

DECREE IMPLEMENTING ARTICLE 173-VI OF THE FRENCH LAW FOR THE ENERGY TRANSITION:

CHALLENGES AND FIRST RECOMMENDATIONS

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Briefing note realised as part of the actions financed by:

European Union



ADEME Agence de l'Environnement et de la Maîtrise de l'Energie agreement No 649982





OUTLINE

- Context: Energy Transition Law
- Summary of Art 173 provisions for institutional investors
- 2°II technical analysis of implementation options
- Challenges for implementation:
 - Costs of implementation/reporting
 - Data providers/competitive issues
- Summary and discussion

CONTEXT: FRENCH ET LAW

- The French National Assembly adopted the Energy Transition Law, broad legislation to:
 - Reduce French greenhouse gas (GHG) emissions,
 - Cap fossil fuel and nuclear production, and
 - Increase renewable energy usage.
- Law also contained several provisions on climate-related disclosure for both:
 - Companies (climate-related financial risks and measures to reduce them);
 - Banks (risk of excessive leverage and evidence of stress tests); and
 - Large institutional investors (next slide and remainder of presentation)
 - Logic for both types of disclosure follows similar theories of change:

Theory of change	Assumptions	Caveats	
Epiphany & repricing	 Investors misprice climate policy risks. Disclosing risk exposure (companies and investors) forces a review of assumptions This will eventually lead to a reallocation of investments from high carbon to low carbon assets. 	 3-5 year investment horizons Questionable materiality of climate and carbon risks over this horizon Climate-related risks are one of many risks 	
Carrot & stick	 Disclosure allows stakeholder to compare/rate Potential future policy incentives/labeling schemes Reputational risk or incentives will lead to reallocation of investments from high carbon to low carbon assets. 	 Value-driven investors are niche market The political will for such incentives is currently lacking and may not materialize in many countries. 	

RELEVANT TEXT OF ART 173 (INSTITUTIONAL INVESTORS)

- Four major requirements in Art 173 for institutional investors (2dII translation):
- "disclose in their annual report, and make available to their beneficiaries, information on how their investment decision-making process takes social, environmental and governance criteria into consideration, and the means implemented to contribute to the energy and ecological transition."
- "the exposure to climate-related risks, including the GHG emissions associated with assets owned, the the contribution to the international goal of limiting global warming and to the achievement of the objectives of the energy and ecological transition. That contribution will be assessed in particular with regards to indicative targets defined according to the nature of their activities and investments, in a way that is consistent with the national low-carbon strategy."

RELEVANT TEXT OF ART 173 (INSTITUTIONAL INVESTORS)

Type of information	Law text	Qualitative or Quantitative?	Description and context
1. Investment policies	"information on how their investment decision-making process takes social, environmental and governance criteria into consideration"	Qualitative	A description of the integration of climate (and other ESG) issues into investment decisions
2. Financial risk exposure	"the exposure to climate-related risks"	Unclear	Exposure to financial risks associated with climate change, either physical or carbon asset risk
3. Associated GHG emissions	"including the GHG emissions associated with assets owned"	Quantitative	Carbon footprint of the investor's portfolio or a relevant portion of the portfolio
4.Contribution to the energy transition (ET)	"the contribution to the international goal of limiting climate change and the contribution to the realization of the energy and ecological transition. That contribution will be assessed with regards to indicative targets set by institutional investors taking into account the nature of their activities and investments, in a way that is consistent with the national low-carbon strategy"	Unclear, likely quantitative	Degree to which investor's portfolio is aligned with both international (i.e. a 2°C warming target) and French climate change policies

KEY TECHNICAL CHALLENGES ACROSS REQUIREMENTS

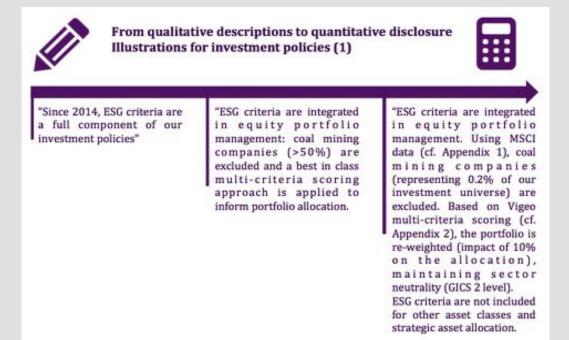
- Implementation decree will have to:
 - Reflect different levels of data and method availability
 - Set level of ambition/precision in disclosure (Qualitative <-> Quantitative)

