Part 3

Climate change and the financial sector

09/01/2018

Morgane Nicol, Hadrien Hainaut

3. The shift towards a low-carbon and climate-resilient development pathway can't happen without a coordinated mobilization of private finance and investment

→ How does the financial sector deal with climate risks ?

Part 3 - Agenda

- The objective: shift financial flows
- A bit of recent history
- Focus on « climate » financial instruments
  – Development banks
  – Domestic public banks
  – Green bonds
  – Green investment funds and green debt
- Focus on mainstreaming climate actions
- Focus on financial regulation and supervision
- Other possible climate actions for financial institutions

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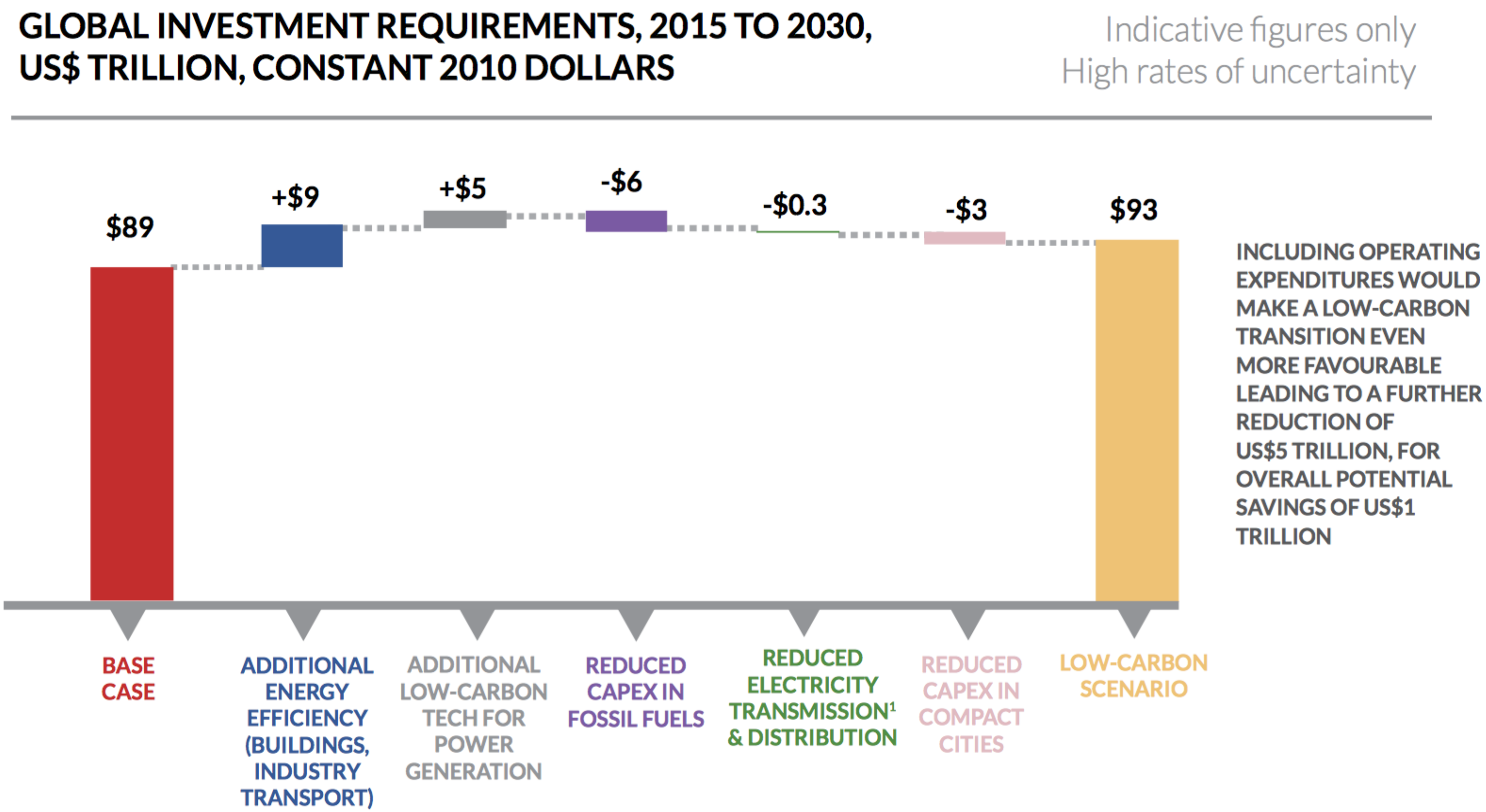
The objective: shift financial flows… to finance necessary investments

- Reminder 1:



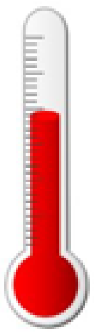
Sources: Canfin Grandjean Report, from New Climate Economy (2015)

The objective: shift financial flows… to achieve Paris Agreement's objectives

- Reminder 2:

Ambition of the Paris Agreement is threefold

An attempt to align the economy, development and climate



1. Limit global warming well below 2°C while aiming at bringing it to 1.5° with an aim to reach global peaking of GHG emissions as soon as possible" and zero-net emissions by the second half of this century.

2. Increasing the ability to adapt to the adverse impacts of climate change" by promoting resilience and low-carbon development

3. Making financial flows "consistent" with low-carbon climate resilient development.

The objective: shift financial flows… to limit exposure of portfolios to climate risks (1)

Remember his face and name !

Mark Carney, Governor of the Bank of England, Chairman of the Financial Stability Board

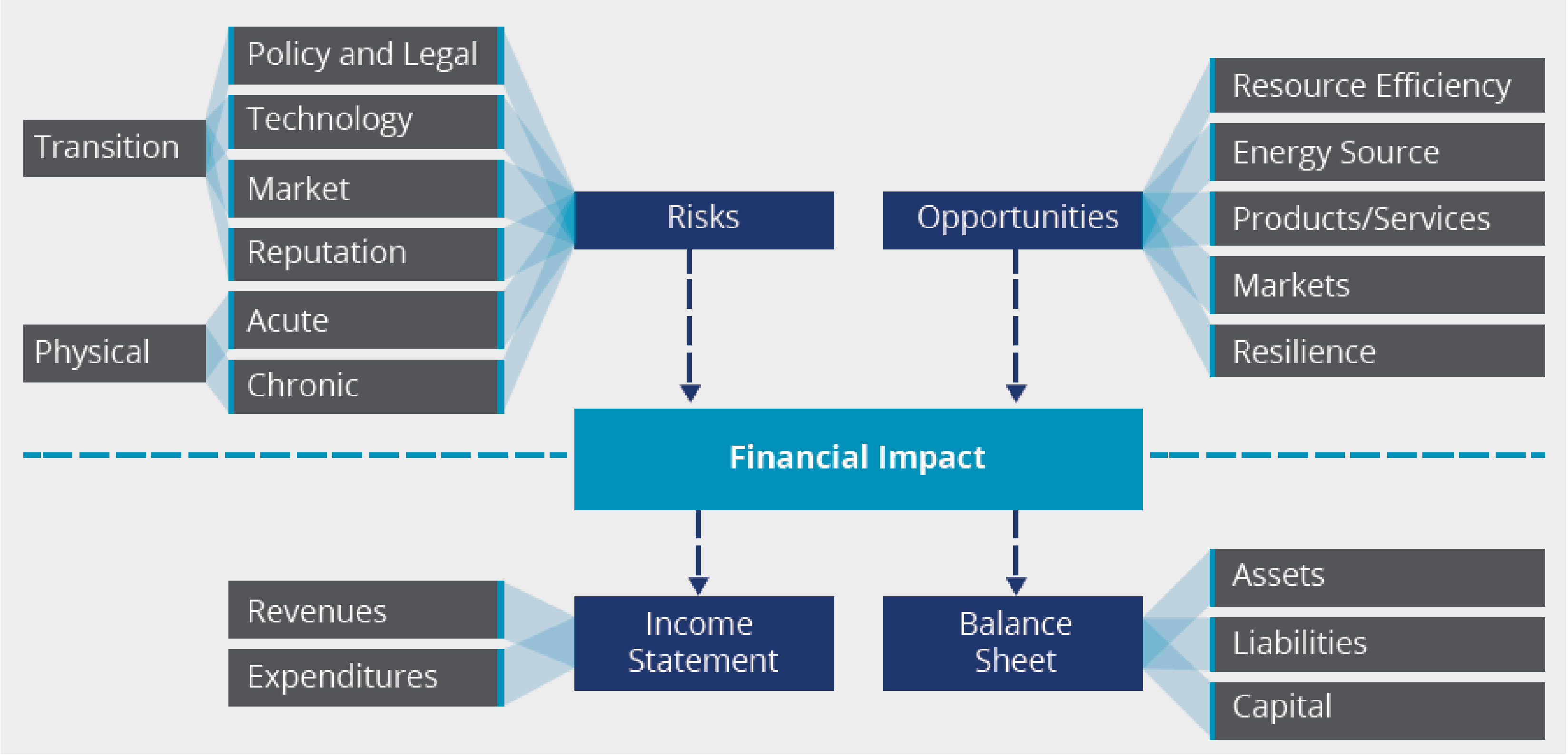
The tragedy of the horizon: *"The horizon for monetary policy extends out* to two to three years. For financial stability it is a bit longer, but typically only to the outer boundaries of the credit cycle – about a decade. In other words, once climate change becomes a defining issue for financial stability, it may *already be too late."*

The objective: shift financial flows… to limit exposure of portfolios to climate risks (2)

Climate physical risks	CC hazards impact assets and economic actors' performance, with in turn risks for the financial actors
Transition risks	Impacts to economic actors of expected regulatory constraints and new taxation and fiscal framework
Litigation risks	Impacts to economic actors's performance of potential litigation from civil society related to their responsability in CC

The objective: shift financial flows… to limit exposure of portfolios to climate risks (3)

The energy transition and supporting policies lead not only to risks but also opportunities to seize, which both impact financial performance



Source: Task Force on Climate-related Financial Disclosures (TCFD), 2016

Introduction: climate finance vs carbon finance

Climate Finance

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Carbon Finance

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Not so long ago… and still in some mouths

Climate change is not the **financial sector's problem**

There is nothing special the financial sector can do

I will invest anyway wherever I have the opportunity

We have a natural adaptation capacity. The market forces will make naturally evolve the financial sector if it is needed.

