BNP PARIBAS PRACTICES AND PERCEPTIONS REGARDING THE COAL SECTOR

COAL TRANSITION STAKEHOLDERS MEETING

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The bank for a changing world
The energy transition within the coal sector

Some companies in the coal sector are already rated as highly risky assets on the market with collapsing values.

**Coal price** divided by two since 2012. -20% in last 12 months.

**Dow Jones Total Market Coal Sector Index:** -76% over the past five years

**Mercer, 8/07/2015:** Depending on the climate scenario which plays out, the average annual returns from the coal sub-sector could fall up to 74% over the next 35 years, with effects being more pronounced over the coming decade (eroding between 26% and 138% of average annual returns over the next 10 years).

**15/09/2015: Glencore:** the company, already the worst performer in the FTSE 100 index in 2015, has lost almost 60% of its value since the beginning of the year.

**16/07/2015:** Since 2015, values of Arch, Peabody or Alpha Natural Resources have collapsed by 30, 40 and 70%.

**28/08/2015:** Standard & Poor’s assessed 21 mining companies and 15 of them have been rated as speculative obligations – i.e. embedding important risk for investors.

**Carbon Tracker:** principal energy companies could lose between 40 and 60% of their stock exchange value if the 2°C target is enforced.

**McKinsey** forecasts a possible loss of 30 to 40%. **BP,** for example, would be unable to burn a quarter of its reserves if the 2°C target was enforced. There would be a secondary effect too: because of the oversupply of fossil fuels, their price would fall.

**30/09/2015: Rio Tinto** sells its Bengalla mine in Australia to reduce its exposure to coal under pressure from the markets.

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HOW DOES BNP PARIBAS MANAGE THE ENERGY TRANSITION?
The energy transition is a BNP Paribas topic

1. **A risk issue:**
   - Public policies and regulation can have a strong impact on clients’ business models
   - Some assets would lose value
   - Stress tests: regulators (for example ACPR) expect banks to explain how they take the carbon risk into account in their financing and investment strategies.
   - Rating agencies (S&P) expect companies to explain their climate strategies.

2. **Opportunities:**
   - The development of renewable energies in certain countries
   - The energy efficient market is large: it needs 650M $/year to reach the energy efficiency goals set up by several countries
   - The energy transition is at the core of many of our clients’ strategies.

3. **Strong external expectations:**
   - BNP Paribas was the renowned bank in energy
   - Within the context of the COP21, the external stakeholders expected the Bank to take a strong position
   - Institutional investors are asking for proofs that we are handling the subject

4. **Our collaborators expectations:**
   - Internal staff assessment
   - Top managers seminars
Our commitments to the energy transition

**Reduce our exposure to coal**
- Stop financing coal-fired power plants in high-revenue countries, and reinforce the selection criteria in other countries.
- Only finance companies which are committed to diminishing the share of coal in their production.
- Stop financing coal mines.

**Strengthen carbon risk management**
- Systematic use of internal carbon price.
- Adaptation of rating methodologies to take climate change into account in companies and projects financing.

**Combat deforestation**
- BNP Paribas signed the BEI Soft Commodities Compact and committed to a net zero deforestation objective in its financing and investment activities.
- Criteria to protect forests are included in agriculture, palm oil and wood pulp sector policies.

**Finance the energy transition**
- Double our financing in renewable energies.
- Rank among the top 3 issuers of euro-denominated green bonds.

**Invest in low carbon economy**
- BNP Paribas investment partners signed the Montreal Carbon Pledge and the portfolio decarbonization coalition, which engage to measure, publish and reduce the carbon footprint of managed funds.
- BNP Paribas offers investors a large range of low carbon funds.

**Accompany technological innovation**
- Support innovative start-ups to accelerate the energy transition.
- Investment: €100 million by 2020.

