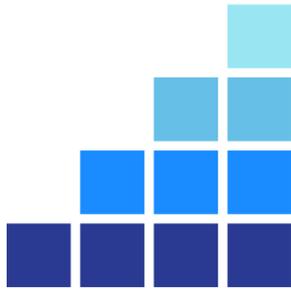




*IADI Survey Briefs analyse the result of surveys amongst IADI members and provide takeaways on policy and research topics of relevance to deposit insurers.*



**NO. 5**

# SURVEY BRIEF

THE ROLE OF CLIMATE IN DEPOSIT  
INSURERS' FUND MANAGEMENT  
MORE THAN A FINANCIAL RISK MANAGEMENT FACTOR?

BERT VAN ROOSEBEKE and RYAN DEFINA

March 2023

IADI Survey Briefs are written by staff members of IADI's Research Unit and are published by IADI. They analyse the result of surveys amongst IADI members. Any views expressed in them are those of the author(s) and not necessarily the views of IADI. The authors are grateful to Julien Reid (AMF, Québec (Canada)), Yvonne Fan (CDIC, Chinese Taipei), Michel Cadelano (FGDR, France) and Yuichi Fujimura (DICJ, Japan) for helpful comments.

The editor of the IADI Survey Brief series is Bert Van Roosebeke.

This publication is available on the IADI website ([www.iadi.org](http://www.iadi.org)).

© International Association of Deposit Insurers (2023).

All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.

International Association of Deposit Insurers (IADI), C/O Bank for International Settlements,  
Centralbahnplatz 2, CH-4002 Basel, Switzerland. Tel: +41 61 280 9933 Fax: + 41 61 280 9554

## THE ROLE OF CLIMATE IN DEPOSIT INSURERS' FUND MANAGEMENT: MORE THAN A FINANCIAL RISK FACTOR?

### Executive Summary

Drawing on a survey amongst IADI Members, this IADI Survey Brief takes stock of the incorporation of climate related issues in fund management by deposit insurers. It provides a snapshot of current deposit insurer practices, identifies deposit insurers' expectations, and explores possibilities for future developments.

- The IADI Core Principles for Effective Deposit Insurance Systems call for safe preservation of capital and maintenance of liquidity in fund management. Safe management requires the consideration of all relevant risks. This includes climate related financial risks to the deposit insurer's funds, where found relevant. In addition to financial risks, when managing funds, consideration of climate-related issues by deposit insurers may also be warranted given potential reputational risks. The relevance of such risks is likely to be heavily dependent on jurisdiction-specific characteristics.
- A number of participants in the financial safety net have started incorporating climate issues into their activities. Internationally, supervisory policy and action in the field aims at incorporating financial risks of climate change. In addition, we also identified a number of central banks whose incorporation of climate issues seems to go beyond managing financial risks only.
- Financial markets for climate-related products and green bonds markets in particular have grown significantly in recent years. Although growing, the share of such bonds in overall bond markets, as well as the share of sovereign issuers (excluding supranational issuers) and currency diversification are still low.
- Explicit incorporation of climate related financial risks is not common practice amongst deposit insurers when managing funds. At the same time, there seems to be wide-spread sentiment amongst deposit insurers that financial climate risks are not taken sufficiently into account when managing funds.
- Very few deposit insurers take climate (or other ESG) issues into consideration for reasons beyond financial risk management. Views amongst deposit insurers are split equally on whether there are convincing reasons to do so. Reasons mentioned often relate to the deposit insurer's social responsibility and expectations by the public. Half of deposit insurers that see convincing reasons for considering non-financial climate considerations expect to adopt an explicit climate investment policy within the next two years.
- The main risks deposit insurers associate with climate investment policies concern data gaps, liquidity risks and the risk of lower profitability.
- The main legal hurdle for deposit insurers to engage in a climate investment policy relates to the fact that, to safeguard safe and liquid investment, many deposit insurers may invest in domestic sovereign bonds only. Given the developing state of the market for climate-related financial products and its concentration on three currencies only, this heavily restrains deposit insurers' ability to establish a climate-related fund management.
- When putting a possible climate investment policy into practice, most deposit insurers would aim at investing in green sovereign bonds. Views on future use by deposit insurers of green taxonomies are still developing.

