Section III - CLIMATE labeling of products for personal customers

Initial methodological approach (V1, June 2008)

This methodology has been produced by the Groupe Caisse d'Epargne and the consultancy Utopies, with contributions from a stakeholder panel representing ADEME (the French Environment and Energy Management Agency), Friends of the Earth (France), Testé Pour Vous and the WWF.

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Groupe Caisse d'Epargne:
The Caisse d'Epargne is one of France's largest commercial banks. As a pioneer in introducing SRI funds and supporting research into Socially Responsible Investing, the Caisse d'Epargne set an objective in June 2007 of applying a sustainability label to all of its products targeted to individual consumers by the end of 2008. This commitment is partof the bank's Bénéfices Futur programme, and more specifically its Responsible Marketing and Climate components.
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Utopies:
Founded in 1993, Utopies is France's leading consultancy in corporate social responsibility.
Utopies jointly developed the labeling methodology presented in this report and advised the Caisse d'Epargne on preparing and implementing the concept.
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Statement from the stakeholder panel on the methodology for banking products' labeling
Paris, Wednesday June 18th 2008.

The first steps

One year ago, the Groupe Caisse d'Epargne asked for our participation in this project. We accepted as it held promises of innovation, and provided a framework for multistakeholder debates, aiming at a solid and visible objective.

For the ADEME this labeling project for banking products is an opportunity to improve the channeling of information to individuals so as to raise their awareness about the impact of their daily actions on climate change.

For Friends of the Earth France, this world premiere is opening the way towards greater transparency of banks regarding their investments, notably towards individuals. The methodology developed also the first step towards a general evolution of banking products and services.

Testé pour Vous, who are particularly watchful of the various risks associated with each banking product, were interested in the wider approach put forward by the project.

Finally, WWF, a partner of the Group since 2003, recognized in this project the significance of the step taken.

For all stakeholders, making the methodology available to other banks is an essential component of the project: the efforts made must serve the whole banking sector.

Stakeholder engagement process

Our mission consisted in providing a fresh and external look at the project. Several methodologies were introduced to us along the project timeline. We were able to express our opinion regarding the directions to prioritize.

The main exchanges took place between July 2007 and April 2008, during a dozen meetings, in plenary session. We were sometimes called upon individually by phone or email. Our comments were heard by the project team, which took them into account when drafting the final version of the methodology. When full agreement could not be reached between us, we proceeded to vote and the outcome was always respected.

Practically speaking, we did not directly develop the methodology, but we were consulted at each stage of its development, in complete transparency. We had access to every document we asked for and every product-rating file, even though we did not systematically check the latter.

Our opinion on this first step

We fully endorse this version of the methodology, which should reach its first target: the raising of customer awareness. This version of the methodology is a good compromise between quick and easy implementation, methodological rigor and easy understanding by the bank's customers.

We are aware of the innovation brought through this pilot-project and we think that the various limits at this stage were well identified. Each of these limits is explained in the methodology, which suggest possible areas of improvements.

Next steps

The public release of the methodology applied to savings products is only a first step. We are expecting the Caisse d'Epargne to continue applying the methodology to other product ranges, to its subsidiaries, as well as to rollout the approach to its staff.

Moreover, we would like to invite other banks to join us in this adventure. We remain fully available to handle the evolution of the methodology, and accompany the process.

Cécile Ducrot-Lochard, Senior Development Manager
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ADEME

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I. The banking product-sustainability labeling project

I.1. Objectives

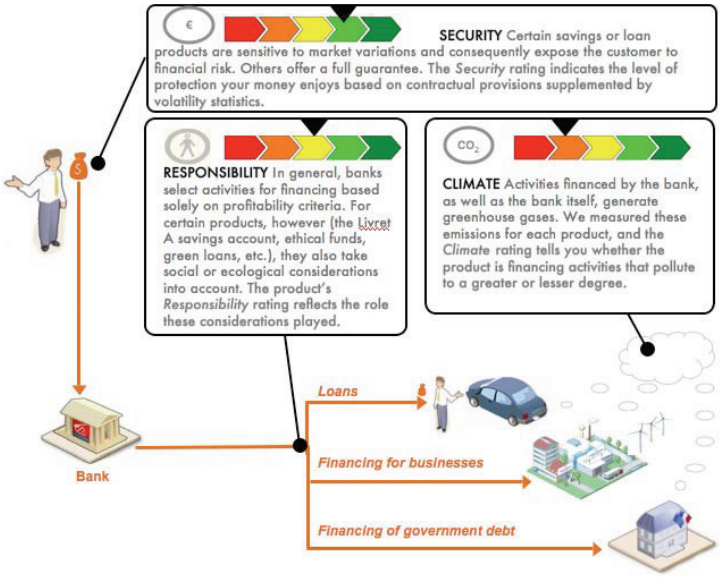
The role of a bank is to invest the funds entrusted to it by its customers in order to fund economic activities in the form of company operations, public borrowings, personal lending and so on.
The nature of these activities varies from product to product, and has significant consequences:

- For the customer, who is exposed to a varying degree of financial risk (SECURITY), as well as
- For the planet as a whole, since the activities funded may be more or less desirable from a social (RESPONSIBILITY) and ecological (CLIMATE) viewpoint.

As part of its sustainable development program, and to provide its customers with more information, the French banking group Caisse d'Epargne launched a sustainable-development labeling system for private customers in June 2008, based on these three criteria. Under this system, each product is given a rating and compared with the rest of the range. A label giving the rating and a text explanation appear in sales brochures and on the website.
All products are rated.

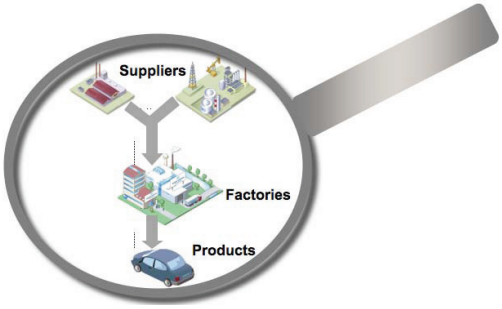
I.2. Overview of the methodology

The methodology has been developed by the Caisse d'Epargne and the consultancy Utopies in cooperation with a **stakeholder panel** (from the WWF, Friends of the Earth, Testé Pour Vous and ADEME), which assisted the project team in defining the broad outlines of the system and validating the methodology.
Panel members were consulted at every stage of the methodology's preparation process via monthly meetings and direct contact. They had access to auditable files containing all data for each product and the calculation software used.
The final elements of the methodology **will be published on the Internet** and made freely available for use by other banks.



At this stage, the methodology has been developed for use with savings products and will be adapted for use with other product families (insurance, loans, banking services etc.) by late 2008.

Focus on the CLIMATE criterion



The bank and the activities it funds all emit greenhouse gases.
Every €10,000 invested can result in the same volume of emissions as a car.

For example:
For companies, we look at the list of shares held and their respective emissions.
We then add in the emissions produced by the company's plants, its suppliers and the use of the products sold.
These calculations are based on business-sector emissions statistics supplied by Centre Info (for listed companies) and information from existing databases.
If the investment represents **1% of the funding** for the company concerned, then **1% of the company's annual emissions** will be attributed to this investment. The same procedure is applied to public-expenditure funding.

I.3. Reading guide

The assumptions and limitations of the methodology are addressed in a separate chapter at the end of this document, and are indicated throughout the text by a footnote in Roman numerals and the following symbol:

II. CLIMATE labeling

II.1. Background

- Public and consumer opinion is growing increasingly sensitive to climate change and the impact of consumer practices, as reflected in online calculators, emission-offsetting programs, individual quota schemes championed by think tanks and more.
- Environmental organizations are mounting campaigns that call on development banks to consider environmental impact, and in response banks are developing initiatives like the guidelines from the World Bank and the Equator Principles.
- The number of financial products designed to incorporate environmental criteria is multiplying to include SRI funds, green loans (with environmental conditionality) and the like.
- Carbon-labeling initiatives are emerging for consumer products, including those from Tesco GB (70,000 products), Casino France (3,000 products), E. Leclerc du Nord (50,000 products) and the UK's Carbon Trust (10+ companies that conduct testing), spurred by Jean-Louis Borloo's announcement in early October [1]that carbon labeling on 90,000 consumer products will become mandatory in three years.
- A carbon solutions provider has developed assessments of annual CO2 emissions produced by equity funds, including those from the publication of annual fund rankings and portfolio evaluation by asset managers.
- ADEME (the French Environment and Energy Management Agency) has developed the Bilan Carbone® methodology for grading direct CO2 emissions by companies.