As soon as market conditions do exist, we are able to finance whatever seems needed

Nevertheless things are moving fast

September 2014: « Ban Ki Moon Summit » in New York

A lot of private financial sector commitments, including:
- Montreal Carbon Pledge
- Norwegian sovereign fund's divestment strategy

Especially in 2015

- April 2015: G20 mandates the Financial Stability Board to study climate change issues's integration by financial actors => TCFD
- 29 september 2015:

- November 2015: Article 173 in French Energy Transition Law
  + Label TEEC
- December 2015: Paris Agreement: Article 2.1.c : 3rd objective is to align financial flows with a 2° trajectory

And 2017

- January: Launch of a High-Level Expert Group on Sustainable Finance (HLEG) by the European Commission

- June: TCFD recommendations

- December: One Planet Summit

TCFD recommendations

Disclosure Recommendations (continued)

The four recommendations are supported by **specific disclosures** organizations should include in financial filings or other reports to provide decision-useful information to investors and others.

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Source: TCFD, 2017

HLEG interim recommendations

Early recommendations:

1- A classification system for sustainable assets

2- A European standard and label for green bonds and other sustainable assets, as well as labels for sustainable funds

3- Fiduciary duty that encompasses sustainability

4- Disclosures for sustainability

5- A sustainability test in financial legislation

6- Create ‘Sustainable Infrastructure Europe’

7- Position the European supervisory agencies on sustainability

8- Accounting standards for energy efficiency

Policy areas for further discussion:

1- Long-term policy signals to the private sector

2- Governance of firms and financial institutions

3- Integrating sustainability in ratings

4- Frequency of financial reporting

5- Accounting frameworks

6- Benchmarks

...

One Planet Summit: main statements (1/2)

Divest/Invest

- Axa, BNPP, SocGén, Natixis, Crédit Agricole: divest from oil sands
- World Bank: No longer finance upstream oil and gas after 2019
- IFC/Amundi: Green Cornerstone Bond Fund ($325 million)
- 91 French corporates to invest €300 Bn in the low-carbon economy

Engagement

- Climate Action 100+ Coalition: engagement strategy from 225 instit. investors (>$26 trillion in AUM) towards the 100 largest emitters

Mainstreaming

- Charter of Public Investors for Climate: All French public financial institutions have committed to integrate climate principles into their activities
- More than 30 public development banks commit to align their financing with the Paris Agreement

One Planet Summit: main statements (2/2)

Link projects and finance

- Global Urbis : initiative of EBRD, Global Covenant of Mayors, EC, BEI to ease access to finance for climate projects of cities/regions

Disclosure

- 237 companies (combined market capitalization of over $6.3 trillion) publicly committed to implement the TCFD

Financial supervision

- Network of Central Banks and Supervisors for Greening the Financial System

Financial products

- In France all life insurance contracts will be offered to be invested in a “climate” product from next year

Carbon pricing

- Launch of Carbon pricing for the Americas / Announcement by China of the unification of its carbon market

In a nutshell, what can be done to achieve the necessary redirection of financial flows?

Central banks, supervisory bodies and regulators	Financial institutions				Project developers
	Banks	Institutional investors	Asset managers	Other financial actors	
-Provide incentives for a shift in financial flows -CC risks evaluation -Monetary intervention?	- Measure their exposure to CC risks and decrease it - Integrate CC risks into risk management - Train analysts on CC risks and opportunities - Match financial instruments with low-carbon projects' specificities				Develop a large enough pipeline of financially sound low-carbon projects

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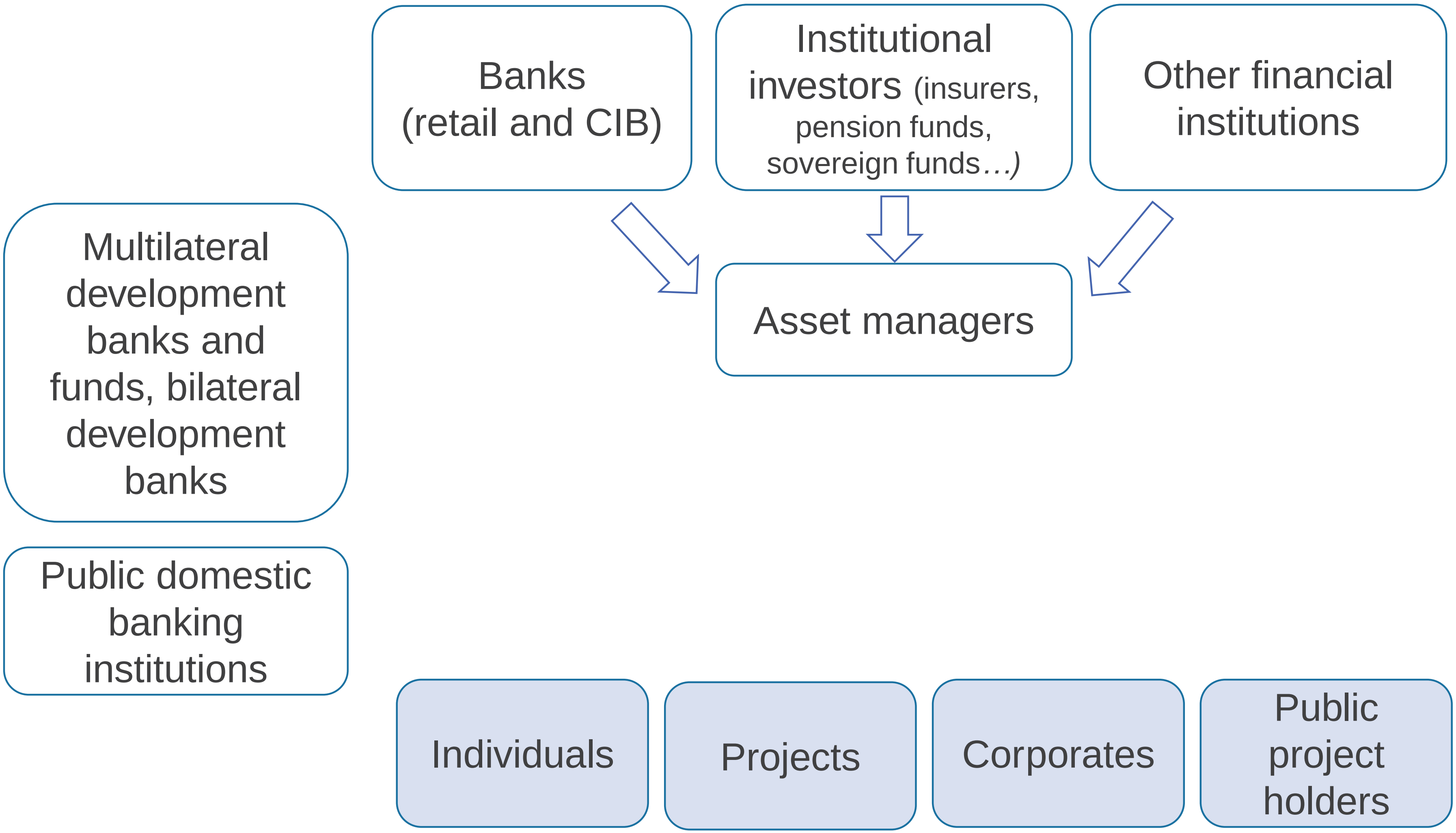
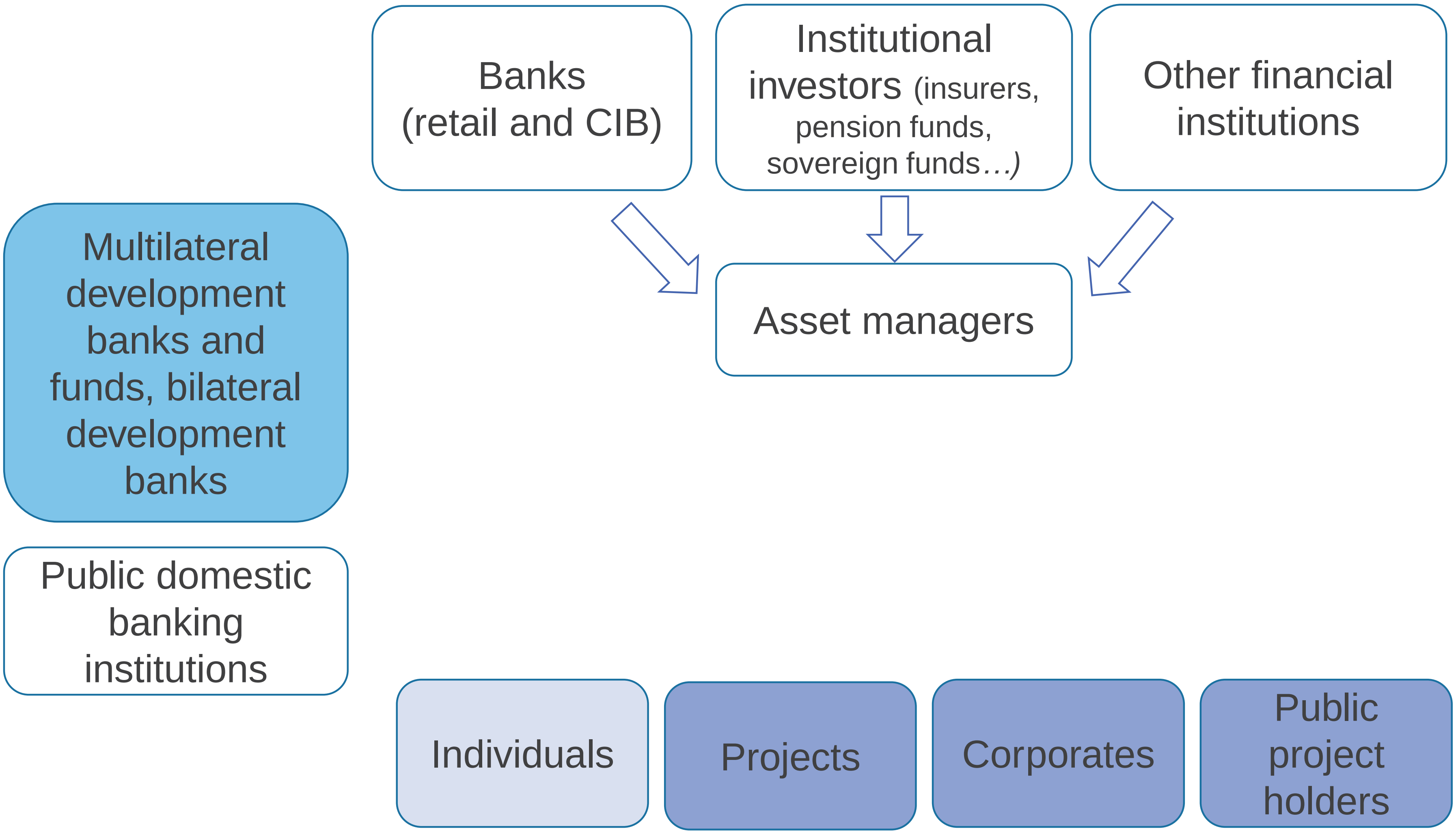
Financial instruments depends on financial institutions involved and categories of customers



