Vehicles Renewable Capacity Electric Vehicles

BENCHMARKING AGAINST PEER GROUP/MARKET

INVESTOR NAME: SAMPLEPORT

CLIMATE ALIGNMENT PILOT TESTS SWITZERLAND 2017

240 of 634

Rank

Renewable Power Capacity 0 % 64 % 200 % 240 of 634

Coal Production 0 % 137 % 200 % 240 of 634
COMPANY ANALYSIS
All companies in energy-related sectors

TECHNOLOGY DEPLOYMENT VS 2D TARGET

Coal capacity - required changes to meet climate goals vs. estimated planned investment (2016-2022, in GW)
Source: 2ii based on Global Data

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<tr>
<th>Year</th>
<th>Planned Additions</th>
<th>Required Retirements by 2020</th>
<th>Required Retirements by 2025</th>
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BENCHMARKING AGAINST PEERS

- Planned additions
- Required retirements by 2020
- Required retirements by 2025
**SCENARIO ANALYSIS IN DISCLOSURE REGULATIONS**

Mandatory disclosure schemes and policy actions

**ARTICLE 173 IN FRANCE**

2015-17: drafting of the law, support on the decree, organization of the government’s awards on climate disclosure.

2018: stock-take and support to the review of the decree on target setting

**EXPORTING ART 173**

In 2016-17: mapping of options investor for disclosure regimes, expertise provided to the European Commission (HLEG), and California Senate (SB560).

2018: support to various governments, international comparison of existing governmental approaches to promote climate scenario analysis

**CLIMATE-RELATED METRICS & TARGETS FOR THE FINANCE SECTOR**

In 2016-17: mapping of needs and practices.

Asset owners and investment intermediaries shall examine the materiality of risks and value drivers, including ESG factors, consistent with the timeframe of the obligation to the client or beneficiary/member.

Whether financially material or not, the preferences of clients, members and beneficiaries shall be pro-actively sought and incorporated into investors’ investment decision-making and the demands that they, in turn, make on the asset managers and other participants with which they interact to deliver their obligations to clients.

Require investment advisers to ask about, and then respond to, retail investors’ preferences about the sustainable impact of their investments, as a routine component of financial advice.
USE CASE FOR SCENARIO ANALYSIS AND ROLE OF DISCLOSURE
USERS AND USE CASES

Why scenario analysis?
Why scenario analysis?
USERS AND USE CASES
What is the objective?

- SCENARIO ANALYSIS
- PORTFOLIO MANAGEMENT
- TARGET SETTING
- MANAGING A POTENTIAL MISPRICING OF LONG-TERM ENERGY TRANSITION RISKS
- CONTRIBUTING TO DECARBONIZE THE REAL ECONOMY
Who is at the top of the ‘food chain’?

**SCENARIO ANALYSIS**

**PORTFOLIO MANAGEMENT**

**MANAGING A POTENTIAL MISPricing OF LONG-TERM ENERGY TRANSITION RISKS**

**CONTRIBUTING TO DECARBONIZE THE REAL ECONOMY**

**GOVERNMENTS**

**FINANCIAL SUPERVISORS**
SCENARIO ANALYSIS AND DISCLOSURE

The ‘traditional’ bottom-up approach
SCENARIO ANALYSIS AND DISCLOSURE

The ‘traditional’ bottom-up approach
SCENARIO ANALYSIS AND DISCLOSURE
The ‘traditional’ bottom-up approach

ISSUER
- Lack of reference scenario
- Disclosure

INVESTOR/BANK
- Lack of standard on metrics
- Disclosure

FINANCIAL SUPERVISORS
- Lack of evidence on short term materiality
SCENARIO ANALYSIS AND DISCLOSURE

The ‘traditional’ bottom-up approach

ISSUER

COST

INVESTOR/BANK

FINANCIAL SUPERVISORS
SCENARIO ANALYSIS AND DISCLOSURE

The complementary top-down approach

ANALYSIS BASED ON PHYSICAL ASSET LEVEL DATA
SCENARIO ANALYSIS AND DISCLOSURE

The complementary top-down approach

ANALYSIS BASED ON PHYSICAL ASSET LEVEL DATA
SCENARIO ANALYSIS AND DISCLOSURE
The complementary top-down approach

ANALYSIS BASED ON PHYSICAL ASSET LEVEL DATA
SCENARIO ANALYSIS AND DISCLOSURE

Expected benefits

- COST
- TIME
- COMPARABILITY
SCENARIO ANALYSIS AND DISCLOSURE

Implication for the TCFD ecosystem

ISSUER

Vision/forecasts

INVESTOR/BANK

Bets

SUPERVISORS/GOVS

Data validation

PHYSICAL ASSET LEVEL DATA

CLIMATE SCENARIOS

SCENARIO REPOSITORY
SCENARIO ANALYSIS AND DISCLOSURE

Conclusions

LOW COST
IMMEDIATE IMPLEMENTATION
FULL COMPARABILITY
**SCENARIO ANALYSIS AND DISCLOSURE**

**Conclusions**

- Low cost
- Immediate implementation
- Full comparability
- Diversity of scenarios
SCENARIO ANALYSIS AND DISCLOSURE

Conclusions

INVESTORS’ TARGETS CONSISTENT WITH COMPANY TARGETS

LOW COST
IMMEDIATE IMPLEMENTATION
FULL COMPARABILITY

DIVERSITY OF SCENARIOS