**Reduce our own greenhouse gas emissions**
- Greenhouse gas emissions (Equivalent tonne CO₂ per employee)
- 2012: 3.21, 2014: 2.91, 2015: 2.88, Objective 2020: 2.41
- CO₂ reduction of 25%
HOW DOES BNP PARIBAS MEASURE ITS EMISSIONS?
Although BNP Paribas primary energy mix (coal, oil & gas) is in line with IEA 2°C scenario …

- The gas and coal shares already beyond the 2040 objectives of the EIA
- The oil share makes progress towards the 2030 objectives
... the renewables share must significantly increase in order to meet the 2040 objective

Source: Enea, IAE
HOW DOES BNP PARIBAS INTERFERE WITH COAL MARKETS?
Corporate and Institutional Banking: overview

BNP Paribas Corporate and Institutional Banking is a globally recognised leader

Offering you capital markets, securities services, financing, treasury and advisory solutions

57 countries | 13,000 corporate & institutional clients | 29,800 people at your service

BNP Paribas Corporate and Institutional Banking

GLOBAL MARKETS
Investment, hedging, financing, research and market intelligence across asset classes

SEcurities services
Clearing and custody services, asset and fund services
Corporate trust services, market and financing services

TREASURY, FINANCE AND ADVISORY
Corporate trade and treasury solutions
Debt financing, specialised financing
Strategic advisory, mergers & acquisitions and equity capital markets

INSTITUTIONAL CLIENTS

CORPORATE CLIENTS

The bank for a changing world
Treasury, finance and advisory: overview

Business lines that can interact with coal market (mining or coal fired power plants)

- Corporate & acquisition finance
- Leveraged finance
- Export & project finance
- Aircraft & shipping
- Energy & commodities
- Media & telecom
- Real estate
Corporate investment banking

Lending: project or corporate basis

- Long term exposure
  - Impact on our clients’ business model
    - Public policies and regulation can have a strong impact on clients business models
      - Additional costs for compliance → impact on P&L
    - Specific issue of “stranded assets”: some assets will lose value
      - Not exploitable for the companies that owns them → impact on P&L
      - Irrecoverable for creditors → potential impact on our recovery expectations
      - Potential liability: cost of depollution → impact on P&L

- Bankruptcies
  - Ex: MTR producers - Arch Coal (US coal company) filed for bankruptcy in 01/16 with more than $4.5 billion in long-term debt

- Downgrade assessments by rating agencies
  - Moody's has put 175 companies working in the mining and oil sectors, including some of the biggest in the world, on what it calls a "downgrade review." → impact on funding costs ie on balance sheet
Global Market (1/2)

- **G10 rates**
  - Offering a comprehensive suite of interest rate products to address clients' needs, from financing and market access to yield enhancement and hedging.

- **Equity derivatives**
  - Providing expert solutions from equity research through flow products to bespoke structured solutions for clients. Access our products online through the SMART derivatives platform.

- **Forex and local markets**
  - Offering a complete suite of products and services to address clients' investing and hedging needs: sales, trading, research and strategy. FX Prime Brokerage, local markets coverage and electronic trading capabilities.

- **Commodity derivatives**
  - Delivering financing, risk management and investment solutions to corporate and institutional clients whose businesses are highly correlated to commodity prices — providing all round social utility to the wider industry.

- **Credit**
  - Providing an added value service on credit markets to our institutional clients. Our global offer includes vanilla flow products, emerging market expertise and complex derivatives solutions.

- **Prime solutions and financing**
  - Delivering multi-asset execution, clearing and financing for clients. Whether you want to finance your investment strategies, enhance your cash and securities balances, gain access to derivatives markets or secured and efficient clearing facilities.

- **Primary markets**
  - Providing funding and capital solutions to Corporates, Sovereigns, Supranationals and Agencies (SSAs) and Financial Institutions via the global bond and loan markets.
Global Market (2/2)

- **Bond and equity issue**
  - Mainly underwriting risk: no or little credit exposure
  - All issuance are public ➔ strong reputation risk
  - Consistency between public position and risk issue

- **Derivatives: market risk**
Asset management

- What are « asset management » teams doing?
  - Asset management: managing funds of retail, corporate and institutional.
  - EUR 532 billion asset under management in 2016
  - 3 main business lines:
    - Institutional investors
    - Distribution to retail
    - APAC & Emerging

- What are the risks?
  - Fiduciary risk:
    - Loss in share market value
      - In the US, coal market collapses – a lot of producers have lost up to 80 % of their market cap within 3 years. Dow Jones Total Market Coal Sector Index has lost 76 % of its value within 5 years whereas Industrial index rose by 69 %.
    - Impact on the assets we manage for our clients
      - Shift from ignoring ESG criteria in asset management to divesting from carbon assets to protect long term performance according to our fiduciary duty