II.2. Objectives

One major criticism of carbon reporting from experts and environmental NGOs is that it does not reflect the impact of a company's products, although these products very often make up a highly significant portion of the company's contribution to climate change.

This objection is also leveled against the banking sector: environmental experts believe that indirect emissions from banks (i.e. emissions generated by the economic activities they finance) have a much greater impact than direct emissions.

Consequently, the method proposed here is to incorporate an assessment of financed emissions in addition to the bank's direct emissions by attempting to trace the bank's use of the funds it collects.

In order to measure the climate impact of a banking product, the method draws on the banking concept of conversion on the basis of workforce resources.
Using this principle, the rating assigned to savings products can incorporate these "financed" emissions.

[1] www.liberation.fr/actualite/evenement/evenement1/283948.FR.php?rss=true.

III. Definitions

To calculate the greenhouse-gas emissions attributable to an entity:

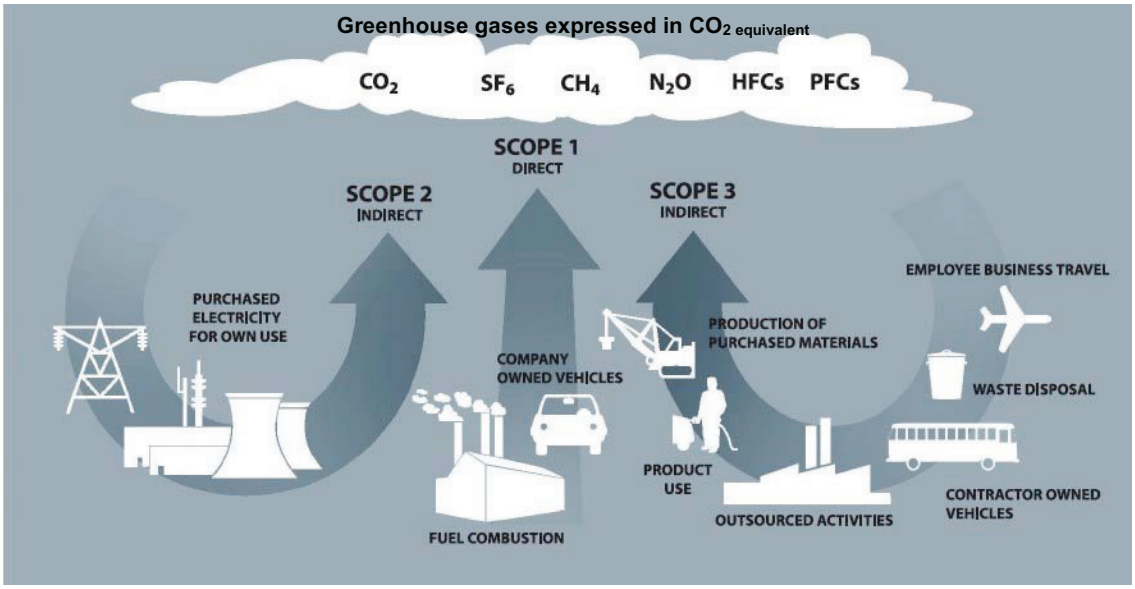
1. We calculate the **carbon balance sheet** for its activities. This includes emission inventories within **three different scopes** that correspond to various levels of influence.
2. We use the notion of a product's **life cycle** to identify emissions generated by purchases and products.
3. CO2 emissions are then allocated to various sources using the **emission factors** that are characteristic of the activities in question.

III.1. The carbon balance sheet

This is an inventory of the emissions caused by a given activity, broken down by source.
The greenhouse gases (GHGs) accounted for are primarily those that are the subject of an international accord (CO2, CH4, N2O, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride), along the lines of the reporting standards for climate impact.
The GHG Protocol (Chapters 1 and 4) and the Bilan Carbone® (pages 9-13) propose a definition of the scope of the inventory that will serve as a basis for the methodological approach used here.[2].
This inventory includes emissions generated by processes:

- ✓ *Controlled by the operator,* like production, logistics and office heating, and
- ✓ *Influenced by the operator,* through purchasing and product design.

By convention, the *carbon balance sheet*[3] refers to the inventory of all sources of emissions.



[2] Note: a caveat should be raised, however, regarding the definition given in the Bilan Carbone®, which defines the scope of the inventory as "greenhouse-gas emissions generated by all of the physical procedures that are necessary for an activity's existence." In fact, if we use this method only those emissions from processes that are controlled or significantly influenced by the organizations being evaluated are taken into account. Emissions arising from employees' housing or food consumption are not included, even though they are necessary to the activity's existence. We will therefore be adopting the approach taken in Chapter 4 of the GHG Protocol.

[3] Note: the concept generally used in France is the Bilan Carbone. This term has not been adopted in this document for two reasons: first, because it corresponds to a method trademarked by ADEME (Bilan Carbone®) that is just one method among several used in Europe for applying the GHG Protocol, and second, because the notion of a '*bilan'* (or 'balance sheet') may prove misleading to readers in a banking context insofar as the Bilan Carbone more closely resembles an income statement.
Certain items in a financial income statement will not be reflected in a carbon balance sheet, to the extent that the company exerts no influence over the corresponding activities, which include wages paid to employees, tax paid to the government and payroll charges. Finally, as with a financial income statement, entities will generate a carbon 'result' that corresponds to their emissions over a year-long cycle.

III.2. Scope

To identify emissions over which the entity under evaluation exerts either direct control or influence, the GHG Protocol draws on the notion of its "scope."[45].This scope has three levels:

- ✓ **Scope 1** includes emissions that are internal to the company and corresponds to a highly normed approach similar to the definitions used in regulatory texts.
- ✓ **Scope 2** includes emissions relating to energy produced outside the company (electricity) but consumed by the company and therefore under semi-control.
  Scopes 1 and 2 are generally included in the company's reporting.
- ✓ **Scope 3** includes all other emissions affected, for which no very precise definition is given in either the GHG Protocol or the Bilan Carbone®. In practical terms, the emissions to be included are, to a very large extent, left to the discretion of each company.
  Very few businesses provide a comprehensive accounting of Scope 3.

Scope	Scope 1	Scope 2	Scope 3
Definition	Emissions from fixed and mobile sources owned by the company	Emissions from the production of electricity and steam consumed by the entity	All other emissions affected.
Examples	Boiler Vehicles	Power consumption	• Production and end-of-life of products and services purchased. • Production of amortized goods. • Utilization and end-of-life of products sold.[6]

In this methodology, each scope is defined with reference to Chapter 4 of the GHG Protocol, in particular page 30 with regard to Scope 3.
Emissions included in Scope 3 must meet one or more of the following criteria:

- ✓ Their CO2 impact must be significant by comparison with Scopes 1 and 2.
- ✓ They must be perceived as significant and related to the stakeholders' activities (i.e. in the opinion of the panel).
- ✓ It must be possible to measure these emissions in a way that isolates the contribution by the bank's product or policy.
- ✓ They must have a link to the financial risk tied to the product or activity.

III.3. The life cycle of a product or service

The life cycle of a product includes all "consecutive and interlinked stages of a product system, from raw-material acquisition and generation of natural resources to final disposal."[7].
It corresponds to the notion of a value chain applied to flows of energy and materials.
For many products, their principal climate impact derives from the materials mobilized for their production or during their use.
For example, if an automobile's production accounts for 500 kg of CO2 equivalent, the use of the automobile may represent several metric tons of CO2 annually, depending on the model.

III.4. Emission factors and uncertainties

To catalogue an activity's emissions, we use emission factors that allow us to allocate emissions to flows expressed in volume of activity.