## Table of Contents

<b>1</b>	<b>INTRODUCTION</b> .....	<b>3</b>
1.1	The IADI standard for deposit insurance fund management.....	3
1.2	Possible motivations for incorporating climate in deposit insurer fund management .....	4
1.2.1	Financial risk management.....	4
1.2.2	Reputational risks.....	4
1.3	Growing international relevance of climate considerations.....	5
1.3.1	By other financial safety net participants .....	5
1.3.2	Climate in financial market products.....	8
1.4	Summary .....	11
<b>2</b>	<b>DEPOSIT INSURERS’ FUND MANAGEMENT AND CLIMATE AS FINANCIAL RISK</b> .....	<b>11</b>
2.1	Taking stock.....	11
2.2	Confidence in existing risk management practices.....	12
2.3	Summary .....	12
<b>3</b>	<b>DEPOSIT INSURERS’ FUND MANAGEMENT AND CLIMATE AS A REPUTATIONAL RISK</b> .....	<b>13</b>
3.1	Taking stock.....	13
3.2	Outlook and expectations.....	14
3.3	Risks identified by deposit insurers .....	15
3.4	Legal and practical challenges.....	16
3.5	Summary .....	17
<b>4</b>	<b>CONCLUSIONS</b> .....	<b>18</b>
<b>5</b>	<b>REFERENCES</b> .....	<b>19</b>

## Table of Figures

Figure 1: Green Bonds Issuance.....	8
Figure 2: Volume (LHS) and denominated currency (RHS) of sovereign ESG related bonds (end 2021) .....	9
Figure 3: Large ESG Funds Mixed vs S&P 500 in 2022 .....	10
Figure 4: Monthly estimates of investors' willingness to pay for ESG funds.....	10
Figure 5: Share of deposit insurers explicitly considering the following climate risks when managing funds.....	12
Figure 6: Confidence in risk management practices taking sufficient account of climate risks when managing funds	12
Figure 7: Reasons why deposit insurers currently see convincing reasons to consider climate issues beyond traditional financial risk management.....	14
Figure 8: Expectations by deposit insurers on developing a climate investment policy in the next two years .....	14
Figure 9: Risks of climate investment policies identified by deposit insurers .....	15
Figure 10: Asset classes available for investment to deposit insurers (in %) .....	16
Figure 11: Most likely options if a climate policy were to be considered (in %) .....	17

## Boxes

Box 1: Case Study – AMF, Québec (Canada).....	13
Box 2: Case Study – FGDR, France .....	13

# 1 Introduction

Climate change and the risks associated therewith to financial stability are increasingly being considered by global financial standard setters and networks.<sup>1</sup> For deposit insurers as well, this topic is of strategic interests. A number of IADI publications have shed light on how climate change related issues and risks may impact the business of deposit insurers.<sup>2</sup>

For reasons of geography as well as given the exact powers of deposit insurers, the scale and degree to which climate change affects deposit insurers may vary significantly. Nevertheless, we previously identified five challenges that climate change may pose to deposit insurers. These include: (1) operational risks, (2) financial stability risks, (3) bank default risks and net resolution costs, (4) supervision and (5) fund management by deposit insurers.<sup>3</sup>

All deposit insurers – irrespective of their mandate – are expected to have available an ex-ante fund, typically financed through contributions of member banks. Such funding arrangements should be clearly defined and established in law or regulation.<sup>4</sup> As a consequence, deposit insurers play a pivotal role in fund management activities.<sup>5</sup>

In the remainder of section 1, the paper sets out applicable IADI standards for deposit insurers when managing their funds. It also explains how climate issues may impact this investment strategy for financial or reputational reasons and offers background on the increased relevance of climate considerations, both generally in financial markets and for financial safety net participants in particular.

Based on survey amongst deposit insurers, in section 2, we investigate the degree in which deposit insurers incorporate climate as a financial risk factor when managing their funds. In section 3, we examine the consideration of climate issues by deposit insurers when managing funds for reasons beyond financial risk management. We take stock of existing practice as well as of deposit insurers' expectations as to future developments. We also identify factors that may hinder the consideration of climate issues for reputational reasons from a legal and practical perspective. We close with a conclusion.

This paper makes no attempt at assigning preference to any given fund management strategy. Individual deposit insurers are best placed to understand and incorporate jurisdiction-specific factors in determining which strategy best meets their objectives. The International Association of Deposit Insurers supports its members through informational gathering exercises such as that presented in this report.

