Assessing Physical Risk Using Bloomberg MAPS

Presented by Bobby Shackelton
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Introduction & Mission

• Maps are a natural form of orientation and have been used for centuries to make decisions

• Change the way people make decisions
What is Bloomberg MAPS?
Bloomberg MAPS solves problems and exposes insights impossible to understand elsewhere

**Market Share**
Understand how well a firm is doing in the marketplace compared to its competitors.
Ex: What CMBS and REIT properties are within 5 mins of driving of my properties and how do the vacancy rates compare?

**Supply & Demand**
Clients want to understand market changes, in real time, to capture price discrepancies in fast moving markets.
Ex: Where is the cheapest place for Microsoft to build a server farm? (What is their price exposure to electricity cost?)

**Merger & Acquisition Impact**
Target assets and locations for growth and identify synergies as M&A opportunities.
Ex: Apollo Commercial Real Estate just closed a $15 million subordinate loan and deployed $29 million to acquire CMBS, what top-tier ski resorts could be acquired in the United States?

**Environmental Risk**
Predict and measure the impact of natural disasters against their assets, portfolio, and industry.
Ex: What was the impact to my portfolio of properties in Houston as a result of flooding from Hurricane Harvey.

**Geographic Exposure**
Clients want to understand high-risk markets that are heavily concentrated vs dispersed.
Ex: Which CMBS loans had the most exposure to local economic weakness during the 2008 financial crisis?
Bloomberg MAPS is a full-stack platform

- Built for custom use cases, allows custom data uploads, provides visual analysis, and offers advanced presentation tools
200+ Unique Datasets in Bloomberg MAPS

• **80+ energy datasets**
  – Exploration, Power, Renewables, Agriculture, Metals, Coal, Natural Gas, Oil
  – Include, but not limited to, mines, sources, transmission, and reserves

• **30+ environmental datasets**
  – Water Risk, catastrophes, weather, EPA regions, protected areas, and more

• **30+ infrastructure and communications datasets**
  – Telecom, Airports, Railroads, Dams, Silk Road, Admin Boundaries, etc

• **Alternative data and basemaps**
  – Satellite, Traffic, Terrain, Streets, Dark *(for data visualization/emphasis)*
UNEP FI and Bloomberg MAPS Collaboration
UNEP FI, together with 16 of the world’s leading banks, is working on implementing recommendations set forth by TCFD.

- ANZ, Barclays, BBVA, BNP Paribas, Bradesco, Citi, DNB, Itaú, National Australia Bank, Rabobank, Royal Bank of Canada, Santander, Société Générale, Standard Chartered, TD Bank Group and UBS.

Develop scenarios, models and metrics to enable scenario-based, forward-looking assessment and disclosure of climate-related risks and opportunities.

The goal is to develop approaches to better understand physical risks to the companies in the banks’ loan portfolios in the energy, transport, agriculture and real estate sectors.
Bloomberg MAPS team engagement with UNEP FI

• Initially to assess physical risk to the energy sector, including oil and gas, but primarily for power.

• Onboarding nearly 100 climate-focused datasets
  – Historical Data and Risk for: Cyclone, Wildfire, Flood, Storm Surge, Water

• Creating spatial relationships between Power Plants and climate factors
Identify Power Plants within a Portfolio of Companies with Cyclone Risk
Global Power Plants
Global Cyclone Risk
Cyclone Risk for Power Plants
Southern Company’s Power Plants - Cyclone Risk
Southern Company’s High-Risk Plants for Cyclones
Ability to Export Map Images for Presentations
## Ability to Export Tabular Data for Analysis

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*Note: The table above is a sample representation of data that can be exported for analysis.*
Identify Power Plants within a Portfolio of Companies with Wildfire Risk
Global Power Plants

Southern Company Cyclone Risk for Power Assets

Cyclone Risk for Alabama Power, Georgia Power, Gulf Power, and Piedmont Power

Bloomberg
Global Wildfire Risk
Wildfire Risk for Power Plants
My Portfolio of Power Plant Assets – Wildfire Risk
My Portfolio's High-Risk Plants for Wildfires
Ability to Export Map Images for Presentations
Ability to Export Tabular Data for Analysis

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