[4] This term is usually translated into French as "périmètre." However, the English term is being used in the French document to prevent any confusion with other references to a "périmètre."
[5] This concept is similar to that used in the ISO 14064 standard and the ISO materials drawn from the Bilan Carbone®; see the Methodological Guide on page 85.
[6] When applying this principle to a retailer, emissions tied to the production and use of all products sold, even those produced by third parties, must be included.
[7] This definition was adopted by the ISO 14040 standard on life-cycle assessment.

Emission factors include a fairly significant degree of uncertainty arising from the accuracy of the data on which they are based.
In general, the factors given for an expenditure or income amount are less precise than the factors given for physical amounts (kilos of material, kWH of energy etc.), and may involve uncertainty with respect to the exchange rate used or the inflation or eco-efficiency of a market when drawn from old data
Any uncertainties arising from assessments should be taken into account when comparing different funds or products in order to assign them a score.

This point will be addressed in more detail in a later version of the document, when scales for use in "ranking" the products will be proposed.

IV. Methodological principles

IV.1. Actual emissions

The principle adopted:

The CLIMATE rating is based on actual emission volumes.[i]

In order to be able to combine or compare carbon intensity for different asset classes, the principle used is to quantify the emissions from financed activities as an absolute value.

Using this method, we can combine the emissions obtained for different asset classes and thereby propose a rating for diversified portfolios (like mutual funds that combine equities and bonds, and the bank's asset portfolio).

In order to determine the "financed" scope to be taken into account, maximum attention should be paid to what is being financed.
For example, the carbon intensity of a property loan is measured on the basis of the actual emissions of the housing purchased.
In the case of a claim on a business (a loan or bond), precise information on the investments actually financed may be difficult to obtain, in which case the company's full scope of activity will be used to estimate the emissions related to that claim.[ii].

IV.2. Emissions on an annual basis

The principle adopted:

All emissions are calculated on an annual basis.

In order to have a standard measurement of the various emission sources related to the bank's activity and the activities and products it has financed, all emissions will be calculated on the basis of:
- One year of activity by a company or central government, and
- One year of use of a financed product (housing, vehicle, household equipment etc.).

This year of activity or use will be examined with respect to:

- A one-year deposit for savings products.
- One year of financing for loan products.
- One policy year for insurance products.
- One year's use of banking services.

By adopting a standard of this kind, we can evaluate the various banking products on an identical basis and capitalize on a full range of resources (including annual reports and environmental databases) in order to make the calculations necessary for arriving at a rating.

IV.3. Emissions across the entire value chain and life cycle

The principle adopted:

Financed emissions are evaluated with reference to the entire value chain of the financed activity or product (i.e. its life cycle).

For each financed activity, GHG emissions will be calculated by applying simplified versions of internationally recognized calculation standards, across the most comprehensive scope possible regarding the activity.

Thus, the greenhouse-gas emissions taken into account for a given activity will include emissions that were necessary for the activity (upstream emissions), those of the activity itself (direct emissions) and those prompted by the activity (downstream emissions).

So, for example, the WBCSD/WRI GHG protocol will be applied for businesses and similar entities (governments, associations), incorporating:

- Emissions tied to purchases and investments required for the activity.
- Emissions from the activity tied to the company's energy consumption and specific processes.
- Emissions arising from the distribution, use and end-of-life of the activity's products.

When financing involves a product (notably in the case of loan products), the calculation principle used in the ISO 14021 standard for life-cycle analyses will be applied, with attention to:

- The emissions required in order to extract, process and assemble the product's components.
- The emissions required in order to transport and market the product.
- The emissions tied to the use and end-of-life of the product.

In order to estimate these emissions, we will draw on the following resources:[iii]

- Each company's environmental report (for Scopes 1 and 2 in particular).
- Each company's response to the Carbon Disclosure Project (Scopes 1 and 2).
- National statistical databases for the sector.
- The various life-cycle assessment databases (for purchases, use and end-of-life in Scope 3 in particular).
- Economic and environmental I/O databases.

IV.4. "Bank" and "financed" emissions

The principle adopted:

The CLIMATE rating is an aggregate of two major types of emission: bank emissions and financed emissions.

- By "bank emissions" we mean emissions by the bank and its partners for the purpose of marketing and managing the product:
    - For all products (savings, loans, insurance and banking services), these "direct emissions" include all emissions generated by the consumption of energy, products and services as needed in order to market and manage the products.[8]
- "Financed emissions" refers to emissions from activities financed by the bank and its partners as part of their use of the funds they collect:
    - In the case of a savings product, the rating reflects the greenhouse-gas emissions of activities financed by the funds collected (financing for major corporations, governments, SMEs, entrepreneurs and individuals through loans and the purchase of bonds or shares).
    - In the case of a loan product, the rating represents the greenhouse-gas emissions of the goods financed by the funds that were lent.
    - In the case of an insurance product, the rating will refer to the greenhouse-gas emissions of activities financed by the investments made by the insurer using reserves for outstanding claims.

For a comprehensive overview of emissions sources included in "bank emissions," please refer to the description provided in the appendix (cf. VI).

For savings, loan and insurance products, "bank emissions" are minor in comparison with "financed emissions." Consequently, "bank emissions" for these product families will be estimated according to a breakdown of the bank's carbon balance sheet or that of its partners, using the workforce allocated to each banking product as the determining factor in the breakdown.

Orders of magnitude for Livret B savings accounts administered by savings banks:

The Livret B involves approximately 300 full-time equivalent (FTE) employees for about 1 million accounts managed (and some 100,000 new accounts opened in 2006).Source: Monaco database.

According to the Bilan Carbone™ conducted by the savings banks in 2007, the emissions factor per FTE is on the order of 7 metric tons of CO2 equivalent/FTE/year.

[8] For insurance products, "bank emissions" include emissions generated by services covered by the insurer when claims are filed (repairs, visits by experts etc.).

Depending on the rule defined, the bank is estimated to generate (7*300/1,000,000) metric tons of CO2 equivalent annually per Livret B account managed, i.e. 2 kg of CO2e per year.

The financed emissions for this same Livret B account will be approximately 1 metric ton of CO2e/year for each 10,000 euros invested over the course of a year.

Note: the concept of financed emissions does not apply to banking service products that can be considered transaction support (e.g. Carte Bleue debit cards, securities accounts and online banking services).
The rating of these products will be based solely on the bank's direct emissions, which will be assessed in more detail than with other product families by analyzing the emissions tied to their production, marketing and management.

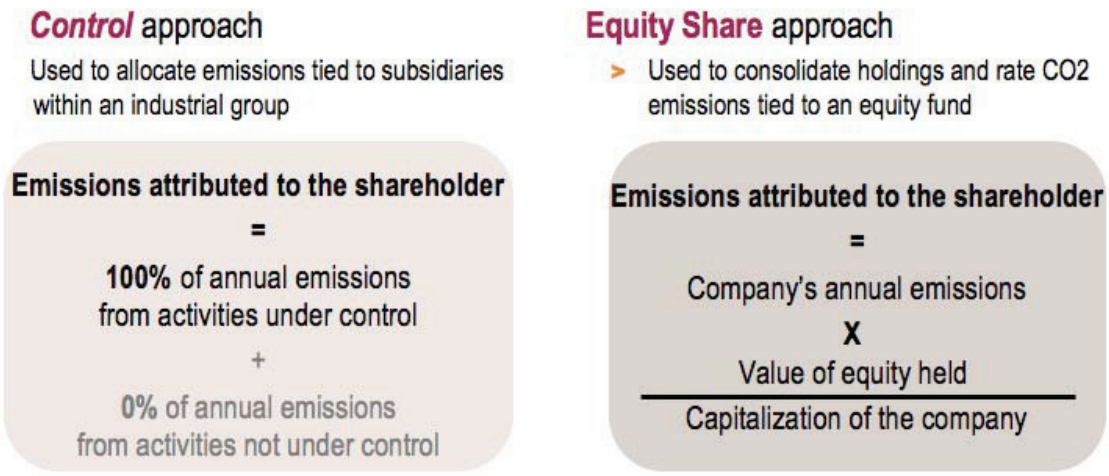
IV.5. Financed emissions: the Carbon Consolidation rule

This section describes the methodological adaptations that have made it possible to define a rule for allocating the emissions of a financed activity to the investment or loan that makes the activity possible.