## 1.1 The IADI standard for deposit insurance fund management

Deposit insurers should manage their fund in such a manner that they are capable of meeting contingent liabilities with high probability. The IADI Core Principles expect deposit insurers to have responsibility for the sound investment and management of their funds, stressing the importance of safety and liquidity.

Deposit insurers should have a defined investment policy for their funds that aims at ensuring both:

- (a) the preservation of fund capital and maintenance of liquidity; and
- (b) adequate risk management policies and procedures, internal controls, and disclosure and reporting systems.<sup>6</sup>

The IADI Handbook<sup>7</sup> notes that deposit insurers' investment policy must emphasise safety and liquidity over returns. It is important for deposit insurers to have prompt access to funding so as to quickly reimburse all insured depositors. For this reason, deposit insurers often invest funds in government securities that are safe and liquid. Funds should not be

---

<sup>1</sup> This includes the Financial Stability Board (FBS), International Monetary Fund (IMF), Network for Greening the Financial System (NGFS) and the World Bank Group.

<sup>2</sup> Van Roosebeke & Defina (2021); Van Roosebeke & Defina (2021a); Van Roosebeke & Defina (2022); Van Roosebeke & Defina (2022a)

<sup>3</sup> For more detail: Van Roosebeke & Defina (2021a)

<sup>4</sup> IADI Core Principle 9

<sup>5</sup> Such fund management activities are outsourced by some deposit insurers.

<sup>6</sup> IADI Core Principle 9, Essential Criteria 6

<sup>7</sup> IADI (2016)

materially invested in high-risk instruments or products with volatile returns or in significant amounts in banks covered by the DIS.

In addition, the IADI Handbook is cautious about deposit insurer funds being held abroad. This should be considered only when immediate and unfettered access to these funds is guaranteed. Holding titles by foreign issuers may thus be generally possible, as long as the above conditions are met.<sup>8</sup>

The IADI standards are silent on incorporating climate (or even broader ESG<sup>9</sup>-focussed) considerations into the investment policy of deposit insurers. It is therefore asserted that incorporation of climate risks would not adversely impact on compliance with relevant IADI Core Principles provided no negative impacts on fund safety and liquidity are expected, and that adequate risk management policies (which require the consideration of climate risks, if relevant) remain in place. In the following, we explain in more detail the potential motivation for incorporating climate considerations into the investment policies of deposit insurers.

## **1.2 Possible motivations for incorporating climate in deposit insurer fund management**

### **1.2.1 Financial risk management**

The Core Principles require implementation of adequate risk management policies when managing deposit insurer funds. If climate is seen as a relevant risk factor for fund management, it should be adequately incorporated in risk management policies to appropriately manage tail risks and ensure the safety and liquidity of investments.

Climate-related risks may materialise and impact on the value of assets or on financial stability as a physical risk through gradual changes in climate or adverse weather events such as storms or floods; and as transition risk through adjustments to climate change such as carbon pricing, product regulations or technological innovations. Liability risk resulting from parties being held liable for environmental damage is particularly relevant for insurance firms offering cover for such risk.

The relevance of these climate-related risks to a deposit insurer's fund management will likely vary and depend on a set of variables, ranging from geography and domestic climate policy to the deposit insurer's discretion in investing in different sets of financial instruments.

### **1.2.2 Reputational risks**

In addition to managing financial risks, deposit insurers may also consider the reputational risks associated with their investment activities. In a survey on "sustainable and responsible investment" (SRI) by central banks, respondents repeatedly cited reputational risk as the key motivator for engaging in SRI practices.<sup>10</sup>

Although subject to regional differences, deposit insurers may be subject to similar risks. These can range from increasing pressure over time for disclosure on climate-related exposure of the deposit insurer's fund to pressure to disinvest from certain industries or outright bans on investment in certain assets or sectors. If such pressure were exerted by the general public, deposit insurers may consider incorporating the investment policy into public awareness campaigns. The majority of deposit insurers globally<sup>11</sup> are administered by public institutions, which is expected to increase these pressures. At the same time, pressure from member banks – those financing the deposit insurer's fund – may also be relevant in some cases.

For all of these reasons, deposit insurers may wish to diversify their portfolio to assist in meeting objectives beyond their traditional mandate. These tend to fall under the banner of 'social obligations' and can additionally be motivated by political pressures, public relations agendas and/or viewed as legitimate attempts at virtuosity. In any case, such policies should not compromise the deposit insurer's ability to deliver on its objectives.