Focus on development banks



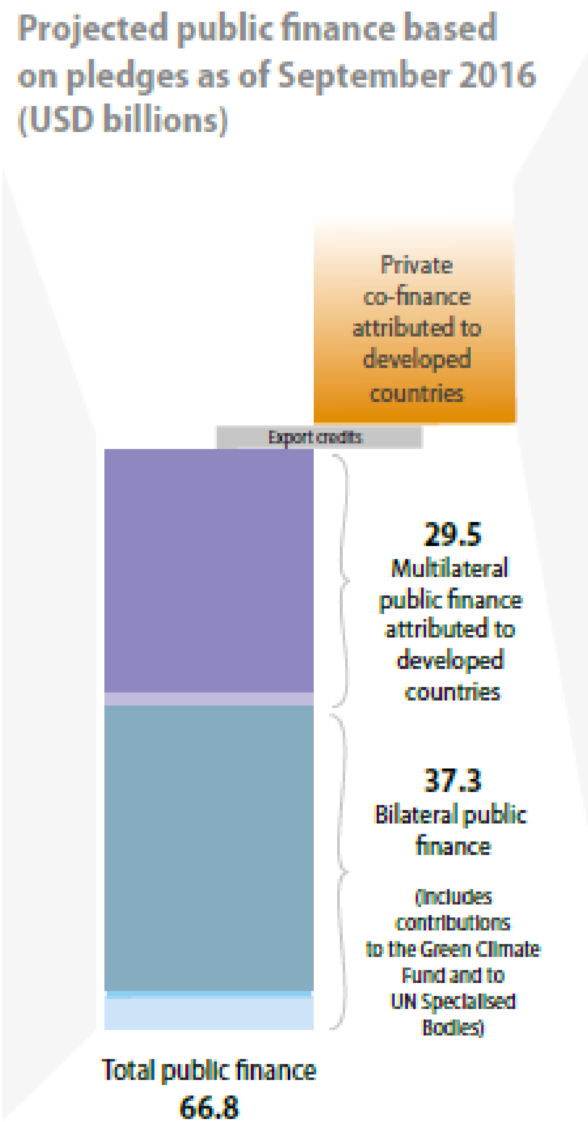
Le financement Nord/Sud, une question à 100 milliards par an

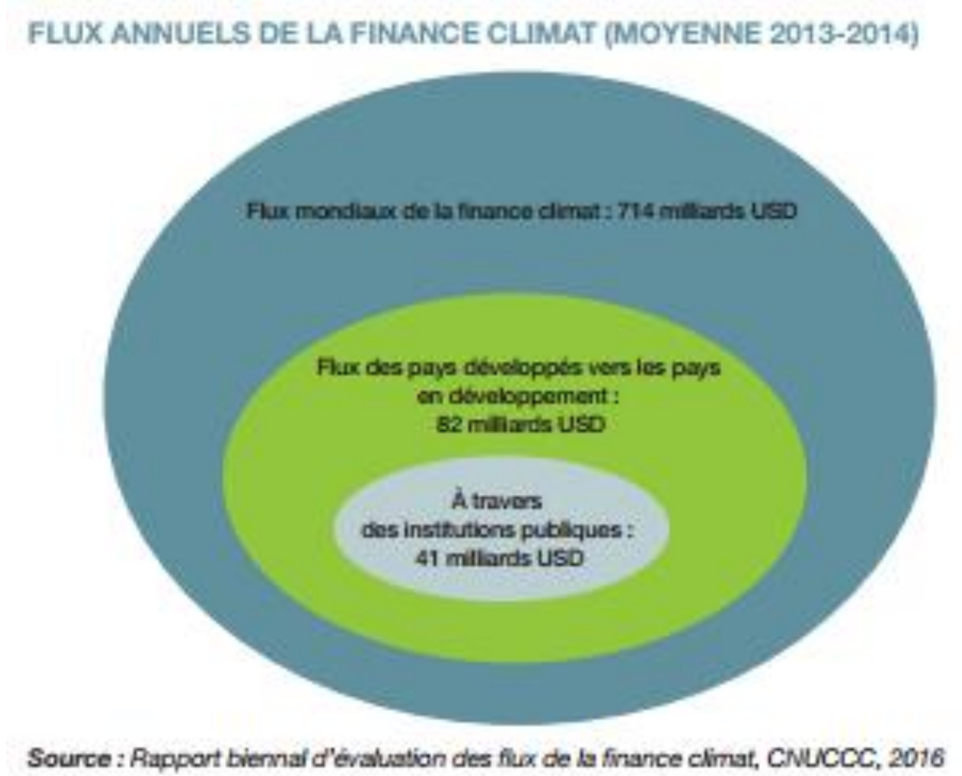
Paris Agreement commitment

EVOLUTION DU FINANCEMENT CLIMAT NORD/SUD DANS L'UNFCCC

Point Climat n°38 - COP 21 : un succès que marque « la fin du commencement », Décembre 2015 – I4CE | 5

100 bn goal appears reachable by 2020 – from developed to developing countries





Source: Chiffres clés du climat France, Europe et Monde édition 2018, Commissariat Général au Développement Durable / I4CE

Characteristics making Development Finance Institutions key actors

- Public-interest mandate
  - At times able to accept low- or below-market returns
  - Accept levels of risk to foster market development

- Access to high volumes of stable, long-term finance
  - International capital markets; household savings
  - Concessional finance without/limited use of public subsidies
  - Channel international sources of capital into domestic economy (EU funding, GEF / GCF funding, other)

- Holistic approaches
  - Economic environment: influence regulatory frameworks
  - Market developers and instrument testers