IV.5.1. Methodological basis

The GHG Protocol proposes two approaches for consolidating the greenhouse-gas emissions[9] of a group's subsidiaries:

- ✓ The Control approach: 100% of a facility's emissions are included if it is under the group's control.[10]
- ✓ The Equity Share approach: the group consolidates facility emissions based on its economic interest in the operation.[11]



Both the GHG Protocol and the Bilan Carbone® leave the choice of approach to the evaluator's discretion, but the equity share approach is the most pertinent for the financial sector.[12]

The equity share method is used by a number of asset managers to assess equity portfolios. CO2 emissions derived from equity in the companies that make up the portfolio are added together to calculate the fund's annual emissions. In other words, the companies are "consolidated" as if the fund were a holding company for which the subscriber would be the shareholder.

We intend to extend this logic to other financing methods.

[9] See Chapter 4 of the GHG Protocol and page 17 of the *Designing a Customized Greenhouse Gas Calculation* guide (WRI).
[10] This category is subdivided into operational control (the group is responsible for managing the facility) and financial control (the group controls the governing bodies).
11 In most cases, the percentage of economic interest is the same as the equity share in the entity held by the group.
[12] See page 49 of the Bilan Carbone methodological guide and page 21 of the *Hot Climate Cool Commerce* guide (WRI).

IV.5.2. The "credit share" approach

Strict application of the equity share approach makes it impossible to define a greenhouse-gas emissions counterpart for the role of loan-based financing (bonds, lines of credit). To date, the authors have not identified any method of determining the share of emissions to be attributed to a lender. All emissions are assigned to the shareholders (both majority and minority).

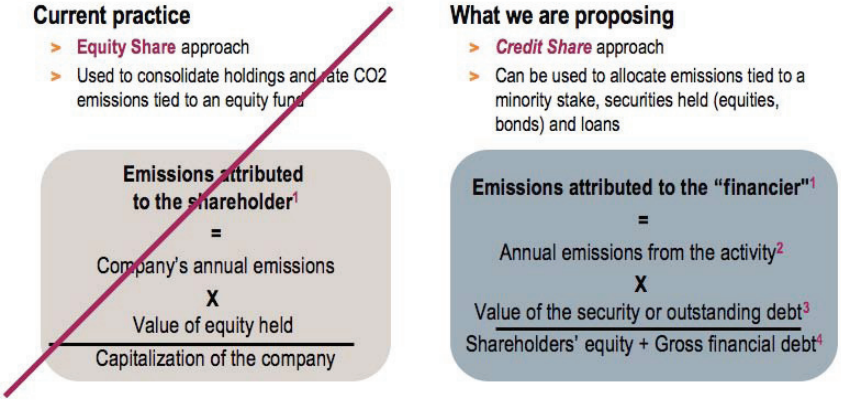
Nonetheless, environmental NGOs, regulatory incentives and certain financial institutions all recognize the lender's power to influence the financed entity's CO2 emissions. The Bilan Carbone® methodological guide poses the problem in these terms:
"The use of sold products will pose a significant methodological problem. In theory, emissions from the operation of products purchased by means of loans should be included. Among consumer loans, those used for the purchase of a car, for a home that lacks insulation or for travel will necessarily carry an added emissions burden. This is a typical scenario wherein an additional extraction may be created in order to distinguish between emissions directly attributable to the bank's day-to-day operations and those attributable to its customers' buying habits. The bank's customers may borrow the same amount while still reducing their emissions, simply by altering the nature of the purchase funded by the loans in question."[13]

The principle adopted:

The equity share approach, which applies to financing via possession of shareholders' equity, is extended to loan-based financing (bonds and lines of credit).

By convention, this principle is described as the "credit share approach."

In other words, in addition to the equity percentage represented by the shares held, this approach also considers the share of investments or claims held on total *shareholders' equity + bonds + debts to loan institutions* appearing as liabilities on the financed entity's account balance. [iv].



1. This may involve a bank, through the use of its own funds, or an individual owning shares in the company (either directly or via a mutual fund). The financing may involve an equity interest or a loan.
2. The activity may be a company or the use of an item.
3. Securities are expressed at face value.
4. Only those debts financed by banks and securities are included. Supplier and tax debts do not appear, since they do not accumulate interest. Shareholders' equity is expressed at book value.

IV.5.3. Adjusting the share extended to various types of financing

The credit share approach can be used to decide on a ratio for allocating GHG emissions when companies are financed via a loan or the acquisition of securities (equities and bonds).

In what follows, we describe how this approach can be adapted to financing for government bodies and to the financing of goods through credit.

Application to government financing

For government accounting, we cannot think in the same terms of shareholders' equity and financial debt that we use for companies to arrive at a value for financed assets. [v].

[13] Bilan Carbone® v5.0 (p. 106).

As shown in the table below, government accounting does not show shareholders' equity among balance sheet liabilities:

Assets	Liabilities
Non-financial assets (NFA)	
Financial assets (FA)	Financial liabilities (FL)
	Net value = (NFA+FA-FL)
TOTAL: NFA + FA	**TOTAL: NFA + FA**

Thus, when applying the principle of equity share allocation to government financing, we will use the following aggregates to indicate the government's assets: *Non-financial assets + Financial assets or Financial liabilities + Net value.*
The ratio for allocating a government body's emissions to a security issued by that body is as follows:

Face value of the bond/(Financial assets + Non-financial assets)

Or

Face value of the bond/(Financial liabilities + Net value)

It is important to note that in this case, contrary to the logic applied in the business world, the emissions of the GHG-emitting body are not 100% allocated across all of the securities issued. In one sense, a portion of the government body's emissions is assigned to the country's citizens, who are then considered "owners" of the body's assets at their net value.

Given current practices in government accounting and international reporting, no reliable statistics are available on non-financial government assets.[vi]. We have therefore been forced to prepare estimates for approaching the ratios. These estimates are detailed in the document on emission factors.

The following consolidated emissions by government bodies must be incorporated within the scope of the rating:
• Direct and indirect emissions tied to the government body's activity (Scopes 1, 2 and 3).
• Direct and indirect emissions of companies in which the government body holds an interest.

General government emissions:

In contrast to emerging practices in the corporate world, governments and government bodies do not report on their greenhouse-gas emissions.
As a result, these emissions will be estimated on the basis of total government expenditure, which includes both consumption expenditure and investment expenditure by governments.
Ideally, these expenses will be estimated by function and assigned intensity factors that reflect the sector and the country's economy.

Emissions attributable to economic activities held wholly or in part by the central government:

In this case, the public sector will be considered a holding company and assigned the emissions from activities it holds, in accordance with the credit share allocation rule. The emissions taken into account will be those defined earlier for company financing.

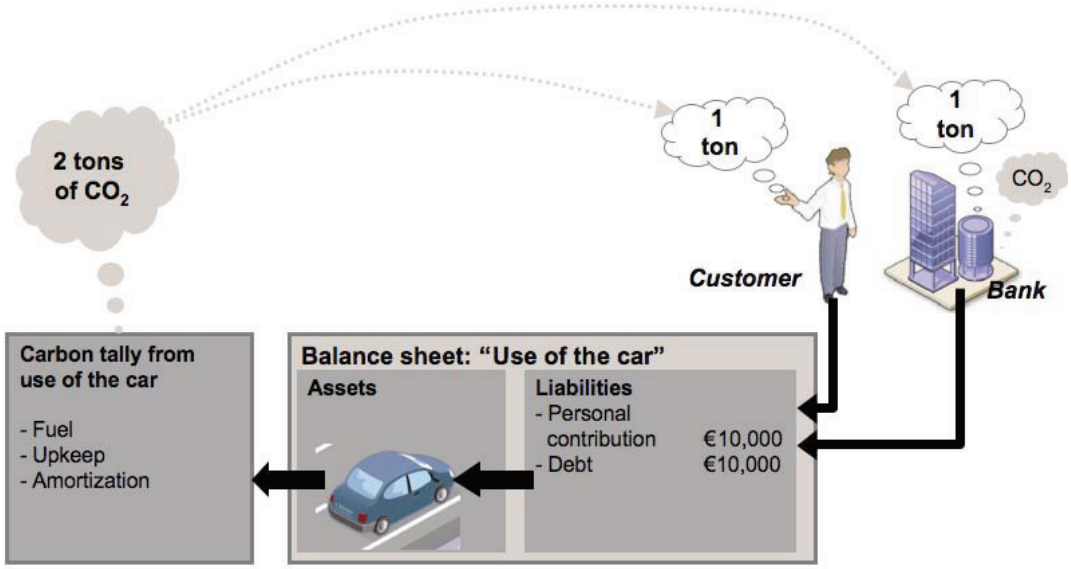
In the absence of detailed information on the exact stake held by the government, we can use the value of the financial assets in the government's possession and assign them the emission factor for a diversified securities portfolio.