---

<sup>8</sup> Risks associated with holding titles issued by foreign issuers may include liquidity or exchange rate risks. Whether or not these risks are higher as compared to holding domestic titles requires a case-by-case assessment.

<sup>9</sup> ESG refers to Environmental, Social and Governance considerations.

<sup>10</sup> NGFS (2020)

<sup>11</sup> According to the 2022 IADI Annual Survey, only 30% of deposit insurers are administered by private institutions.

## 1.3 Growing international relevance of climate considerations

### 1.3.1 By other financial safety net participants

Risks relating to climate change are increasingly in the focus of financial safety net participants. Efforts on increasing the consideration of climate risks are being stepped up globally. In the following, we offer some examples of actions by non-deposit insurers within the financial safety net. In doing so, we distinguish between action broadly related to financial supervision and other actions of a more activist and discretionary nature. We do acknowledge that boundaries between both may at times be blurred.

#### Financial supervision

- *Basel Committee on Banking Supervision*

In June 2022, the Basel Committee has provided extensive guidance on how climate-related financial risk can be managed and supervised. The aim of this guidance is to both improve the risk management of climate risks by banks, and the supervision practices of these risks by authorities. The guidance provides for 18 principles covering amongst others bank internal governance, controls, risk management, reporting, capital and liquidity matters.<sup>12</sup> More recently, in December 2022, the Basel Committee has published a list of responses to frequently asked questions on how climate-related financial risks may be captured in the existing Basel Framework.<sup>13</sup>

- *Financial Stability Board and Network for Greening the Financial System*

FSB climate risk initiatives have focussed on research and the development of policy documentation.<sup>14</sup> Central is the FSB Roadmap for Addressing Climate-related Financial Risks. It aims at promoting international coordination between standard-setting bodies, the Network for Greening the Financial System (NGFS) and other relevant international organisations. Four main areas constitute the roadmap's focus: disclosures; data; vulnerability analysis; and regulatory and supervisory practices and tools. The most recent deliverable falling under this programme was a November 2022 joint report with the NGFS on climate-related scenario analysis.<sup>15</sup>

- *Federal Reserve Board, and Office of the Comptroller of the Currency*

The Fed has recently initiated a public consultation process inviting comments on proposed principles providing a high-level framework for the sage and sound management of exposures to climate-related financial risks for large banking organisations. These cover governance; policies, procedures and limits; strategic planning; risk management; data, risk measurement and reporting; and scenario analysis. Proposed principles are broadly aligned with earlier proposals of the Office of the Comptroller of the Currency (OCC) and Federal Deposit Insurance Corporation (FDIC).<sup>16</sup> It should be noted that the board vote on this issue was not unanimous. Governor Waller (voting against) released a statement clarifying: "... Climate change is real, but I disagree with the premise that it poses a serious risk to the safety and soundness of large banks and the financial stability of the United States ...". Complementing this initiative, in September 2022 it was announced that a small group of large banks in the United States would participate in a pilot climate scenario analysis exercise.<sup>17</sup> This is the first endeavour of this kind and demonstrates broader focus on the topic as a priority area moving forward.

The OCC has in recent times made significant strides on the climate risk space through the establishment of a Chief Climate Risk Officer role within their organisation. This individual will lead the agency's climate risk efforts related to supervision, policy, and external engagement. Such an appointment reiterates a long-term structural role for climate risk management within OCC operations. The Fed has established the Supervision Climate Committee and the Financial Stability Climate Committee, analysing climate-related risks from a micro- and macro-prudential perspective

---

<sup>12</sup> Basel Committee on Banking Supervision (2021)

<sup>13</sup> Basel Committee on Banking Supervision (2021a)

<sup>14</sup> Further information: <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/climate-related-risks/>

<sup>15</sup> FSB & NGFS (2022)

<sup>16</sup> Federal Reserve (2022)

<sup>17</sup> Federal Reserve (2022a)

respectively. In October 2022 (following its 2021 Report on Climate-related financial risks<sup>18</sup>), the Financial Stability Oversight Council established the Climate-related Financial Risk Advisory Committee (CFRAC).

