BANQUE DE FRANCE

EUROSYSTÈME

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Opening keynote by François Villeroy de Galhau,

Governor of the Banque de France

"Green Finance – A New Frontier for the 21st Century"

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Ladies and Gentlemen,

What location could be more appropriate for a conference on climate change than Amsterdam? Two thirds of Dutch territory is at risk of flooding as sea levels rise.[i] It is no coincidence that this country's mathematicians, including Prof. Laurens de Haan, have made decisive contributions in determining a safe height for sea dikes based on extreme value theory.[ii] Yet the interest of central bankers and supervisors in climate change may seem more surprising. Though unexpected, it is not fashion, it is conviction: climate stability is, in the long run, one of the determinants of financial stability. This is even more important to us in Europe because the Treaties entrust the Eurosystem with the task of "supporting the general economic policies in the Union";[iii] this includes "the sustainable development of Europe based on […] a high level of protection and improvement of the quality of the environment"[iv] (Art. 3).

And one thing is certain: time is running out. At the One Planet Summit in Paris last December, President Macron issued a stark warning that "we are losing the battle" on climate change. Mark Carney will tell us later on whether we have escaped the "tragedy of the horizon"[v] he famously described. Clearly, if carbon emissions remain on their current trend, and if we want to keep the increase in temperature below 2°C, our global carbon budget[vi] will be consumed within 15 to 30 years.[vii]

As central bankers and supervisors, our mission is both humble and considerable. Humble because the success of the Paris Agreement is the responsibility of the signatory states: the EU is committed to reducing carbon emissions by at least 40% by 2030,[viii] and financial regulation cannot be a substitute for an ambitious climate agenda. Considerable because, we must do everything we can to support and complement the action undertaken by states. It is a great challenge for us, as supervisors in the 21th century. I would even say that it is our "**new frontier**", comparable to the financing of growth and major infrastructures in the 19th century or the management of great financial crises in the last 100 years.

For this reason, I am very pleased to see that the Network for Greening the Financial System (NGFS), that the Banque de France launched last December, is gaining momentum. This pioneering initiative brings together, for the time being, 9 central banks and supervisors from all over the world, and is chaired by Frank Elderson (De Nederlandsche Bank). We plan to publish our first report by April 2019. In the meantime, let us take a closer look at the risks presented by climate change, but let us not overlook the opportunities. In my remarks today, I will address these two questions: (i) how can we better measure the long-term risks associated with climate change? (ii) and how can we develop the opportunities related to the financing of the transition? [slide 2]

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I. From physical risks to transition risks, and from a snapshot to a video

Dr Shuckburg has just given an excellent presentation of the available research, which confirms that the forces of climate change are powerful and inevitable. **Physical risks** – the increased frequency and severity of extreme weather events – are obviously the most visible and immediate source of risk for the financial sector. [slide 3] With 710 natural disasters in 2017,[ix] we have just lived through another year of record climate turbulence. The 600 mark has been exceeded only five times, all of them in the last six years. Needless to say, **the insurance sector is at the forefront in dealing with physical risks**. Yet, contrary to widespread belief, **if not covered by insurance, physical risks could loom large for banks as well**. The lack of insurance protection when natural disasters occur, or what we call "protection gaps", may increase credit risks for banks if it leads to suppressed economic activity and higher unemployment. Globally, protection gaps are already sizeable.[x] They could increase further, including in developed countries, if insurers increase their premiums or simply retreat from risky market segments. Physical risks should therefore be, at the very least, carefully monitored.

