



## **The Green Swan Toolkit:**

### **Four priorities to ensure financial stability in the age of climate change**

Financial institutions must transition swiftly to a sustainable model given their essential role in the economy. Yet, today, they fuel climate change by financing high carbon activities, despite the now universal recognition that climate change would significantly affect the lives and well-being of all and pose a major threat to financial stability<sup>1</sup>.

Ahead of the Green Swan 2021 Virtual Conference, Reclaim Finance, Positive Money, the New Economics Foundation, the Climate Safe Lending Network, Greenpeace, Re:Common, Banktrack and Public Citizen, put forward four main areas where progress will be key to break this vicious circle, thus stopping the accumulation of climate-related risks and induced financial disruption while contributing to the global low carbon transition.

#### **1) Adopting a “precautionary approach to climate risk”**

So far, the policy framework for dealing with climate risks has largely focused on solutions to reduce the perceived information gaps that prevent accurate risk pricing and evaluation. These include transparency measures (disclosures), scenario analysis and stress testing. While this work is undoubtedly relevant, its impact will remain limited because climate risks are characterized by “radical uncertainty”<sup>2</sup>, and hence “efficient” price discovery is not possible. Relying only on disclosure-based mechanisms also means entrusting environmental and financial stability - two public goods - to private agents. In addition, these analyses tend to bias financial concerns around avoiding short-term market disruption at the expense of longer-term, potentially catastrophic, and irreversible climate risks. An alternative “precautionary”<sup>3</sup> financial policy approach is needed to factor in longer-term risks and avoid the buildup of unaccounted for climate risks in the financial system, and a looming danger of financial crisis.

Many economic and financial studies have shown that the cost of inaction is too great to be borne by society and the financial system. When studying climate integration by central banks, the Network For Greening the Financial System (NGFS) underlines that “the cost of acting only once robust datasets and methods are established could be much higher than the cost of acting now given limited information”<sup>4</sup>. De Nederlandsche Bank (DNB) already supports such a precautionary approach at the ECB<sup>5</sup>.

Legislators and financial regulators should adopt a precautionary approach to climate risks in order to help the financial system mitigate climate change-related financial risks and, by this, mitigate climate change, thus reflecting the double materiality of financial decisions.

## **2) Adapting Pillar I capital requirements to consider the financial risks caused by fossil fuel exposures**

To limit global warming to 1.5°C, global fossil fuel production should decrease by an average 6% a year between now and 2030<sup>6</sup>. A total of 84% of known fossil fuel reserves will have to be left unexploited<sup>7</sup>, becoming effectively stranded, in order to limit global temperature rise to 1.5°C<sup>8</sup>. In its first “net-zero” scenario, the International Energy Agency (IEA) called for the end of investment in fossil fuel supply and underlined the need for a swift phase-out of unabated fossil fuel power plants<sup>9</sup>.

However, the current Pillar I<sup>10</sup> regulations for banks and insurance companies – notably the Capital Requirements Regulation (CRR) and Solvency II Directive<sup>11</sup> in the European Union – do not consider fossil fuel exposures in a way that is consistent with their risk profile when determining capital requirements<sup>12</sup>. Given the high risk of existing fossil fuel companies’ assets becoming at least partially stranded, exposures to existing fossil fuel assets should be treated the same way as exposures currently deemed highly risky under the current frameworks. Not doing so effectively means leaving some of the risks not accounted for. Furthermore, it must be taken into account that new fossil fuel exploration or production will, with near certainty, result in fully stranded assets, with major financial stability implications for such activities<sup>13</sup>. The basic risk management principle that an activity at risk of losing its entire value should be entirely equity-funded should apply to any new fossil fuel exploration or production project.

The fossil fuel sector is the most exposed to climate-related risks<sup>14</sup> - notably due to asset stranding risks. Considering these high risks is a prerequisite to account for overall climate risks in capital requirements but is not sufficient to do so. Many other activities bear severe credit, market, and operational risks. Beyond fossil fuels, capital requirements should be adapted to reflect climate risks in all parts of the economy. The research<sup>15</sup> conducted by the Climate Safe Lending Network for UNEP FI and Climate KIC shows that adjusting capital requirements to account for climate risks is seen by financial experts as a key proposal to adapt banking regulation to the climate crisis.

## **3) Factoring in the systemic risk stemming from climate change**

Climate change is now widely recognized as a source of systemic risk for the financial system. International bodies<sup>16</sup> as well as financial supervisors<sup>17</sup> have recently highlighted the risks that climate change poses to financial institutions. Climate risks have far-reaching impacts and are widespread in the financial system; they can trigger sharp falls in asset prices, which can be amplified by financial markets.

Climate systemic risks should be adequately reflected in macroprudential frameworks. This can be done by implementing systemic risk buffers to mitigate them<sup>18</sup>. The Basel Framework provides financial regulators with such macroprudential buffers, and they are widely used by financial supervisors around the world. These buffers are designed to address systemic risks such as cyclical risks, macroeconomic risks, concentration risks or contagion risks. They are thus particularly adequate to tackle climate risks, a

significant long-term non-cyclical risk for the financial system. To implement such buffers, financial regulators could, for example, require higher capital for financial institutions most exposed to climate risks.