- ***European Central Bank***

The European Central Bank (ECB) carried out climate risk stress testing exercise among significant institutions in 2022, as part of its annual stress testing regime. It sought to assess: “(1) the progress banks have already made in developing climate risk stress-testing frameworks; (2) the capacity of banks to produce climate risk factors, an intermediate step towards developing climate risk stress test estimates; (3) the capacity of banks to produce climate risk stress test projections; (4) the risks banks are facing in the form of transition risks (both short-term and long-term) and acute physical risk events”. Results from this exercise indicate that “Climate risks are relevant for the large majority of significant institutions directly supervised by the ECB” and that whilst “considerable progress” has been made with respect to their climate stress-testing capabilities, “many deficiencies, data gaps and inconsistencies across institutions” remain.<sup>19</sup>

- ***Bank of Canada and Office of the Superintendent of Financial Institutions***

In 2020, the Bank of Canada established their Climate Scenario Analysis Pilot in collaboration with the Office of the Superintendent of Financial Institutions (OSFI) to “build the capability of authorities and financial institutions to conduct climate transition scenario analysis; support the Canadian financial sector in improving its assessment and disclosure of climate-related risks; and help the financial sector to better understand its potential exposure to climate transition risks”.<sup>20</sup> A final report was published in 2022 detailing lessons learned and next steps.

- ***Bank of Japan***

A significant milestone for the Bank of Japan in the climate risk space has been the establishment in 2021, of its climate coordination hub and the adoption of a Strategy on Climate Change. This publicly available policy formalised the Bank of Japan’s “...intention of furthering its efforts on climate change consistent with its mandate of achieving price stability and ensuring the stability of the financial system”.<sup>21</sup> Four key measures were highlighted as falling within the scope of this objective: monetary policy; financial system; research; and international finance.

## **Other actions**

- ***Bank for International Settlements***

The BIS has launched three green bond funds – two in 2019 and the third in 2021, with a focus on Asia – which provides an opportunity for central banks to invest in green bonds. In total the BIS manages USD 3.5 billion in these bonds. The initiative is part of a broader BIS commitment to supporting environmentally responsible finance and investment practices in line with their participation in the Central Banks and Supervisors Network for Greening the Financial System. Whilst not explicitly targeted at the needs of deposit insurers, it offers an insight into the central banking community’s views of sustainable investing as an area of strategic relevance moving forward.

- ***European Central Bank***

The ECB and central banks of Eurozone Member States have taken a number of policy decisions aimed at incorporating climate related issues into their monetary policy and activities. In July 2022, the ECB set out a number of climate-related measures. The ECB expressly linked these measures to the secondary objective of its mandate.<sup>22</sup> Their aim is to “support the green transition of the economy in line with the EU’s climate neutrality objectives. Moreover, our measures provide

---

<sup>18</sup> Financial Stability Oversight Council (2021).

<sup>19</sup> ECB (2022)

<sup>20</sup> Bank of Canada & OSFI (2022): <https://www.bankofcanada.ca/wp-content/uploads/2021/11/BoC-OSFI-Using-Scenario-Analysis-to-Assess-Climate-Transition-Risk.pdf>

<sup>21</sup> Bank of Japan (2021): [https://www.boj.or.jp/en/about/release\\_2021/rel210716b.pdf](https://www.boj.or.jp/en/about/release_2021/rel210716b.pdf)

<sup>22</sup> The ECB’s mandate is to maintain price stability (primary objective) and – without prejudice to this objective – it shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union (Art. 127 TFEU). The ECB has recently stressed that this (“shall support”) amounts to an obligation to support the EU’s general economic policies (here: the green transition) if not at the expense of its primary objective [ECB(2023)].

incentives to companies and financial institutions to be more transparent about their carbon emissions and to reduce them.”<sup>23</sup>

The ECB has announced it will:

- Adjust its corporate bond portfolio to increase the share of assets of corporates with a better climate performance. The latter will be measured by corporates’ greenhouse gas emissions, carbon reduction targets and climate-related disclosures. Initially this has been limited to reinvestments of due holdings. However, against the background of its recent decision to stop net purchases, and subsequent declining reinvestments, in January 2023, the ECB advocated to actively reshuffle the stock of its portfolio towards more climate friendly assets.<sup>24</sup> In addition, the ECB has hinted it could invest more strongly in green bonds issued by supranational institutions.
- By the end of 2024, limit the share of assets issued by entities with a high carbon footprint that can be pledged as collateral by individual counterparties when they borrow from the Eurosystem. In addition, it has announced to consider, already in 2022, climate-related risks when determining haircuts for corporate bonds that serve as collateral. To improve data availability, as of 2026, marketable assets can serve a collateral only when issuers comply with the EU’s Directive on Corporate Sustainability Reporting.