Application to loan-based financing of goods

For businesses, the total "shareholders' equity + financial debt" represents the value of the assets financed. When the purchase of a product is financed via a loan, the value of the financed assets is directly represented by the product's acquisition value.

This logic applies to property loans and consumer loans used to purchase durable goods (automobiles, household equipment etc.).

Note that this equivalence is apparent if individuals are viewed as microbusinesses:



The allocation ratio is thus expressed as *Outstanding debt/Acquisition value*.

In accordance with the general principles governing the methodology, the emissions associated with various goods extend across their entire value chain.

For further action:

It is possible that a portion of any consumer credit extended will not finance the acquisition of durable goods by the bank's customers, but will instead serve as a cash advance enabling those customers to finance their routine spending.
This scenario will be described in further detail in a subsequent version of this document.[vii]

IV.6. Summary

The table below shows the major sources of emissions and the emission-allocation rules for the principal asset classes incorporated into the methodology. Note: derivatives (options, futures etc.) have not been incorporated into the current version of the methodology.

Asset class	Target of financing	Credit share	Scope of emissions	Scope 1	Scope 2	Scope 3
Equities	Companies	Face value/(Shareholders' equity + gross financial debt) [at book value]	Company operations	Gas and/or fuel-oil combustion Special company processes	Production of electricity and steam consumed	Products and services purchased Use of products sold
Bonds	Companies					
Unallocated credit	Companies					
Bonds	Government bodies	Face value/(Financial assets + Non-financial assets)	Total spending by the government body	Gas and/or fuel-oil combustion Emissions tied to waste management	Production of electricity and steam consumed	Products and services purchased Investment in buildings and infrastructure
			Operation of businesses held	Gas and/or fuel-oil combustion Special company processes	Production of electricity and steam consumed	Products and services purchased Use of products sold
Property loan	Housing	Debt held/Acquisition value	Use of the housing	Gas and/or fuel-oil combustion	Production of electricity and steam consumed	Emissions tied to the production of fuel oil and/or gas Construction-related emissions Materials production and end-of-life
Automobile loan	Automobile	Debt held/Acquisition value	Use of the vehicle	Fuel combustion		Fuel production Vehicle manufacture Vehicle end-of-life Vehicle upkeep
Household equipment loan	Equipment	Debt held/Acquisition value	Use of the equipment	Gas and/or fuel-oil combustion (if any)	Production of electricity consumed	Goods production and end-of-life

IV.7. Double counting

Integrating the product's procurement and use phases into the emissions inventory leads to problems of double counting.[viii].

Double counting may be a factor:

- In emissions upstream of the activity (procurement and purchasing). For example, this will be the case with a cement manufacturer's emissions, which will be counted as its own production emissions but also as emissions by other companies during their purchasing and investment phases.
  The principle of neutralization involves identifying, within a given portfolio, all mutual exchanges between companies being rated and removing them from the companies' total emissions.
- In the product use phase. For example, emissions generated by use of an automobile manufacturer's products coincide, in part, with an oil company's use emissions: both include vehicle fuel combustion in their product use phase.
  In this case, the principle of neutralization will dictate that, rather than combining their emissions, the maximum value from the use phases of two different companies should be retained.

V. The rating of banking products

V.1. Savings products

Savings products can be divided into three groups:

- Savings accounts and similar products.
- Mutual funds.
- Life insurance products.

The CLIMATE rating for these products will include the bank's own emissions and emissions financed by the sums collected.

For all three product families, the bank's total emissions (e.g. its Bilan Carbone™) are proportionally allocated to a product based on the workforce assigned to that product.

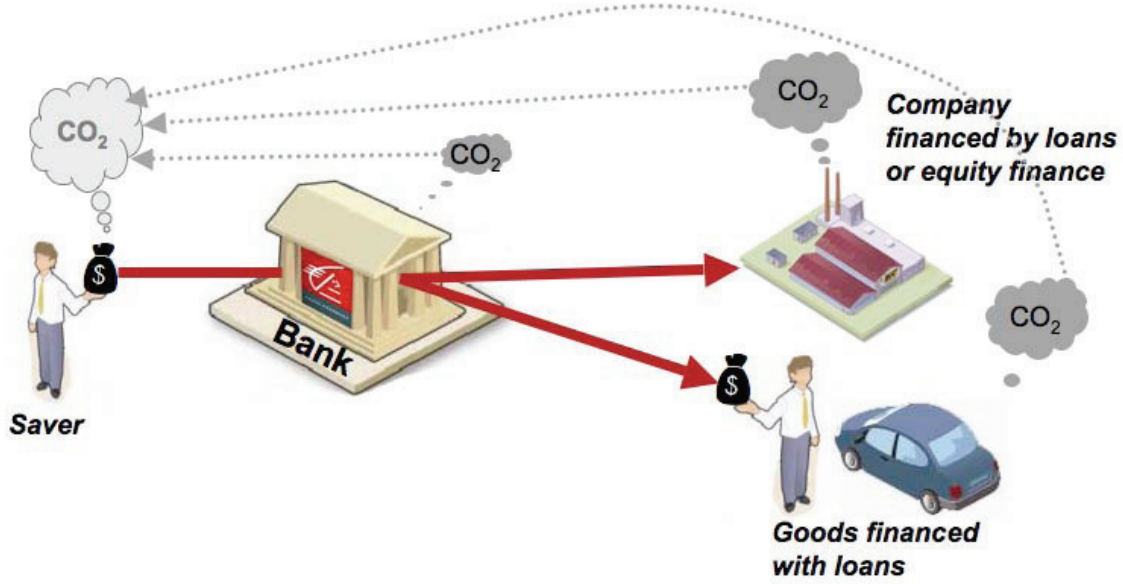
Emissions financed by the bank are calculated in accordance with specific rules for each of the three major product families. These rules are detailed below.

V.1.1. Savings accounts and similar products

Sums collected through savings accounts constitute a portion of the resources posted to a bank's liabilities, principally within customer resources (as well as for certain specific products within shareholders' equity or financial resources).

The bank converts its resources into applications (loans to customers, interbank loans, transferable and non-transferable investments) and thereby finances economic and private activities.

Thus, the sum held in a savings account will be assigned emissions from activities financed by the bank's assets in proportion to its contribution to financing that asset (apart from central resources).



As a result, an assessment of the emissions from the bank's assets must be available. This figure is calculated as the total emissions attributable to each component of the bank's assets (excluding central applications, which are treated separately, and tangible and intangible fixed assets, for which the emissions are already included among the bank's emissions).