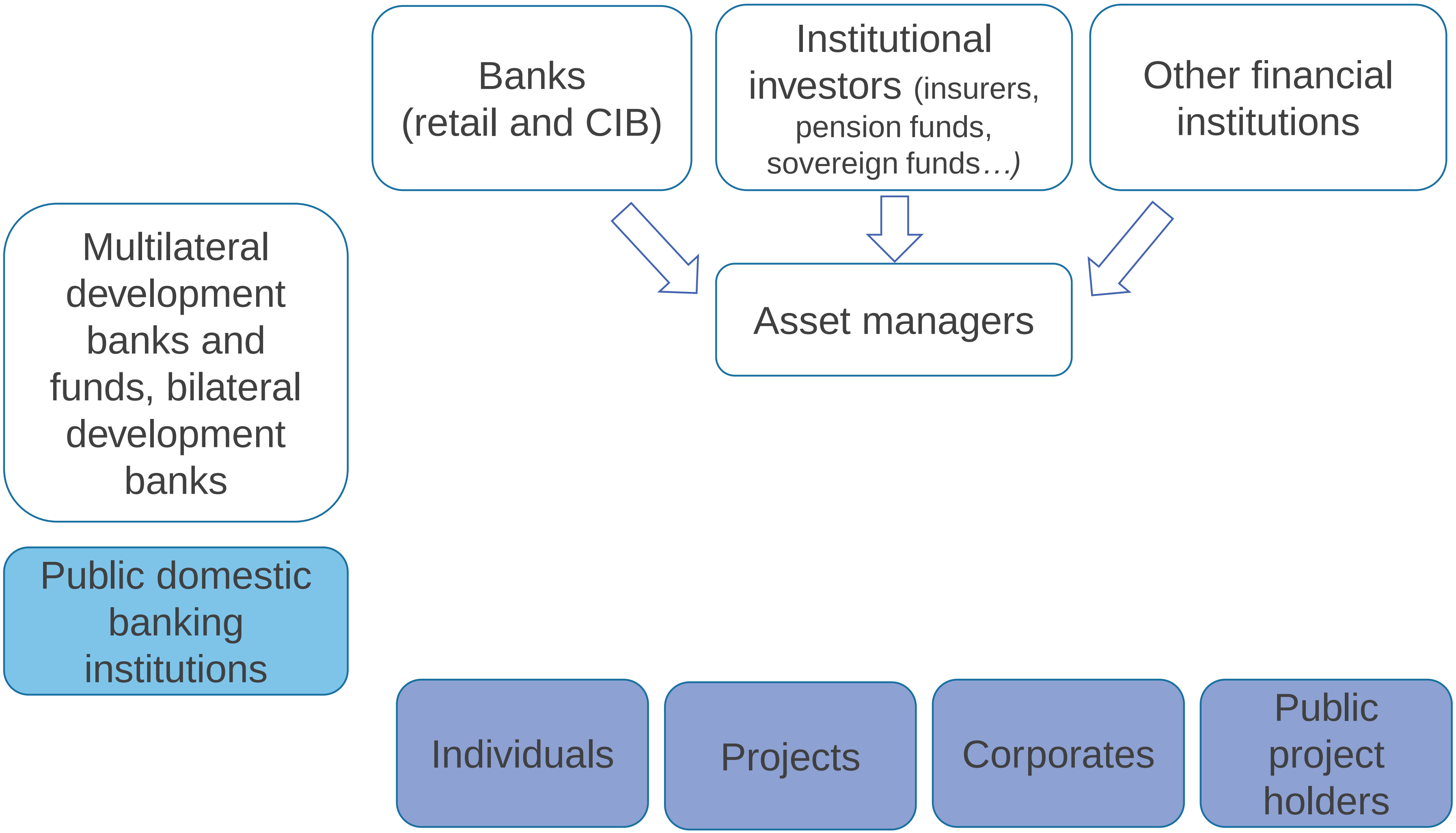
Instruments used by development banks

Table 5: Roles and tools of DFIs in supporting the low-carbon energy transition

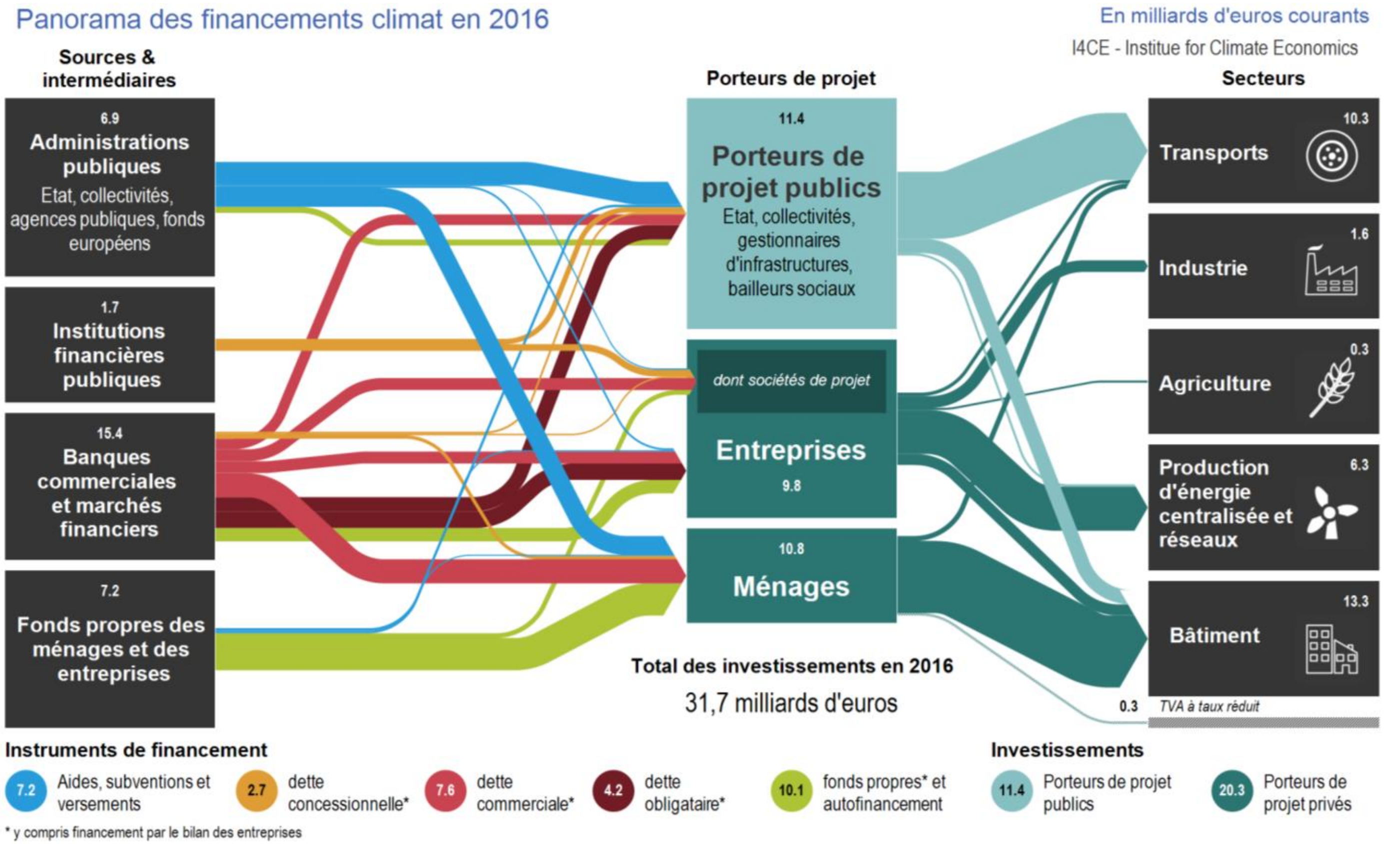
Role	Functions	Tools and Instruments
Facilitating access to capital	• Providing access to long-term capital • Identification of sectors and technologies • Prioritisation of actions in national climate action plans • Development of incentivising national policy framework to support investment • Facilities to channel financing through local banking network	• Concessional and non-concessional lending • Equity investment • International climate funds • Public-private partnerships • Risk sharing instruments (guarantees, structured finance…) • Grants • Technical assistance
Assisting in developing national development strategies	• Capacity building • Political dialogue	• Policy based loans • Technical assistance • Information tools
Support innovation	• Direct financing of demonstration projects • Assist in leveraging additional sources of financing (international and domestic) • Provide international expertise	• Specific grant financing • Technical assistance • Risk sharing instruments • Project development facilities