For example, since 2018 Banque de France has managed its own investments and pension funds (EUR 22 billion) through an approach that minimises carbon impacts. By end 2024, the Banque de France will no longer be invested in corporates with coal-related activities. The same goes for oil (if more than 10% of any given corporate’s turnover) and gas (if more than 50%).<sup>25</sup>

#### • *Bank of Japan*

The Bank of Japan (BoJ) has stressed the link between climate related action and its mandate, noting that if “central banks’ actions can help to smooth the transition to net zero, this will contribute to price stability in the medium to long term.” At the same time, it has stressed the importance of market neutral behaviour. However, this does not necessarily exclude central bank action in the field of climate if private actors start internalising the climate related negative externalities.<sup>26</sup>

In 2021, the BoJ has initiated “Climate Response Financing Operations” that provide for zero interest central bank funding for investments and loans by financial institutions that address climate change. As of January 2023, the total outstanding balance of these loans disbursed by the BoJ is YEN 4.4 trillion (approx. USD 32 billion)<sup>27</sup>. Market neutrality is safeguarded as the BoJ does not check individual investments and loans made by financial institutions, but requires demonstration of climate efforts through disclosure, amongst others on targets and actual results from their investments or loans.

#### • *Bank of Canada*

The Bank of Canada has started efforts to green its pension fund, by integrating environmental, social and governance (ESG) principles into its management. Currently, the Bank is developing practical steps to integrate ESG considerations into investment decisions and reporting, while upholding fiduciary duties.<sup>28</sup>

---

<sup>23</sup> European Central Bank (2022a)

<sup>24</sup> European Central Bank (2023)

<sup>25</sup> [https://www.banque-france.fr/sites/default/files/medias/documents/cp\\_politique\\_dinvestissement\\_responsable.pdf](https://www.banque-france.fr/sites/default/files/medias/documents/cp_politique_dinvestissement_responsable.pdf)

<sup>26</sup> BOJ Deputy Governor Amamiya: “If private-sector investments and loans were made taking the negative externalities of greenhouse gas emissions into account, central bank asset purchases and funds-supplying measures in line with those private-sector investment and loan portfolios would be more neutral toward the private-sector transition to net zero. Moreover, as mentioned earlier, firms and financial institutions are currently trying to internalise the negative externalities by becoming more proactive in addressing climate change. From a forward-looking perspective, supporting such developments would preserve market neutrality.” – Amamiya (2022)

<sup>27</sup> <https://www.boj.or.jp/en/statistics/boj/other/mbt/mbt2301.pdf>

<sup>28</sup> Further information: <https://www.bankofcanada.ca/2021/10/climate-change-bank-of-canada/>

- **Federal Reserve Board**

Just recently, in January 2023, Federal Reserve Chairman Powell signalled the Fed is likely to confine the incorporation of climate risk to matters of bank supervision. He pointed out that the Fed’s mandate to deal with climate-related financial risks is “tightly linked” to the Fed’s bank supervision responsibilities.

Pointing at differences between the mandates of central banks in the US, UK and EU, he stressed that “without explicit congressional legislation, it would be inappropriate for us to use our monetary policy or supervisory tools to promote a greener economy or to achieve other climate-based goals.”<sup>29</sup>

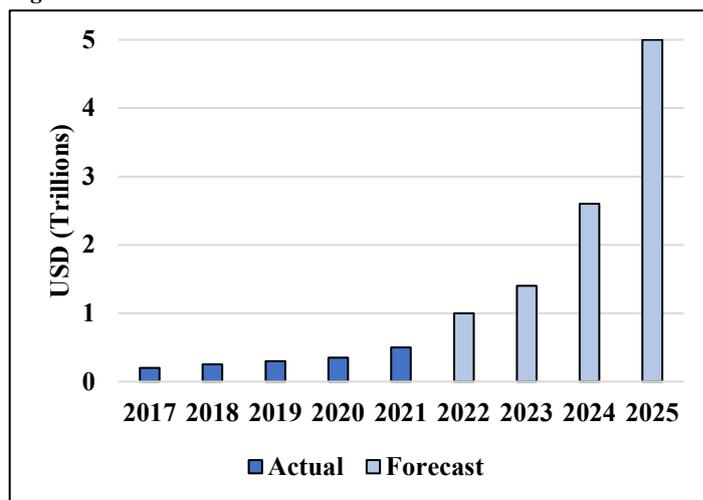
### 1.3.2 Climate in financial market products