Type of information	Availability of methods	Availability of data
1. Investment policies	No standard but converging practices	• N/A
2. Financial risk exposure	 Well-developed at asset level Mercer method for strategic asset allocation. 	 Bespoke research, no systematic rating* Mercer method based on assumptions by activity and sector.
3. Associated GHG emissions	 Various methods with advantages and limitations Standard expected in 2016. 	 Equity and listed corp bonds broadly available Gap on non-corporate bonds, banks and ABS Recently private equity. Ad hoc coverage of infrastructure
4.Contribution to the energy transition/alignment with climate targets	 First portfolio method for equities expected in October 2015 and for bonds in Q1 2016. 	 Only on equity and corporate bonds Development on sovereigns in 2016-17

^{*}Assuming most ESG scorings are 'non-financial', i.e. not a proper financial risk rating/Var

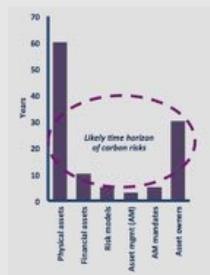
REQUIREMENT 1: INVESTMENT POLICIES

- Generally well-established practices, though based primarily on equities
- Practices vs. decisions. An ambitious requirement should explain the practical consequences of ESG criteria on the composition of portfolios, including strategic asset allocation
- Illiquid assets. To maximize impact, investors should disclose information on all relevant asset classes, including those not traditionally associated with ESG analysis, but important from a climate impact perspective (private equity, real estate, infrastructure, etc.).



REQUIREMENT 2: CLIMATE-RELATED FINANCIAL RISKS (1)

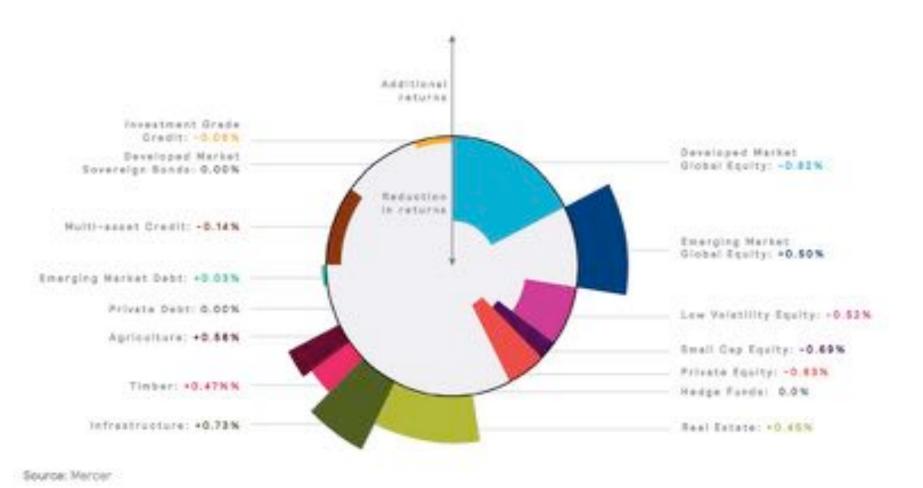
- Recent reviews identify three types of climate-related risks for FIs:
 - Carbon risks (aka carbon asset risks, transition risks):
 Policy and techno-economic risks linked to the transition to a low-carbon economy
 - Physical climate risks: Physical risks related to climate change (e.g. drought, wildfire, etc.);
 - Legal climate risks: Litigation on liability of companies, states or individuals associated with climate change.
- Two assumptions to require regulatory oversight:
 - Materiality: carbon and climate risks are material to investors over relevant time horizons
 - Market inefficiency: These risks are not already factored into risk management models
- Methods available differ in scale and scope:



Approach and examples	Scope	
Differentiated hypotheses on return by asset class (top-down)	Strategic asset allocation	
2. Alternative Discounted Cash Flows	Security level	
3. Analysis of technology diversification bias	Portfolio (equity or bonds) or at company level	
4. Stress test variables (oil prices, electricity prices, CO2 prices, etc.) on portfolio value.	Portfolio level (equity/debt/ bank balance sheet)	