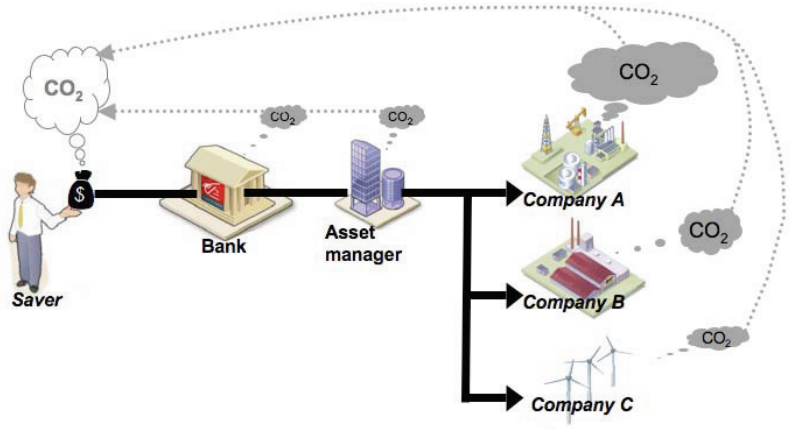
The emissions generated by each item are calculated by applying the principles described in the introduction to this document (the credit share principle and life cycle/value chain).

Setting aside technical accounts, the bank's balance sheet can be summarized as follows:

Assets	Liabilities
Fixed assets: • Share investments • Tangible and intangible fixed assets Customer applications: • Real-estate loans • Consumer loans • Loans to professionals • Loans to businesses Financial applications: • Interbank loans • Transferable investments • Non-transferable investments	Shareholders' equity, including: • Shares held by customers Customer resources: • Sight deposits • Term accounts • Non-centralized portions of regulated products Financial resources: • Interbank borrowing • Borrowing from customers
Central applications via savings funds held by the Caisse des Dépôts: • Loans for social housing and urban policy • Funding for SMEs (via the OSEO agency and regional development companies) • Transferable investments	Centralized customer resources: • 100% of Livret A tax-free savings accounts • Portion of Livret B tax-free savings accounts • Portion (85%) of LEP *(Livret d'épargne populaire)* savings accounts • Portion (minimum 6.5%) of LDD *(Livret de développement durable)* sustainable development savings accounts

Emissions financed by the centralized resources of the Caisse des Dépôts will be estimated on the basis of the activities financed by its Savings Fund, in proportion to their contribution to the fund's liabilities. Particular use will be made of the data provided by the Caisse des Dépôts in its annual report on the savings fund.

V.1.2. Mutual funds



The mutual fund inventory (i.e. the fund's asset items) is used to calculate emissions financed by savings invested in mutual funds.

Each item will be evaluated on the basis of the emitting company's or government body's emissions for that asset item, under the credit-share rule.

Once all of the lines have been evaluated, double counting is neutralized to yield all of the annual emissions financed by the fund.

Underlying funds:

Mutual funds can invest a portion of the funds in mutual fund securities. The actual percentage is governed by regulations specific to the type of mutual fund.

In order to limit cumulative rating, the rule that has been adopted is that, if the fund held does not exceed 3% of the rated mutual fund's assets, its carbon intensity may, under the methodology, be estimated using the carbon intensity for a fund of the same type (same asset class, same geographical area, same type [general, sector-specific] and so on).

In each case, a fund's carbon intensity will be considered "label-able" beyond a coverage rate of 85% of the fund's assets, on the condition that no component in the remaining 15% suggests the possibility of markedly higher carbon intensity.

Thus, in order to label a mutual fund, the following information must be available:

- A list of the assets held, and for each asset:
- The book value of the bonds or equities held.
- The book value of the company's shareholders' equity or, for a government body, its financial and non-financial assets.
- The company's gross financial debt.

V.1.3 Life insurance

Life insurance products are wrappers that generally include a euro fund and several unit-linked contracts.

Each policyholder can define his or her own investment profile, and there can be no country-wide standard label that represents every investment profile.
The rating to be used on the label will be based on a typical investment profile that allocates the savings collected among several unit-linked contracts that are representative of the actual distribution of amounts outstanding.

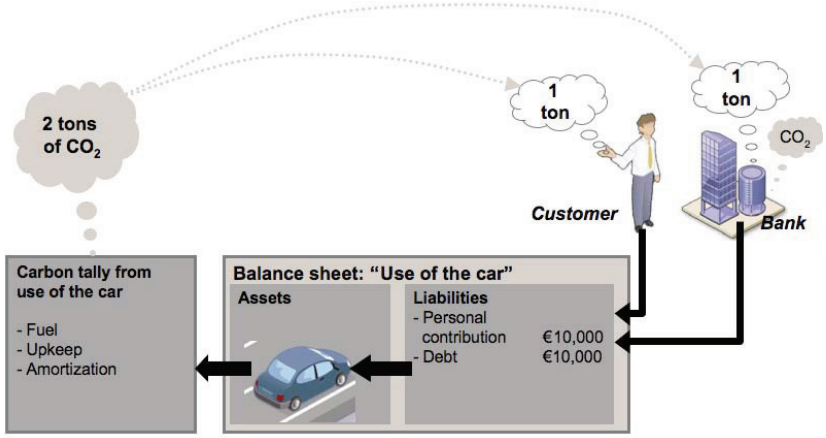
The CLIMATE rating for the life insurance product will then be the average climate rating of each unit-linked contract used, weighted to reflect the distribution of amounts outstanding used for the standard profile.

Thus, in order to label a life insurance product, the following information must be available:

- The distribution of amounts outstanding across the various vehicles.
- The items needed for rating the vehicles (cf. mutual funds).
- The workforce allocated to the product.

V.2. Loan products

For loans granted to an individual, the financed emissions will depend on the item financed by the loan.
The task will be to determine the annual emissions generated by use of the item (for example, in the case of a car, the emissions generated by the vehicle's fuel consumption, upkeep and amortization).
Using the credit share approach, the share of the emissions allocated to the sums loaned by the bank will be indicated by the ratio of debt to acquisition value.



Emissions tied to the financing cycle for loan products will therefore depend on the items financed. It will not be possible to have a standard country-wide CLIMATE label that is appropriate to all loan-financed projects.

The rating will be based on a typical example that is representative of the average loan lent by the bank.
This typical profile may be based on national averages (e.g. for an auto loan, on the price and emissions of the "average" vehicle sold in France).

Advisers or customers themselves can calculate the emissions that are specific to the item actually being financed using an online calculator. This will provide:
- A customized label that can be printed for the customer.
- Maturing data that can be incorporated into the bank's carbon use account.

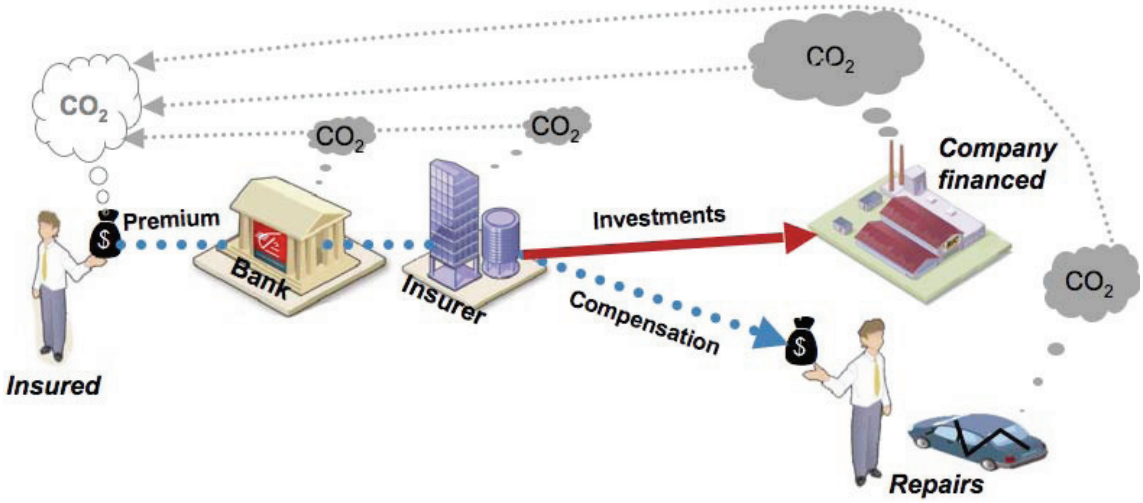
This calculator can also include additional functions with which to incorporate the impact of energy consumption by the item (house, car) into its overall cost, and thus the level of risk to which the customer is exposed.

Thus, in order to label a loan product, the following information must be available:

- The nature of the items financed.
- The bank's workforce allocated to the product.