Source: *(Eschalier, Cochran, and Deheza 2015)*

Focus on public domestic banking institutions



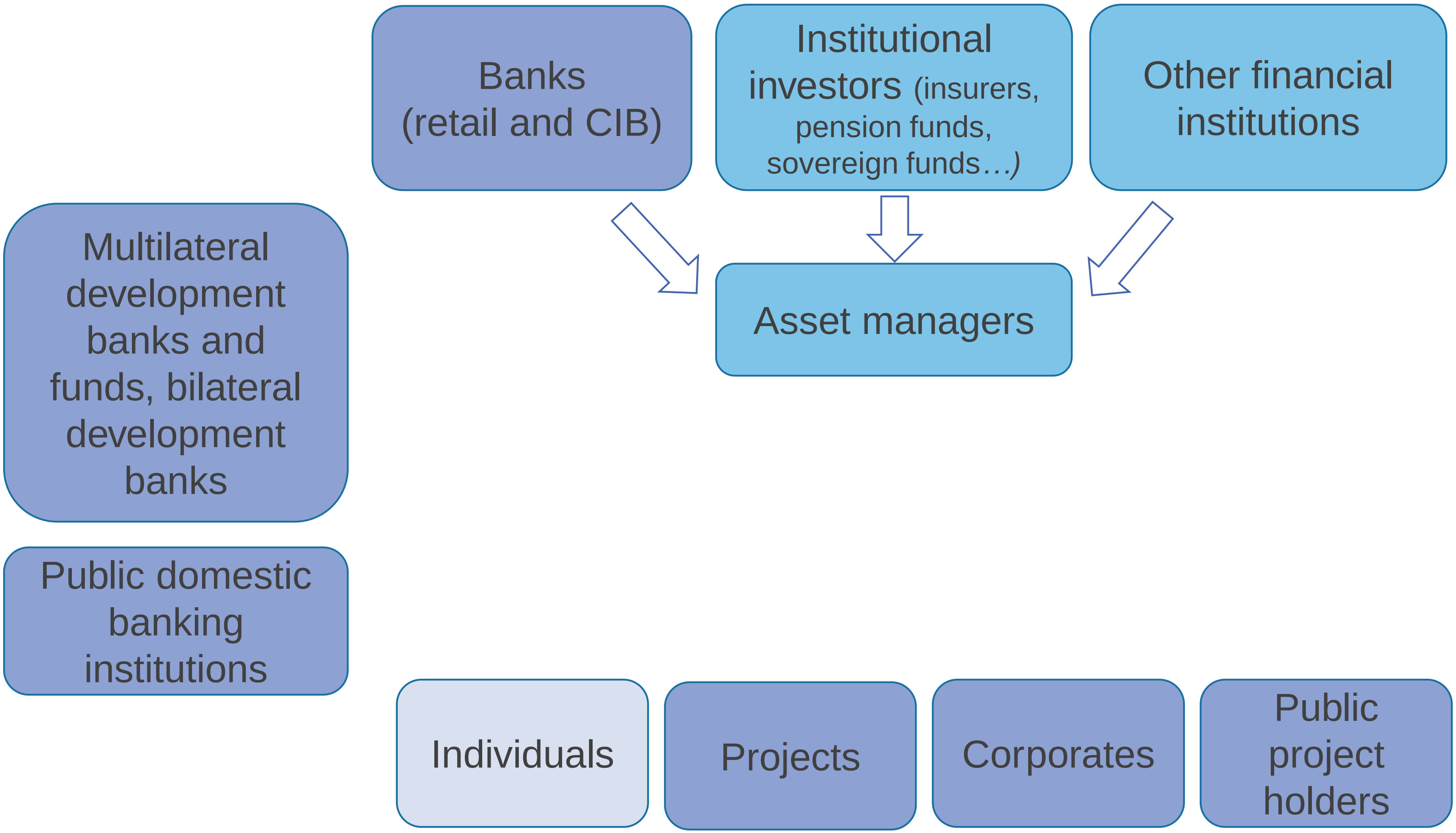
Instruments used by domestic public institutions



Above all concessional debt, and:

- Equity investment
- Risk sharing / Guarantee instruments
- Sometimes grants and technical assistance

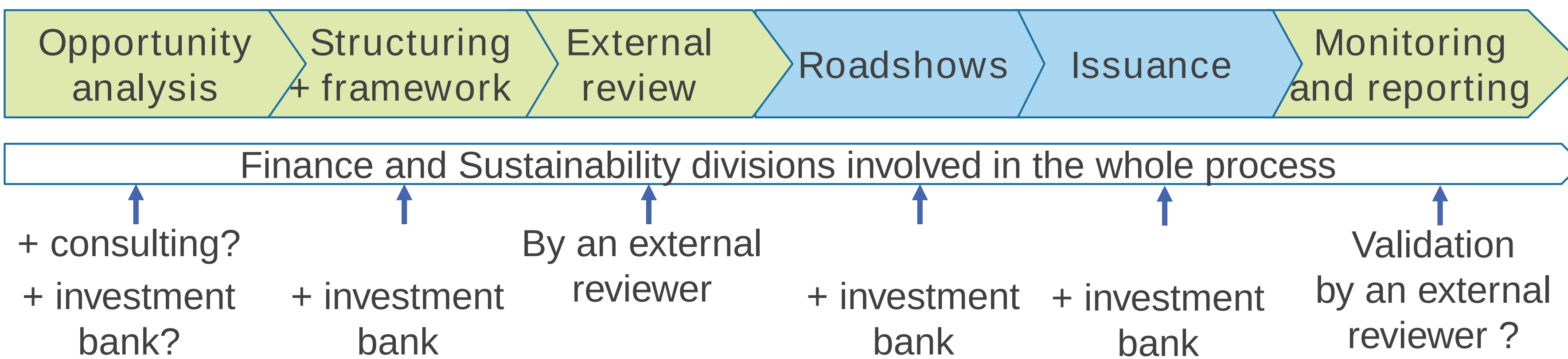
Focus on Green or Climate Bonds



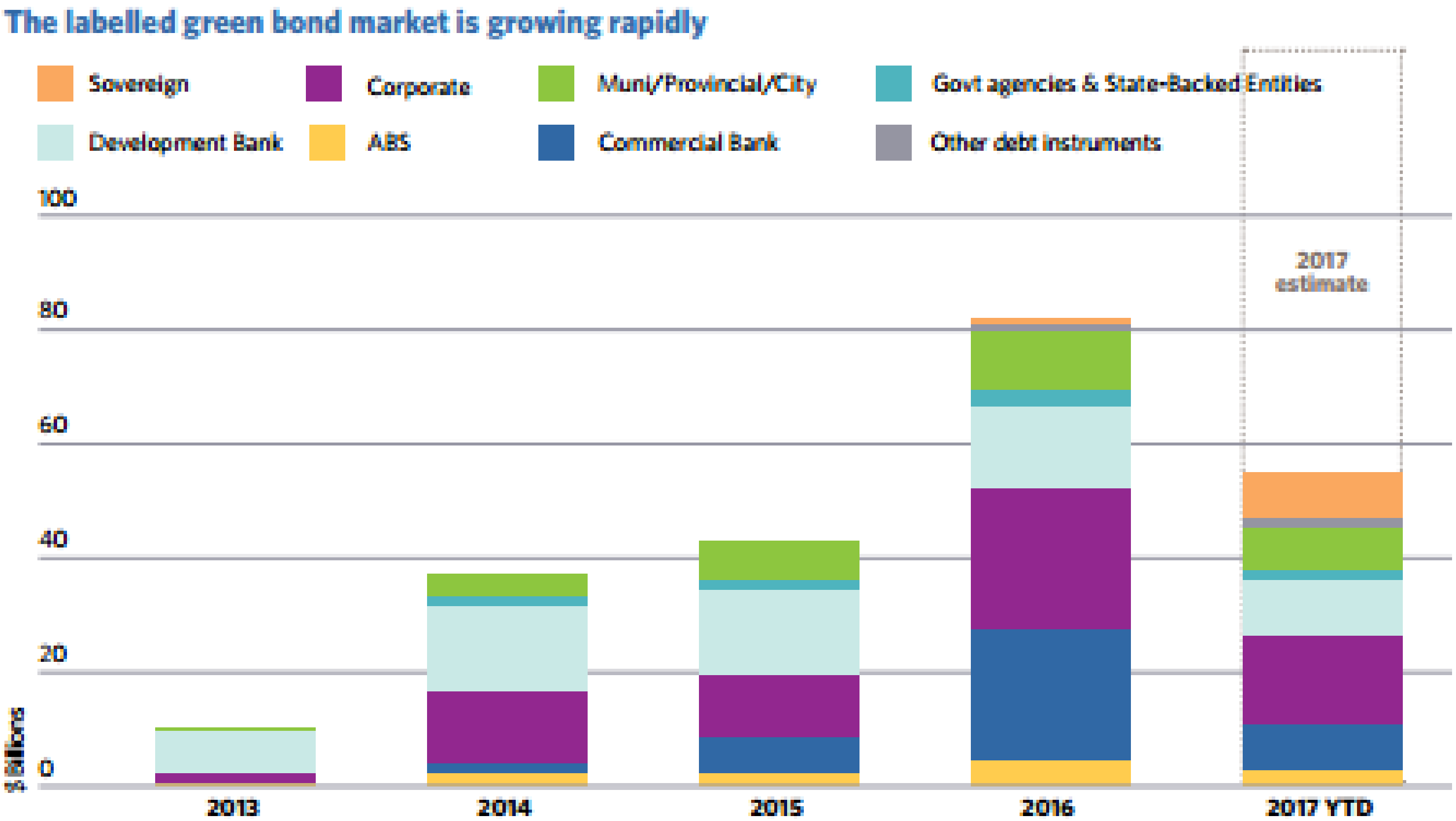
Green Bonds, kesako?