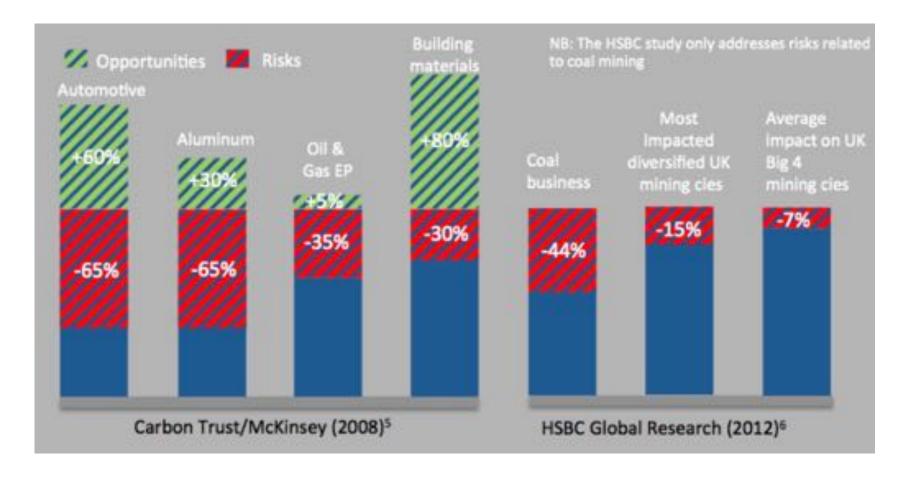
Best practice

Mercer analysis results (expected returns, 10 year, multi-asset portfolio)



Best practice

 Alternative valuation of equities based on DCF analysis, using 2DS policy and commodity price assumptions (bespoke papers)



REQUIREMENT 2: CLIMATE-RELATED FINANCIAL RISKS (2)

- The application decree for Art. 173(VI) should clarify important points including:
 - types of climate-related risks that investors (and companies) are required to disclose on (physical, legal, carbon risks);
 - whether quantitative analysis is expected, and by what method; and
 - potentially the appropriate methods or time horizon.



From qualitative descriptions to quantitative disclosure Illustrations for financial risks (2)



"We analysed our exposure to climate risks and the analysis did not reveal any material risk".

"We have analysed our global portfolio using Mercer TRIP model: the impact of a 2°C scenario materialization in the next 10 years is estimated to have a -0.5% impact on the annual returns"

"We have analysed our global portfolio using Mercer TRIP model: the impact of a 2°C scenario materialization in the next 10 years: the results for each asset class and sector are presented in the chart below. For the most exposed categories, representing 10% of our portfolio, we performed a security-by-security analysis based on alternative assumption on future cash flows. The analysis is based on the XYZ 2°C scenario. The table below presents the value at risk for the top holdings. This analysis did not lead to any change in our portfolio allocation due to the low probability of materialization of such a scenario in the next 5 years.

NEWS

Mark Carney (BoE/FSB) speech is likely to put emphasis on carbon risks « Risks to financial stability will be minimised if the transition begins early and follows a predictable path, thereby helping the market anticipate the transition to a 2 degree world (...) We are considering recommending to the G20 summit that more be done to develop consistent, comparable, reliable and clear disclosure around the carbon intensity of different assets. (...) Companies would disclose not only what they are emitting today, but how they plan their transition to the net-zero world of the future. »

REQUIREMENT 3: GHG ASSOCIATED WITH ASSETS HELD

- Application of "carbon footprinting" to financial portfolios relatively recent and significant questions remain:
 - Objective: Risk or financing the energy transition? ...or only communication
 - Which emissions? Companies can impact GHG directly (Scopes 1-2) and indirectly (Scope 3)
 - Materiality to risk: Lack of evidence showing either correlation with assessed risk
 - Which assets? Solutions exist for listed equity, some bonds, alternatives ad hoc



From qualitative descriptions to quantitative disclosure Illustrations for associated GHG emissions (3)



"In order to minimise carbon risks and the consequences of our activities on climate change, we calculate the carbon emissions of our equity portfolio (Scopes 1 and 2) and engage with companies responsible for excessive GHG emissions"

"The total GHG footprint of our investment portfolio amounts to X MtCO₂/year, including Scope 1 & 2 emissions. Compared with last year, our GHG footprint has decreased by 5%, thanks to engagement with companies and sale of equity from the most carbon intensive companies."