V.3. Insurance products

With regard to insurance products, the premium paid by the policyholder finances two items:
- A portion of the indemnity for damages incurred by the insured (and thus the emissions associated with repairs to vehicles or homes, medical care etc.).
- The activities financed with the funds invested by the insurance company.



Accordingly, apart from emissions by the bank and the insurer, the primary forms of emissions are as follows:

- Emissions caused by claims:

  These are emissions prompted by claims, from the time the claim is acknowledged by the insurer until the file is closed. These do not include the personnel costs associated with claims management (e.g. call-centre personnel), since these personnel are already included under the insurer's direct emissions.
  Emissions associated with claims will depend on the claim itself, the coverage in place and the services provided. For example, in the case of automobile insurance, emission factors relating to repairs, loaned vehicles and so on will be assigned to the claims. For health insurance,

emission factors relating to products (medications, equipment and accessories etc.) and medical care (doctor visits, surgical procedures, hospitalization etc.) covered under the policy will be assigned to the reimbursed expenses.

- Emissions financed by the insurer's investments:

  This refers to the percentage of emissions by companies that are financed by the insurer's investments using its reserves for outstanding claims. These emissions will depend on the frequency of claims with regard to policy guarantees, the insurer's payout policy and the components that make up the company's overall assets.

Note: our concern here is with emissions financed by premiums paid by the policyholder. Emissions arising from use of the item (an automobile, for example) are not included, since they are not financed by the insurer.

Thus, in order to label an insurance product, the following information must be available:

- The average premium paid.
- The components of a standard contract (average level of coverage).
- An estimated carbon balance sheet for the insurer and the bank (CO2/workforce).
- The average number of employees per contract and by type of activity (sales, administration, claims management).
- The load factor.
- The claims rate.
- The ratio of sums paid out yearly to annual premiums.
- The probability of claims.
- The list of procedures and average claim costs.
- The composition of the insurer's assets.

VI. Appendix: Calculating the carbon balance sheet[14]

The tables below provide an overview of the emissions sources to be taken into account when calculating the greenhouse-gas emissions of a bank branch, using the method proposed by the GHG Protocol (or the Bilan Carbone®) without incorporating emissions related to financing.

The principal corresponding emission factors for a banking network located in France may be obtained from ADEME (refer to the Bilan Carbone® Emission Factor Guide). Additional sources of information are indicated in the tables. However, users are free to employ more precise data and specify their sources in the published document.

Energy consumption

This refers to energy consumed by branches and head offices. Internal information may be based on supplier invoices.

Emissions source	Internal information needed	Source for emission factors	Emissions taken into account		
			Scope 1	Scope 2	Scope 3
Boilers	To be completed	ADEME	Emissions tied to gas and/or fuel oil combustion		Emissions tied to fuel production
Air conditioning systems	To be completed	ADEME	Emissions tied to fluid leakage		Emissions tied to fluid production
Electricity and steam consumption	To be completed	ADEME		Emissions tied to production and line losses/leaks	

Internal transport

This refers to emissions arising from employee travel for professional purposes. Information will be needed on the vehicles in question and the distances traveled.

Emissions source	Internal information needed	Source for emission factors	Emissions taken into account		
			Scope 1	Scope 2	Scope 3
Savings bank auto fleet	Composition and mileage	ADEME	Vehicle emissions		• Emissions tied to fuel production
Auto leasing	Composition and mileage	ADEME		Vehicle emissions	
Employee vehicles	Mileage (expense claims forms)	ADEME		Vehicle emissions	
Taxis	Purchases in euros	Module developed by the savings banks (to be attached)			• Vehicle emissions • Emissions tied to fuel production
Trains	Journeys				Emissions tied to electricity production
Planes	Journeys				• Aircraft emissions • Emissions tied to fuel production
Employee travel between home and work	To be completed	To be completed			• Vehicle emissions • Emissions tied to fuel production

General purchases and amortizations of fixed assets

This refers to emissions arising from purchases by branches and head offices. The necessary information will generally be available from the departments responsible for purchasing and property-asset management. They correspond to the purchases and amortizations appearing in the balance sheet.

[14] Branch offices, headquarters of the *Caisses Régionales* and the *Caisse Nationale des Caisses d'Epargne.*

Emissions source	Internal information needed	Source for emission factors	Emissions taken into account		
			Scope 1	Scope 2	Scope 3
Branch buildings	Number of branches	Elan study			Emissions tied to production and end-of-life
Head office buildings	sq.m per building type	ADEME			Emissions tied to production and end-of-life
Computer hardware	Number of hardware items	ADEME			Emissions tied to production and end-of-life
Consumption of supplies	Purchases in euros	ADEME			Emissions tied to production and end-of-life
Consumption of services	Purchases in euros	ADEME			
Shipments by post to customers	To be completed	To be completed			• Vehicle emissions • Emissions tied to fuel production
Production of sales materials	To be completed	ADEME			• Emissions tied to the production of materials (paper in particular) • Emissions tied to the end-of-life of materials

Consumption of distributed products and services

This table includes all emissions occurring at the customer's site that are required for consumption of the products and services. Appropriate studies should be conducted to determine the volumes in question.[15].

Emissions source	Internal information needed	Source for emission factors	Emissions taken into account		
			Scope 1	Scope 2	Scope 3
End-of-life of sales materials	See table above	ADEME			• Emissions tied to the end-of-life of materials
Customer travel[16]	To be completed	ADEME			• Vehicle emissions • Emissions from fuel production
Correspondence and remote orders sent by customers	Orders via the Internet, telephone and post	To be completed			• Emissions tied to the production of electricity used by telecommunications • Emissions tied to the production and end-of-life of correspondence and deliveries by post

In practical terms...

This step is currently being carried out by the Sustainable Development and General Interest Department: Bilans Carbone® have already been conducted by several regional Funds. However, the interim versions of these Bilans Carbone® do not include every source of emissions (notably customer travel). Additional work will be needed.

To be developed...

An application guide for handling travel between home and work, the purchase of services by the bank and emissions tied to the consumption of products and services by customers.

➔ **Result:**

The carbon balance sheet for a branch (excluding the impact from financing).

Order of magnitude: 5-8 metric tons of CO_2 equivalent per employee per year (excluding consumption of products)

[15] The sources shown below will not be included in the Bilan Carbone® published by the Caisses d'Epargne in 2008.
[16] Will not be included in the Bilan Carbone® published by the Caisses d'Epargne (since there is no major tool for action), but a special study is being planned by the Geomarketing department.

VII. Assumptions and limitations of the methodology

[i] **Assumptions and limitations: actual emissions**

In order to ensure that measurements across the various asset classes comprising a banking product can be aggregated, the methodology is based on tallying the actual emissions of the financed underlying products.
With this method, it is impossible to take into account any emissions prevented by the company's activity (e.g. an insulation manufacturer will continue to generate emissions) or emissions prevented by the company's high level of efficiency in comparison with industry peers (a "good" cement manufacturer will continue to generate considerably higher emissions than a "bad" service provider).
Moreover, it is important to emphasize that when we apply this notion of prevented emissions, we run into another, more practical problem, as will be described below: there is currently no consensus regarding the methodology for tallying prevented emissions, nor is there any reliable, objective means of measuring associated volumes.

It should be noted that the carbon intensity of an activity does not necessarily tell us anything about the activity's financial exposure to the "carbon/climate" constraint (development of regulations, meteorological effects prompted by climate change, changing consumption patterns and changing markets, for instance).
As a consequence, the climate rating does not convey anything to investors who wish to limit their exposure to the financial risks posed by climate change.

[ii] **Assumptions and limitations: purpose of the financing**

In the case of companies and central governments, the precise purpose of the financing is not routinely identified and is treated as financing of the business or activity by the organization making the investment. Thus, the bond for a fossil-fuel energy provider will be included in the financing of its activity, even if the funds raised will be used, for example, to finance a solar-energy plant as part of a diversification policy.