But what might scare people the most is not necessarily what we should focus on the most. **Transition risks**, the ones related to the adjustment towards a low-carbon economy, are less visible long-term risks that have not yet materialised. Nevertheless, we need to be prepared for these as well. Transition costs and uncertainties about the winners and losers will certainly create strong market volatility and lead to adverse aggregate macroeconomic outcomes. According to our first estimates made by the ACPR – the French supervisor –,[xi] 13% of French banks' total net credit exposure is to sectors vulnerable to transition risks. The DNB conducted a similar exercise and found roughly the same exposure for Dutch lenders.[xii] Financial institutions may object that the timeframe for the materialisation of these risks is far beyond their investment horizon and the average maturity of their balance sheets. They may argue that their exposures can be adjusted progressively if needed. In my view, it is delusional to think that when risks become perceptible, everyone will be able to cut their exposures at the same time and in an orderly fashion.

My hope is that the current momentum among supervisors around the world will help us to **better measure and mitigate the long-term risks associated with climate change**, and hence smooth the transition. In this regard, we, as supervisors, should collectively **move forward in two priority areas**. [slide 4]

Our first priority should be **the identification and disclosure of existing exposures in the financial sector, or "the snapshot of risks".** A huge amount of work has already been done: the recommendations of the FSB's Task Force on Climate-related Financial Disclosures (TCFD) provide a comprehensive and consistent basis for the voluntary disclosure of information about risks. In addition, I propose that we identify European best practices, and move gradually towards a compulsory transparency requirement in Europe, provided that two conditions are met in order to avoid overburdening financial institutions: this requirement should be based on (i) a “comply or explain” principle and on (ii) a common taxonomy with a sufficiently broad level of aggregation. France already requires by law[xiii] that asset managers, banks and insurance companies publish information about the way they take climate change into account.

On top of that, we should **develop forward-looking carbon stress tests for both insurance companies and banks – what I call “the video of risks”.** It is obviously a complex and difficult task, but it is essential. Today we are able to perform sensitivity analyses to ascertain the size of probable losses for financial institutions’ portfolios under a range of economic scenarios. But one of our duties in the NGFS will be to carry out additional work on two key issues: (i) how to translate climate change scenarios into economic scenarios that can be used in our stress testing frameworks, and (ii) assessing the impact of shocks on the probability of default over a much longer horizon than the usual one of one year.

II. <u>Converting our quantitative and qualitative challenges into unprecedented opportunities</u>

Our objective is to enhance the role of the financial system, not only to manage climate change–related risks, but also to “mobilise capital for green and low-carbon investments.”[xiv] But **financing the transition to a low-carbon economy is both a quantitative and qualitative challenge.**

[slide 5] The **quantitative challenge** is linked to the **massive investment required** in three areas: first, infrastructure and technical solutions, especially in transport, energy production and consumption and agriculture; second, intangible goods, including continuous training and research; and third, the adaptation and improvement of existing structures, notably the thermal rehabilitation of buildings. The needs are so considerable that public financing alone will never be sufficient: as an illustration, the estimated global needs could reach USD 90 trillion over the next 15 years for new green infrastructure alone.[xv]

Fortunately, the private sector is already showing a **growing interest in green finance**. I could cite many examples, including the sharp rise in the global green bond market, +78% in

2017,[xvi] or the success of the issuance of France's first green sovereign bond in January 2017 with EUR 7 billion allocated and total demand of more than EUR 23 billion, and supplemented yesterday. All this looks very promising… but it is **still insufficient**. The systematic oversubscription of green bonds at issuance is actually a sign that there is a lack of green financial products. Green markets remain niche markets: green bonds still account for less than 2% of global debt issuance.[xvii] The success of the transition will also depend on our ability to broaden the sources of financing: we should not rely solely on green **bonds**. We also need more green **loans**, and more **green financing in general**, accessible to individuals, SMEs and start-ups.

Green financing requires an innovation-friendly framework: green securitisation, green covered bonds, green derivatives, green crowdfunding platforms and green private equity should all be promoted. In addition, we have to carefully **assess the impact of existing regulations**. In the face of strong pressure from the financial industry, we must not however lose sight of our main goal as supervisors, which is financial stability. So far, there is no empirical or theoretical evidence that "green" assets are less risky and could warrant lower risk weights in the form of a "green supporting factor". We should instead target brown assets with a "brown penalising factor", because the transition risks will at some point materialise. This could be designed either as a dedicated Systemic Risk Buffer or be integrated into Pillar 2 requirements. The latter would have the advantage of spurring banks to improve their risk management capabilities for climate-related risk.