"The total GHG footprint of our investment portfolio amounts to X Mt CO₂e/year, including scope 3 emissions [see graph by sector and asset class]. At constant scope, the GHG footprint of our activities has decreased by 12% since 2010 [see graph detailing the contributions to emissions reductions]. Companies with a GHG intensity greater than twice the sectorial average are systemically excluded investment from our universe"

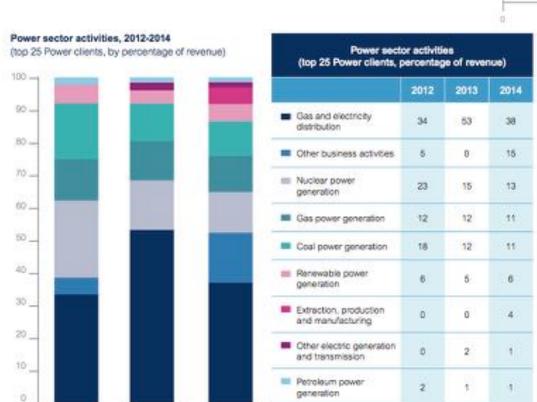
NEWS

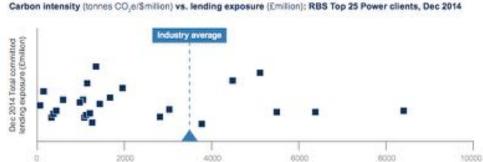
2°Investing Initiative will release a report in October showing that there is no evidence of a correlation between carbon intensity and carbon risk exposure and no rational (since there are many factors in the carbon risk equation, not only carbon intensity). Nb: most statements from investors are not consistent with our conclusions.

Best practice

Industry specific reporting

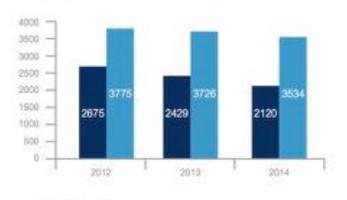
Source: RBS (banking, but same format could be applicable to investing)





Carbon intensity (tonnes CO.e/Smillion)





RBS top 25 average

Power industry average

REQUIREMENT 4: CONTRIBUTION TO THE ENERGY AND ECOLOGICAL TRANSITION (1)

- Concept recent and only partially tested on portfolios
- Wording of law implies "impact" logic, different form "exposure" logic of other elements
 - Difficulty of truly measuring "impact" (how holding, selling or purchasing a financial asset makes a difference in in the real economy)-> unlikely to be achieved for first year of requirements
- Qualitative disclosures unlikely to be meaningful given lack of standard context, terminology
- Given innovativeness of the requirement, several important questions must be considered in implementation:
 - Can targets be established using the National Low-Carbon Strategy?
 - What type of metrics are most meaningful and feasible for investors?
 - At what level portfolio level should targets be established?
 - How can such targets be communicated?

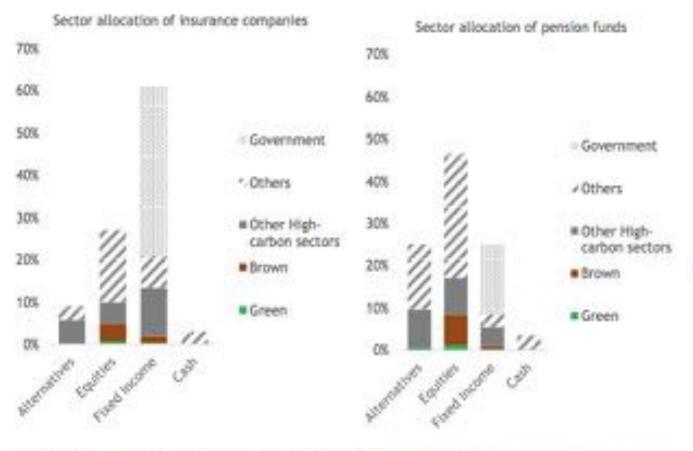
REQUIREMENT 4: CONTRIBUTION TO THE ENERGY AND ECOLOGICAL TRANSITION (2)

- Can targets be established using the National Low-Carbon Strategy?
 - Need for translation of national targets to portfolio targets
- What type of metrics are most meaningful and feasible for investors?
 - Most existing metrics are ratios of "greenness" or "brownness" to portfolio size
 - Numerator: GHG, technology exposure, "green" shares
 - Denominators: Market cap, revenue, physical units (MW, tons)
- At what level portfolio level should "indicative targets" be established?
 - Flexibility (portfolio/asset class) vs. "central planning"
 - Importance of illiquid assets
- How can such targets be communicated?
 - Bottom up: arbitrary or relative target (e.g. 3% pa)
 - Top-down: Assess alignment with decarbonization scenarios