Fixed-income securities whose proceeds are used to finance environmentally sound projects

- Same characteristics as ‘normal’ bonds (senior secured, unsecured…)
- With an additional commitment from the issuer to finance at least the same volume of environmentally investments with the proceeds
- Eligible investments for the ‘use of proceeds’ defined in the **‘green bond framework’** disclosed before issuance

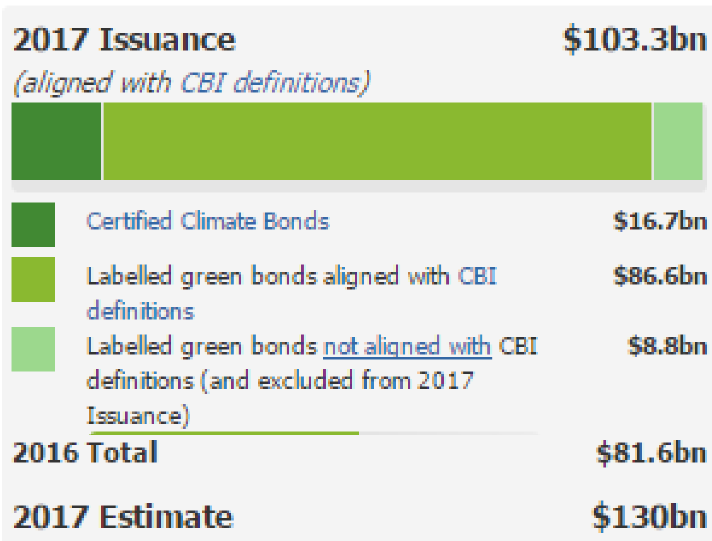


A growing market…

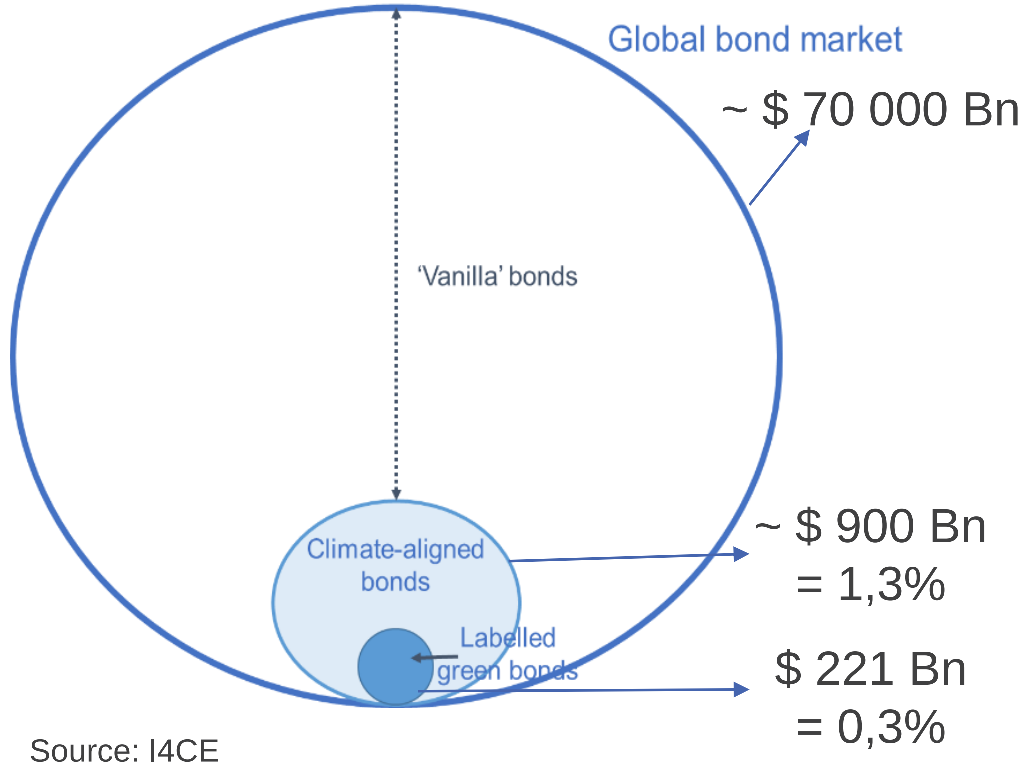


Source: Climate Bonds Initiative

… but still a niche



Source: Climate Bonds Initiative

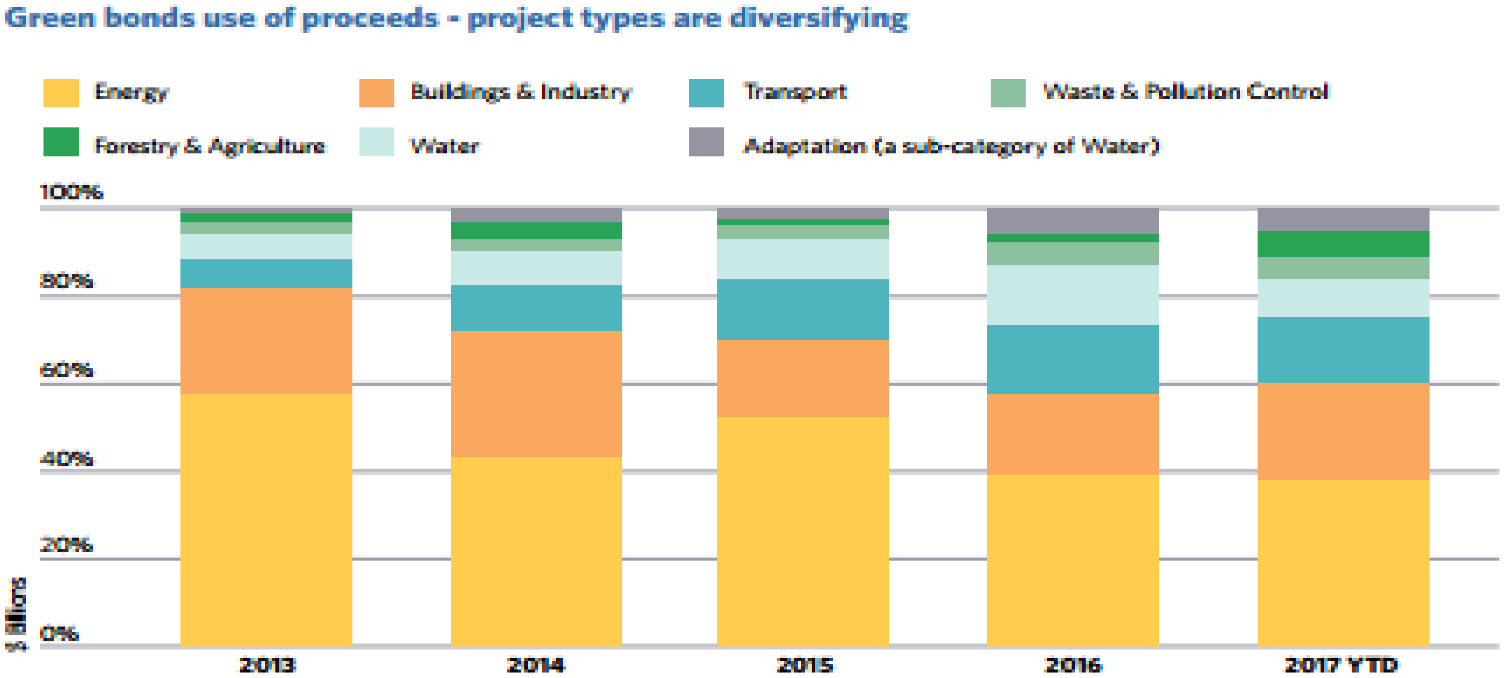


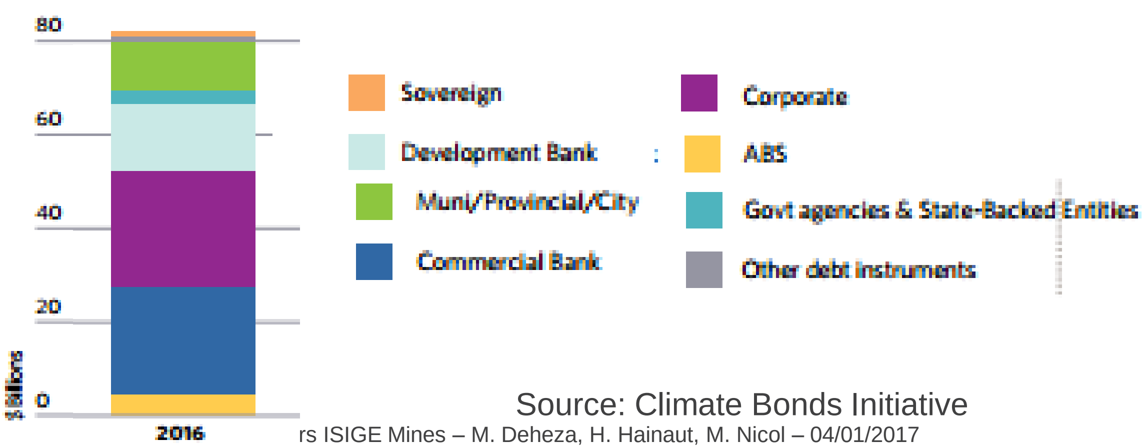
Source: I4CE

NB: Climate-aligned bonds = bonds matching CBI definition for a green bond, either labelled or not as green by the issuer

Labelled green bonds = bonds labelled as green by the issuer

What and who are green bonds financing?