This leads me to the **qualitative challenge**. [slide 6] The risk of green washing may undermine the reputation of green markets and impede progress. To me, the prerequisite for an orderly development of the markets is **a clear and harmonised taxonomy** of green assets and sectors. In this regard, I welcome the European Commission Action Plan which provides one of the most ambitious policy blueprints ever published on sustainable finance. But we should go further, at least at the European level, including with the United Kingdom: we should **work towards common standards** for the green bonds market. At present, two are widespread: the Green Bond Principles (GBP) and the Climate Bond Initiative (CBI). It would certainly make sense to promote a convergence towards a harmonised European standard, leveraging the GBP approach in terms of processes and transparency, and building on the CBI approach with regard to taxonomy. There should also systematically be an independent measurement of the impacts.

Last but not least, we need to **infuse sustainability into our own activities**, because our credibility also depends on our exemplarity. At the Banque de France, we took a pioneering step last month with the adoption of a **Responsible Investment Charter**. We are among the first central banks to commit ourselves to improving the contribution of our own funds and pensions portfolios to the environmental transition, and we intend to report annually on our progress.

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Let me conclude by quoting one of the greatest European writers of the 19th century, Victor Hugo, who once wrote: "How sad to think that nature speaks and mankind doesn't listen." We now have sufficient evidence that climate change speaks for itself. It is high time that we listened and acted in consequence. This is why we have decided to take our responsibilities firmly to heart. Not all countries have yet done so, unfortunately. But we, today, already stand together as a powerful coalition of the willing. Thank you for your attention.

[i] OECD (2013): *Water and Climate Change Adaptation: Policies to Navigate Uncharted Waters.*
[ii] L. de Haan (1990): Fighting the arch-enemy with mathematics. Statistica Neerlandica 44, 45-68.
[iii] Article 127 of the Treaty on the Functioning of the European Union.
[iv] Article 3 of the Treaty on the European Union.
[v] "Breaking the Tragedy of the Horizon – climate change and financial stability", Speech given by Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, Lloyd's of London, 29 September 2015.
[vi] The maximum cumulated amount of carbon emissions consistent with holding the increase in the global average temperature to below 2°C.
[vii] OECD (2017): *Investing in Climate, Investing in Growth*. https://www.oecd.org/environment/cc/g20-climate/synthesis-investing-in-climate-investing-in-growth.pdf
[viii] EU 2030 climate and energy framework, https://ec.europa.eu/clima/policies/strategies/progress_en
[ix] Munich Re (2018): "Hurricanes cause record losses in 2017 - The year in figures". https://www.munichre.com/topics-online/en/2018/01/2017-year-in-figures#furtherinformation
[x] Geneva Association (2014): *The Global Insurance Protection Gap: Assessment and Recommendations.*
[xi] French Treasury, Banque de France and ACPR (2017): *L'évaluation des risques liés au changement climatique dans le secteur bancaire,* February. Top-down assessment based on the nine sectors which display the highest level of CO2 emissions.
[xii] De Nederlandsche Bank (2017): *Waterproof? An exploration of climate-related risks for the Dutch financial sector*.
[xiii] Article 173 of the French Energy transition Act of 17 August 2015.
[xiv] Joint statement by the Founding Members of the Central Banks and Supervisors Network for Greening the Financial System, 12 December 2017.
[xv] New Climate Economy (2016): *The sustainable infrastructure imperative Financing for Better Growth and Development.* http://newclimateeconomy.report/2016/wp-content/uploads/sites/4/2014/08/NCE_2016Report.pdf

[xvi] https://www.climatebonds.net/files/reports/cbi-green-bonds-highlights-2017.pdf