- Increasing reporting requirements
EFFECTS OF AN INTERNAL CARBON PRICING IN FINANCING DECISIONS
Definition of our shadow carbon pricing and its associated risk

Integration of a carbon shadow price in 6 sectors

- Range of carbon price
- Analysis if carbon price impact on demand and P&L

Today, the implementation of emissions regulation/carbon pricing initiatives has shown considerable variability and volatility, dampening investment in clean energy sources. Globally, carbon prices vary from less than 1$ per tCO2e to 130$, with 85% of emissions priced at less than 10$, which is significantly below the price that economic models estimate is necessary for remaining under 2°C (source ESRB Feb 2016 report)
ANNEXES: SECTOR POLICIES
SECTOR POLICY: COAL FIRED POWER GENERATION

- **Objectives:**
  Address environmental and social issues to coal-fired power generation sector, reduce the Group’s exposure in this sector.

- **New more stringent policy announcement as part of COP 21**
  - New policy publication in December, 2015
  - The first ends of relation with companies without diversification strategy were set up in January 2015

- **Exclusion criteria for projects:**
  - BNP Paribas will not provide financial products and services to CFPP projects located in High Income countries.
  - In non-High Income countries: minimum energy efficiency (technical requirement: 43 % HHV)

- **Exclusion criteria for companies:**
The CFPG company has a diversification strategy to reduce the share of coal in its power generation mix. This diversification strategy must be at least as ambitious as the national commitment to limit GHG emissions of the country where its principal operations are located. The implementation of the strategy will be annually monitored.

- **Concrete actions:**
  - Since 2011, the Group has refused to participate in the financing of more than 20 power stations worldwide, representing annual emissions of more than 138 MteqC02 equivalent, mainly by applying the energy efficiency criteria in the policy.
  - This represents more than 30% of annual emissions in France and 260 times the annual of the BNP Paribas Group (2014 data)
SECTOR POLICY: COAL-FIRED POWER GENERATION

- **OBJECTIVES**
  - Addressing social and environmental issues of the coal fired power generation sector and conducting business in a responsible manner

- **Grounds for exclusion for projects:**
  - Insufficient legal framework regarding Health and Safety and environment in the host country
  - **Net energy efficiency depending on location and size** of the project and whether or not the project is Carbon Capture and Storage Ready (except for retrofitting)
  - When applicable, no compliance with the applicable WB/IFC Environmental, Health, and Safety Guidelines
  - No operating license or no compliance with existing social and environmental laws and international regulations
  - No adequate social and environmental impact assessment

- **Grounds for exclusion for companies:**
  - Inadequate disclosure of safety track record or environmental data

- **Complementary environmental, social and governance due diligence on the project, the company and the host country**

- **Policy update in 2013:** allow the financing of new small coal-fired power plants in developing countries
  - Best solution available locally to generate electricity (geographical constraints or small amount of local demand)
  - Provided they are built using the best available technologies

- **Policy update in 2015:** No further financing of coal-fired power plants in high-income countries. BNP Paribas will strengthen selection criteria in other countries

- **Concrete actions:**
  - Since 2011, for every 4 projects analysed, 3 were rejected
  - Internal carbon pricing (2015) and integration of climate component in the projects and companies rating methodology
SECTOR POLICY: MINING

- **Objectives**
  - Financing or investing responsibly in the mining sector by taking into account governance, social and environmental issues
  - Reducing the Group’s exposition towards coal mining

- **Grounds for exclusion for projects:**
  - Located on protected areas or in countries under financial sanctions or in conflict area
  - Use of child or forced labor or do not respect Health and Safety requirements as defined in the ILO Conventions
  - Do not include a site reclamation plan or cannot provide a health and safety management plan and track record
  - Extract asbestos, artisanal or small-scale mining activities, Appalachian MTR projects or use riverine or shallow marine tailings disposal

- **Grounds for exclusion for mining companies:**
  - Have their headquarters located in countries under financial sanctions or cannot disclose information on their performance related to water use, waste, GHG emissions and land reclamation
  - Use child or forced labour as defined in the ILO Conventions or cannot provide a track record regarding health and safety at company level
  - Are involved in asbestos extraction or significant producers of coal extracted from Appalachian MTR operations

- **Complementary environmental, social and governance due diligence on the project and the company**