Source: Climate Bonds Initiative

Potential to finance investments

Different bond instruments…		… for different investment needs	*Range of estimates of annual investment needs*
Corporate and SSA (Sovereign, Supranational, and Agency) bonds	Corporate bonds are bonds backed by a corporate's balance sheet (mainly large corporates).SSA bonds comprise treasury bonds and bonds issued by development agencies and local authorities.	• Renewable power generation	• USD 250 to 570 Bn
		• Electricity transport and distribution	• USD 270 to 420 Bn
		• Clean transport infrastructure	• No specific estimates available
		• Energy efficiency investments in industry and transport by large corporates	• A portion of USD 100 to 580 Bn- further research needed
Project bonds	Project bonds are project-based bonds issued by Special Purpose Vehicles (SPVs), with no or limited recourse to project holder	Same as corporate and SSA bonds, but only the largest projects (> USD 100 Bn, indicative figure)	Further research needed
Asset-backed securities	Financial bonds issued by a SPV and backed by a pool of loans, leases or receivables, all illiquid assets that become marketable through a process called securitization.	• Electric vehicles (and other alternative energy vehicles)	• USD 330 to 430 Bn
		• Energy efficiency in buildings	• USD 180 to 740 Bn
Financial bonds	Bonds issued by financial institutions to finance 'on-balance sheet lending' with recourse to the issuing financial institution.	All categories of investment needs when initially funded by banking institutions	All investment needs
No clear potential for green bonds		• Agriculture, Forestry and Land-use • Adaptation	Further research needed on characteristics of needed investments and estimates of the volume of these needed investments

A green bond is not a magical instrument to increase financial flows directed towards LCCR investments…

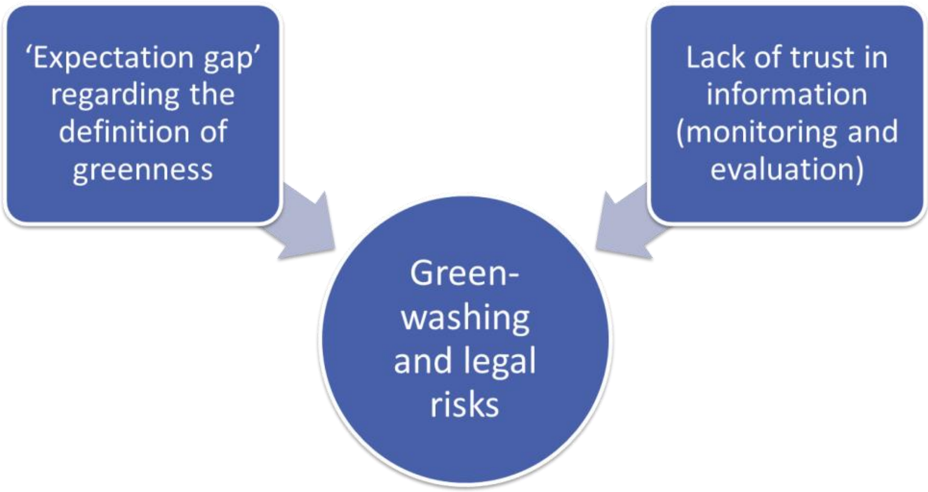
- In the current regulatory and institutional context, little potential to contribute to increasing financial flows directed towards LCCR investments beyond what would have occurred without labelling
  - ➢ Labelling a bond as green does not modify the risk profile of the bond / issuer for investors
    - ✓ In the future, could if the regulatory and institutional context changes and issuing a green bond occurs in the context of an alignment of the issuer's strategy with a 2°C trajectory
  - ➢ Labelling a bond as green does not carry a non-negligeable price premium, and may not in the future
    - ✓ Therefore it doesn't change financing conditions for project developers
  - ➢ Labelling a financial bond as green does not allow to **'make space'** specifically for additionnal LCCR loans, given how financial green bonds are structured for the moment

… but it is a great instrument to track bonds financing LCCR investments

- It nevertheless brings non-financial benefits:
  - **it eases the process of tracking ‘green’ investment opportunities** for investors
  - it contributes to accelerating the elaboration of a climate strategy in the issuing entity,
  - **it contributes to ‘anchoring’ this strategy in the organization and** its processes

Ensuring the environmental integrity of the green bond market is key

- Currently the main role of green bonds is to provide information to stakeholders
  - ➢ For investors, to track ‘green’ investment opportunities for investors
  - ➢ For issuers, it contributes to accelerating the elaboration and ‘anchoring’ of a climate strategy
  - ➢ For governments and other stakeholders, to track a part of ‘green’ financial flows
- BUT :



Aggravated by the ongoing diversification

Challenges to an harmonization of 'green' definitions

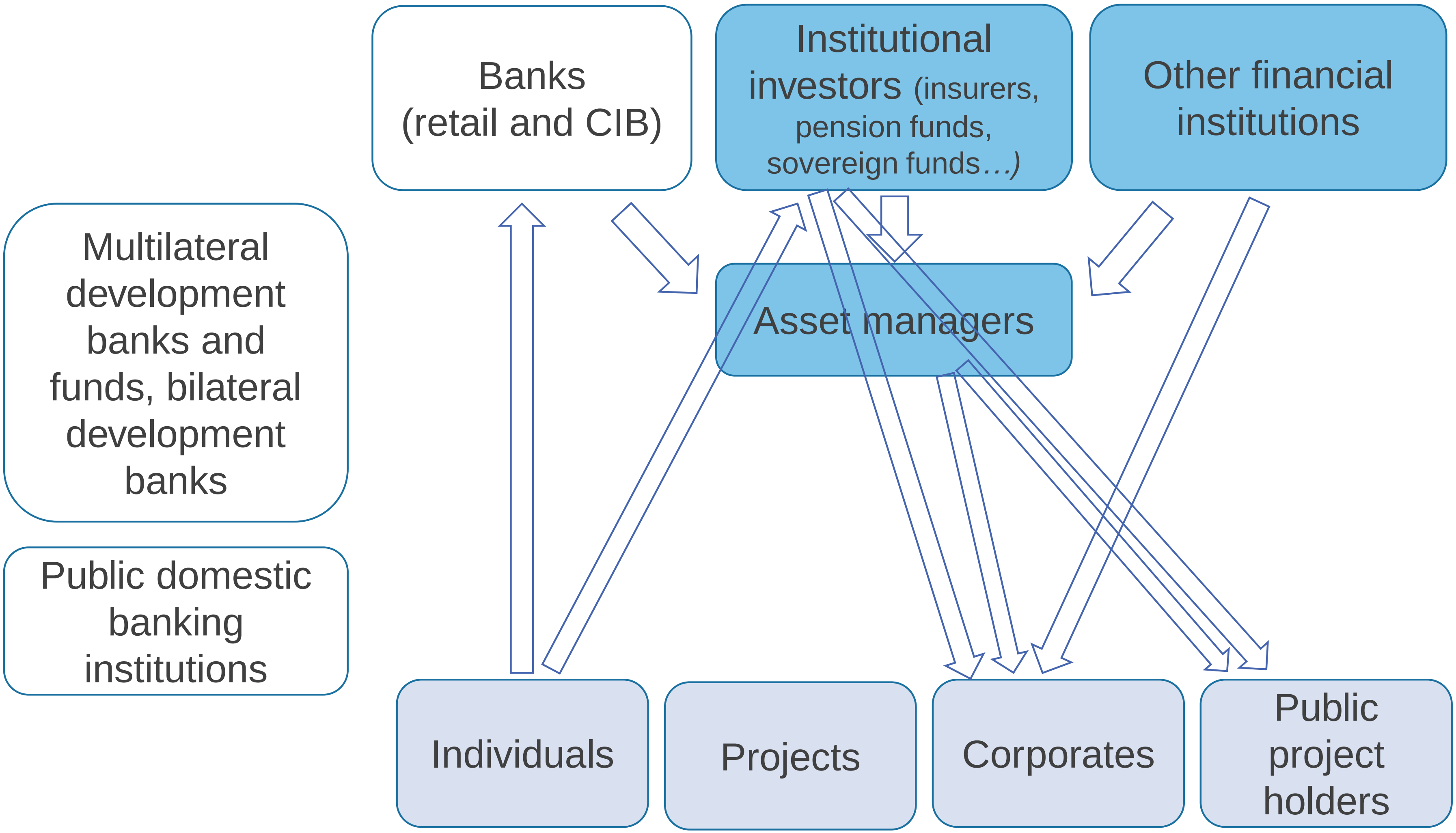
- Divergent expectations from green bond purchasers
  - ➢ From impact investors to mainstream investors
- Different national circumstances
- Uncertainties in decarbonization trajectories
- Need to avoid « lock-in » effects
- Difficulty of setting a definition in a dynamic world
  - ➢ Need to remain flexible to be able to take into account technological developments
- Assessment of 'greeness' of the issuer or the issuance?

➡ Issues to be taken into account in the current discussion on setting a european standard

Challenges related to external review and reporting processes

- Voluntary principles vs. legally binding rules
- Overview of external reviewers
  - Ensure reliability of assessment and competencies
- Comparability vs depth and usefulness of information
- Reporting of environmental impact indicators
  - Choice of such indicators; harmonization?
- Cost vs. precision and exhaustive nature of assessment
  - A mid-way between what is done now and CDM’s MRV procedures?