Level	Example
General Portfolio	5% green share in the institutional portfolios (2020) Green 5% share in the equity portfolio (2020)
Sector	30% renewable in "electric utilities" shares (2020)
Sector and geography	30% renewable for European production shares "electric utilities" (2020)
Technology and Geography	30% of European production for renewable portfolio companies (2020)

Best practice: bottom up approach Current status + X% (arbitrary)

Current status of exposure to green and brown activitie in the average portfolio (Bases on sub-sector classification and sales exposure to business segments)

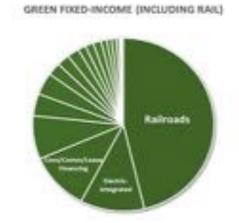


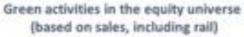
Pros

Many sectors covered

Cons

- No commonly agreed taxonomy
- Proprietary data
- Arbitrary target setting







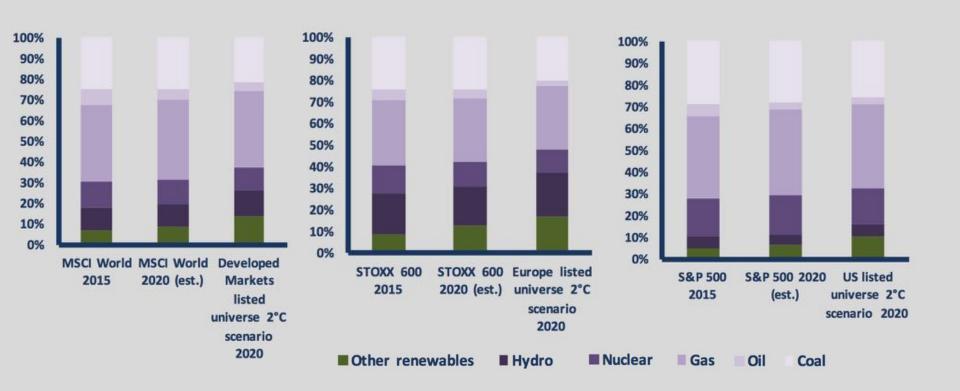
[Source: FtF, based on approach from 2" Investing Initiative 2014," Data from DataStream*, Towers & Watson 2014," Thomson Reuters 2014, "AMP Capital 2014, "MSCI ESG Research"]

Best practice: Top down approach

2D scenario technology deployment/retirement target 'translated' at equity market level

Power mix 2°C target for various equities porfolios

(comparision with the regional benchmark index)



Source: 2°Investing Initiative/SEImetrics - 2015

Pros

Direct link with 2°C target Free and public

Cons

- Picking the winners approach
- Multiple scenarios
- Limited coverage (power, energy, auto, heavy industries)

NON-TECHNICAL IMPLEMENTATION CONSIDERATIONS

- Implementing the law will drive demand for data and services, so commercial competition is an important consideration
- Specialized ESG data providers are best positioned to respond to the new demand:
 - Existing expertise, "head start" on existing metrics (e.g. carbon footprints)
 - Credit rating agencies and asset managers may have expertise but outside core business or lacking in economies of scale
- To avoid distorting competition in a small market, implementation decree should:
 - Avoid mentioning providers directly
 - Define specific implementation language in specific but neutral manner
 - Align requirements as possible with emerging standardization approaches
 - GHG Protocol / ISO
 - UNEP FI/WRI/2dII Portfolio Carbon Initiative
 - UNEP FI/CDP Portfolio Decarbonization Coalition
 - Climate Bonds Initiative

RECOMMENDATIONS FOR IMPLEMENTATION

1. Articulate the decree with technical guidelines with flexibility to evolve over time

- Indicative targets need to be updated
- Best practices evolve fast

2. Create a permanent 'observatory'

- Need for benchmarking/ranking to create peer pressure
- Need to analyze content (investment gap) to inform public policies

3. Share knowledge with other countries

France is a pilot-test for Europe (non financial directive, PRIPS), G20 (FSB Climate Disclosure Task Force) and global (global accounting and reporting standard)

4. Provide accompanying measures and incentives

- Peer pressure and risk management unlikely to drive performance improvement in the long run
- Introduction of ESG criteria in French tax breaks on investment products on the agenda



QUESTIONS/DISCUSSION

PLEASE ENTER QUESTIONS INTO CHAT BOX!