[iii] **Assumptions and limitations: calculation estimates and biases**

a. Uncertainties

The databases and studies used when calculating emission factors and a company's carbon intensity do not routinely draw attention to the uncertainties inherent in these measurements.
This is particularly true of Carnegie Mellon's EIOLCA database, which was used by the service provider that evaluated "corporate" asset portfolios in the first wave of ratings and which is also used to assign emission volumes to government expenditures when rating government investments.

b. Macroscopic estimates

Emission volumes for certain assets have been estimated on the basis of averages, since neither itemized information nor the necessary tools are available. For example, the emissions for equity and investment holdings by governments (government bonds) and savings banks (balance sheet reserves) have been estimated on the basis of averages obtained by the Centre Info for assets of that type.
Similarly, emissions connected with outstanding property loans, consumer credit, loans to SMEs and social housing loans, for example, have been estimated on the basis of country-wide sector statistics that are occasionally quite extensive.

c. Exchange-rate effect

Estimates of emissions by governments and businesses are based on metrics expressed in dollars.
As a result, these metrics introduce an exchange rate bias that cannot be eliminated unless expenditures and income are available in each local currency.

d. Timeliness of data

Several emission factors are based on data that become available at various times. In government accounting, for example, indicators regarding the rate of health-care expenditure, social-welfare spending and military spending are not systematically submitted to the OECD and the World Bank at the same time.

Similarly, certain "rules of three" applied when calculating emission factors are based on statistics that may go back a decade in the absence of more recent government statistics.

e. Non-financial government assets

The methodology requires that users have access to an accounting profile of non-financial government assets. This concept has only recently emerged in government accounting, and very few governments provide a public accounting of such non-financial assets.
Moreover, when governments actually do place a value on their non-financial assets, the valuation is generally considered unreliable for the most part. In addition to the recognized problem of quality in inventories of public assets, the valuation method is subject to debate among experts.
As a result, the calculations are based on approximations that must be treated as orders of magnitude rather than duly reliable estimates. These orders of magnitude nonetheless yield measurements that are consistent overall.

f. Impact of the energy mix in each country

Measurements obtained using the data provided in the Carnegie Mellon database (which reflects the economic input/output of the US economy in 1997) were modified by applying the following ratio: GDP(country)/CO2(country) X CO2(US)/GDP(US).
Applying a more rigorous method that takes greater account of the actual difference between a country's energy mix (e.g. the origin of electricity produced) and the structure of its economy (e.g. in health-care funding, the building's economic impact in terms of energy, wages and equipment) was unrealistic, given the scope of the project.
While it does not provide for a rigorously detailed assessment, the macroscopic use of a ratio that reflects variations in carbon intensity among different economies appears to be an acceptable compromise.

g. Neutralizing double counting

Any assessment of the entire value chain of goods or a company will necessarily lead to double counting. In the case of mutual funds, double counting has been neutralized using the methodological approach described in the body of the document.
This neutralization is based on exchanges among business sectors, which are themselves estimated on the basis of the economic input/output of the US economy in 1997 rather than the actual flows among the companies held in the portfolio.

This process of neutralizing double counting is applied only to mutual fund portfolios; it is not applied to savings products or composite products.

h. The "product use" phase in the financial sector

The unique value of the project is that it provides a measurement of the use phase of financial products. Therefore, when calculating the estimated value of an investment portfolio, the use phase of banking products should be taken into account, in accordance with Scope 3 of the GHG Protocol for companies in the sector.
The work currently underway with Centre Info has not yet yielded a satisfactory method for accomplishing this (one that is consistent with all of the work performed and can be applied on a broad scale using data published by the banks).
As a result, the decision was made to value monetary funds and euro-based life insurance funds on the basis of the ratio obtained for savings funds: an intensity of 220 tonnes of CO2 equivalent per million euros outstanding.
The research being conducted with Centre Info will ultimately allow us to assess the bias introduced by this arbitrage.

The work now underway with Centre Info is based on:

1) The breakdown of activity profiles among banks into four major profiles:

- Credit (business and personal loans).
- Investment (market-based investment activity).

- Financing (financing of major projects).
- Services (services to individuals and professionals, i.e. banking and related services).

2) The valuation of the use phase through application of the CO2/GDP ratios calculated by the savings funds.
3) The accounting of use-phase emissions, based on the breakdown of banking activity by profile for the portfolio in question.
4) The neutralization of double counting, based on the "banking consumption" profiles of non-financial companies in the portfolio in question

[iv] **Assumptions and limitations: undifferentiated allocation of emissions to different financiers**

The methodology assigns 100% of a company's emissions to its financiers, regardless of whether the financier holds a line of credit, a bond or an equity share. Thus, this method does not recognize the concept of governance, since it assigns the same financing role to equities and bonds (having the same nominal value). However, since a share confers ownership, it provides access to the company's governance and intrinsically carries a higher level of responsibility.

[v] **Assumptions and limitations: application to government accounting**

With regard to government bonds, the absence of equity capital required that, instead of measuring financing volume on the basis of accounting liabilities, we use asset valuation. The gap between assets and liabilities yields an "invisible" form of financing for governments. This can be expressed in conceptual terms as citizen ownership of the State.

[vi] **Assumptions and limitations: non-financial government assets**

The methodology requires that users have access to an accounting profile of non-financial government assets. This concept has only recently emerged in government accounting, and very few governments provide a public accounting of such non-financial assets.
Moreover, when governments actually do place a value on their non-financial assets, the valuation is generally considered unreliable for the most part. In addition to the recognized problem of quality in inventories of public assets, the valuation method is subject to debate among experts.

As a result, the calculations are based on approximations that must be treated as orders of magnitude rather than duly reliable estimates. These orders of magnitude nonetheless yield measurements that are consistent overall.

[vii] **Assumptions and limitations: application to outstanding personal loans**

In the case of outstanding personal loans, the scope of emissions to be considered is determined by the nature of the product in question. For example, the methodology for an automobile loan assigns emissions arising from the vehicle's production, use and end-of-life rather than all of the emissions attributable to the loan recipient (consumer spending, energy spending etc.).
One could argue that the methodology is more favourable to outstanding personal loans than to business loans, for which the emissions inventory includes emissions generated by the company's operating expenses. Conversely, if individual emissions were to be taken into account in the case of a personal loan, individual spending by a company's employees and shareholders would have to be taken into account for a business loan as well.

[viii] **Assumptions and limitations: neutralizing double counting**

Any assessment of the entire value chain of goods or a company will necessarily lead to double counting. In the case of mutual funds, double counting has been neutralized using the methodological approach described in the body of the document.
This neutralization is based on exchanges among business sectors, which are themselves estimated on the basis of the economic input/output of the US economy in 1997 rather than the actual flows among the companies held in the portfolio.

This process of neutralizing double counting is applied only to mutual fund portfolios; it is not applied to savings products or composite products.

Other assumptions and limitations regarding the calculation methods

In general, it should be borne in mind that carbon accounting is based on recent concepts and academic research in economics and management, and should be viewed in light of decades of studies and changing business-management practices, which today give us a better understanding of the notion of value-added and wealth creation.

a. Unresolved accounting guidelines

In the absence of a clear consensus among all those involved (businesses, governments and NGOs in particular) regarding certain significant concepts in carbon accounting, a number of issues have been set aside with respect to the current methodology:

b. Prevented emissions

Apart from more general methodological considerations described in the first section, this methodology does not explore the concept of the emissions prevented through the use of certain products. To do so, we would have to rely on a clear methodological consensus and related metrics. For example, what is the volume of emissions prevented per metric ton of insulating material produced?
Another commonly cited example is the lagging effect of savings on consumption, which is said to be comparable to the notion of prevented emissions. This would mean that any emissions thereby prevented would be deducted from the emissions associated with a savings product.
Given the complexity involved in adapting the principle of prevented emissions to the various sectors of the economy, the concept has been left out of the initial version of the methodology.

c. Carbon credits

This issue has not been addressed in depth in the current methodology. A manufacturer that invests in clean development projects in Annex II countries, for example, would not see a corresponding decrease in the emissions attributed to it.
Similarly, organizations that adopt a strategy of carbon neutrality using the offsetting options available on the market would not necessarily see a decrease in their actual emissions.