« Climate » investment funds: typical investment funds with a portion invested in assets considered as low-carbon



Green or « climate » debt: typical debt instrument financing assets considered as low-carbon

Banks (retail and CIB)

Institutional investors (insurers, pension funds, sovereign funds…)

Other financial institutions

Multilateral development banks and funds, bilateral development banks

Asset managers

Public domestic banking institutions

Individuals

Projects

Corporates

Public project holders

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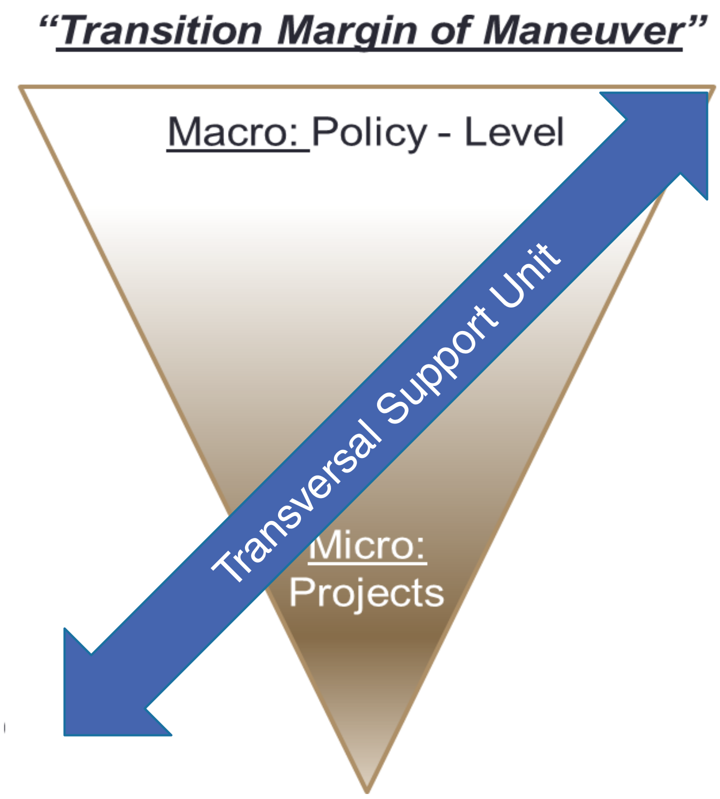
Mainstreaming across all ‘levels’



Source: I4CE after
(Cochran 2012; RICARDO-AEA 2013)

- Upstream *“Governance & Policy”*
  - Overarching objectives, targets and goals
  - Policies, strategic documents, and action plans
  - Accountability, reporting & tracking
- Downstream *“Structuring & Appraisal”*
  - Decision-making and evaluation process
  - Tools and criteria
  - Knowledge base & capacity of teams
- Transversal *“Support”*
  - Coordination & Dialogue
  - Technical Capacity & Support
  - Incentives and provision of resources

Why is mainstreaming challenging in practice?

- Need for a clear mandate:
  - Mandates from countries (i.e. existence of projects and demand DFI financial products)
  - Competing objectives and priorities for the institution at different levels
- Need for the issue to be seen as a priority and an opportunity (and not only a constraint) with added value by:
  - Across levels of management
  - Sector-specific operational teams
  - Country-related teams
- Need for stable leadership and ‘champions’:
  - Institutionalized to ‘weather’ changes in leadership
  - Processes and dynamics to overcome institutional inertia

Initiative: Climate Action in Financial Institutions

COMMIT to climate strategies	MANAGE climate risks	PROMOTE climate smart objectives	IMPROVE climate performance	ACCOUNT for climate action

Five Voluntary Principles for Mainstreaming Climate Action within Financial Institutions

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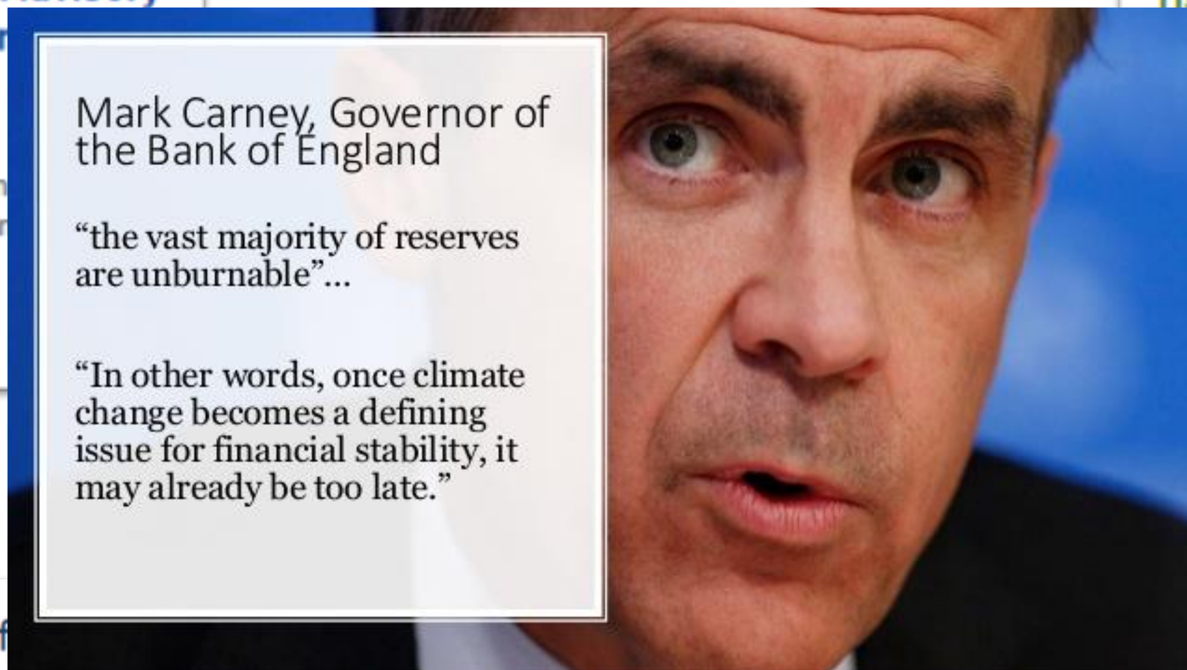
The new hot topic!

Reports of the Advisory Scientific Comm

No 6 / February 2016

Too late, too sudden
to a low-carbon econ
systemic risk

By: A group of the ESRB Advisory Scientific Committee



L'évaluation des risques liés au ...angement ...matique dans ... secteur ...ncaire

...ument de consultation en vue ...a publication du rapport prévu ...rticle 173 V° de la loi ...015-992 du 17 août 2015 ...tive à la transition énergétique ... la croissance verte

The impact of ... UK insurance sector

A Climate Change Adaptation Report by the Prudential Regulation Authority

September 2015

Waterproof?

An exploration of climate-related risks for the Dutch financial sector

DeNederlandscheBank
EUROSYSTEEM

But many challenges ahead

Financial models to assess risk and define price are looking backward, based on historical data…

Do you look at the rear-view mirror to find your way forward?

… and financial models only take into account 2 to 10 years projections…

So existing financial models are unable to integrate CC risks and opportunities

In the current financial framework, financing the energy transition won't happen at the needed pace without targeted efforts / constraints: Mark Carney's « Tragedy of horizons »

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Divestment from fossil fuels: making headlines but demonstration of the impact is still needed

- At the origins, NGO campaign
- Received a faire share of media coverage
- Managed to catch “big shots”:
  - Rockefeller foundation, Norwegian sovereign fu Ivy League Universities, etc.
- BUT:
  - If someone sells, someone buys
  - A critical mass is needed if you expect financial impacts
  - The link with shifting investment in the real economy is indirect

Disclosure - Example: Montreal Carbon Pledge

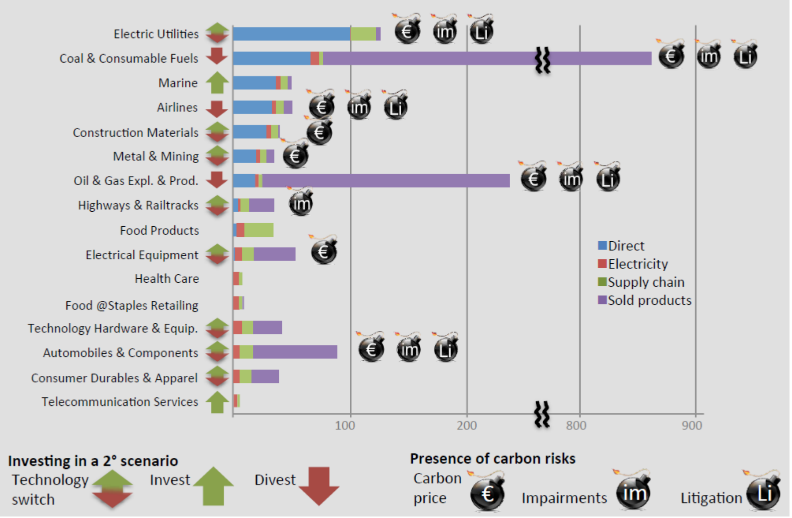
- More and more initiatives to make financial institutions disclose their “financed emissions”
- Objective: gain knowledge of climate change risks exposure
- Big methodological issues remain and depending on the objective carbon footprinting may be not the best tool

PRI | MontréalPLEDGE

Portfolio Decarbonization Coalition

CDP DRIVING SUSTAINABLE ECONOMIES

FIG.16.INTENSITY AND MATERIALITY OF FINANCED EMISSIONS BY SCOPE OF REPORTING FOR SELECTED INDUSTRY GROUPS
Sources: 2°ii, Inrate data for MSCI World index companies



Shareholder activism and engagement

- Another option is to remain within companies' shareholders and influence their strategies
- There is a more direct impact on investment than for divestment
- Critical mass is still needed but within the shareholders
- It could lead to strategic reviews or "give my money back" campaigns

"As for the future, your task is not to foresee it, but to enable it"

Antoine de Saint Exupéry