#### 4) Requiring the inclusion of climate criteria in financial institutions' decision making

To ensure an orderly and progressive transition that would significantly lower climate-related risks, financial regulators should require banks to integrate climate criteria into their financing decisions<sup>19</sup>. This could be achieved by setting regulatory expectations for Pillar II requirements, that set the rules for supervisory review and aim at accounting for residual risks<sup>20</sup>.

Specifically, we recommend that banks adopt climate targets aligned with a 1.5°C trajectory<sup>21</sup>, develop 5-year transition plans explaining how to progressively achieve this long-term target, and put in place a mechanism to integrate climate criteria into their financing decision process. Regulators should define indicators and time-bound processes to monitor progress on these key metrics. One way of achieving this could be to link such key metrics to the Pillar II capital requirements<sup>22</sup> to consider the climate impact of funded activities and reflect the high risk profile of financing activities that are at odds with the Paris-aligned transition.

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<sup>1</sup> Patrick Bolton and al (2020), [The green swan Central banking and financial stability in the age of climate change](#)

<sup>2</sup> Hugues Chenet and al (2020), "[Finance, Climate change and radical uncertainty: toward a precautionary approach to financial policy](#)", *Ecological Economics*

<sup>3</sup> Center For American Progress (2021), [Addressing Climate -Related Financial Risks Through Bank Capital Requirements](#)

<sup>4</sup> NGFS (2021), [Adapting central bank operations to a hotter world Reviewing some options](#)

<sup>5</sup> De Nederlandsche Bank (2021), "[Climate-related Financial Disclosure](#)"

<sup>6</sup> UN (2020), [Production Gap Report 2020](#)

<sup>7</sup> Carbon Tracker Initiative based on the work of Intergovernmental Panel on Climate Change (IPCC)

<sup>8</sup> Oil Change International (2018), "[The Sky's The Limit and the IPCC Report on 1.5°C Degrees of Warming](#)"

<sup>9</sup> Reclaim Finance (2021), "[IEA stops investments in fossil fuel supply but still bets on false solutions](#)"

<sup>10</sup> Under the Basel Accords, Pillar I sets rules to define capital requirements to account for credit risk, operational risk, and market risk.

<sup>11</sup> Finance Watch (2021), "[Breaking the climate-finance doom loop: Finance Watch amendments proposal to the Capital Requirements Regulation and Solvency II](#)"

<sup>12</sup> Finance Watch (2020), [Breaking the climate-finance doom loop](#) / Climate Safe Lending and eit Climate KIC (2021), [Financial Stability in a planetary emergency](#) / Center For American Progress (2021), [Addressing Climate -Related Financial Risks Through Bank Capital Requirements](#)

<sup>13</sup> Finance Watch (2020), [Breaking the climate-finance doom loop](#)

<sup>14</sup> See notably the analysis of Swiss Re regarding Energy and Utilities: Swiss Re (2021), [The economics of climate change: no action, not an option](#)

<sup>15</sup> Climate Safe Lending and eit Climate KIC (2021), [Financial Stability in a planetary emergency](#)

<sup>16</sup> See for example: FSB (2020), [The implications of climate change for financial stability](#) / BIS (2020), "[Basel Committee publishes analytical report on climate-related financial risks](#)" / IMF (2020), [Global Financial Stability Report: Markets in the Time of Covid-19](#) / NGFS (2019), [A call to action, climate change as a source of financial risk](#)

<sup>17</sup> See for example: ESRB (2020), [Positively green: measuring climate change risks to financial stability](#) / Luis de Guindos (2021), "[Shining a light on climate risks](#)", ECB / Lael Brainard (2021), "[Financial Stability implications for climate change](#)", Federal Reserve / CFTC (2020), [Managing climate risk in the US financial system](#) / Bank of England's [summary](#) about climate change

<sup>18</sup> Center For American Progress (2021), [Addressing Climate -Related Financial Risks Through Bank Capital Requirements](#)

<sup>19</sup> I4CE (2021), [Can financial regulation accelerate the low-carbon transition ?](#)

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<sup>20</sup> Under the Basel Accords, Pillar II sets requirements to consider the risks that are not factored in Pillar I. This “residual risk” includes pension risk, systemic risk, concentration risk, strategic risk, reputational risk, liquidity risk, and legal risk.

<sup>21</sup> Ben Caldecott (2020), “[Climate risk management \(CRM\) and how it relates to achieving alignment with climate outcomes \(ACO\)](#)”, *Journal of Sustainable Finance & Investment*

<sup>22</sup> Natixis already uses [a capital allocation mechanism](#), even though this mechanism seems more geared to favor “green” investments than to reduce support to the most polluting activities.