**Over the last five years, markets for sustainable finance have experienced consistent growth.** The volume of assets related to ESG (Environmental, Social and Governance) grew from USD 22.8 trillion in 2016 to USD 35 trillion in 2020, and is expected to reach USD 50 trillion by 2025. This would equate to one-third of assets under management globally. The vast majority of these assets are located in Europe and the United States.<sup>30</sup>

**As a subset of ESG assets, ESG-related debt markets are growing rapidly and are generally expected to do so further.** Estimates as to their current size range from USD 2.9 trillion (for “green, social and sustainability bonds”, June 2022)<sup>31</sup> to USD 4 trillion (for ESG debt markets, January 2022)<sup>32</sup>. Growth forecasts are for ESG debt markets to reach USD 15 trillion by 2025.<sup>33</sup> Forecasts for the further subset of green bond issuance<sup>34</sup> are also undeniably bullish, with annual growth expected around the 50% mark throughout the medium-long term.

**The share of ESG related bonds in the overall bonds market is still very low, but growing.** As of 2022 (over all issuer classes), green, social and sustainable bonds account for approximately 2.5% of outstanding bonds volumes.<sup>35</sup> This share is set to rise – 5% of sovereign debt issued by central governments and 8% of corporate bonds have been ESG related over the past 2 years. The ESG share of bonds issued by international financial institutions is markedly higher, comprising a 30% share of volumes issued since 2020.<sup>36</sup>

Figure 1: Green Bonds Issuance



**The share of sovereign issuers in ESG related bond markets is small but growing. Including other public issuers, the share is considerable.** This fact is relevant, as a large share of deposit insurers do not invest in commercial bonds. Most of the initial issuers of ESG related bonds were corporates, but the share of sovereign issuers (i.e. central government) has grown from 4% in 2020 to 7.5% in mid-2022. Including other public issuers such as supranational organisations (mainly: World Bank, development banks and the European Union), local governments and government owned or supported entities, the share raises to about 30% of outstanding volumes.<sup>37</sup>

<sup>29</sup> Powell (2023)

<sup>30</sup> Henze & Boyd (2022)

<sup>31</sup> Cheng, Ehlers and Packer (2022)

<sup>32</sup> Henze & Boyd (2022)

<sup>33</sup> Ibid.

<sup>34</sup> Chart adjacent is sourced from the Climate Bonds Initiative 2022 / Jones (2022): <https://www.climatebonds.net/2022/01/500bn-green-issuance-2021-social-and-sustainable-acceleration-annual-green-1tn-sight-market>

<sup>35</sup> [BIS Statistics Explorer: Table C1](#) for the size of total bonds markets.

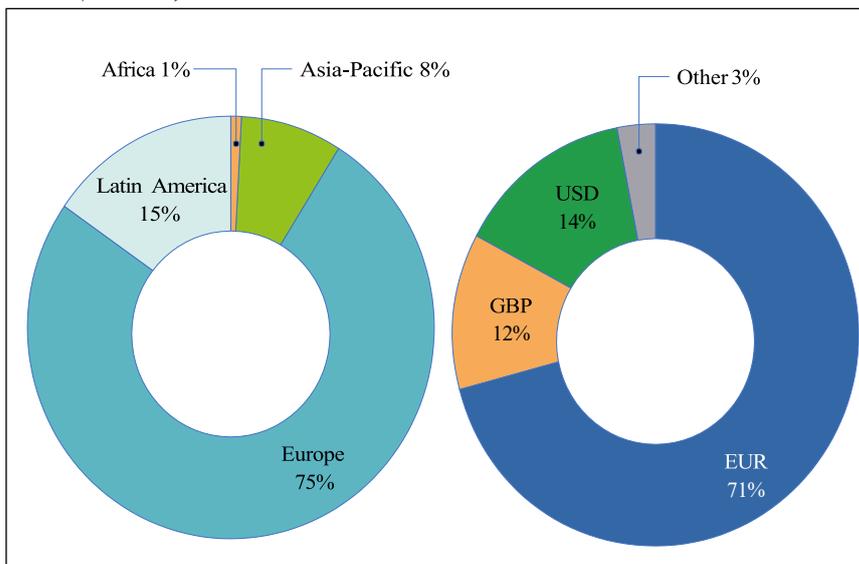
<sup>36</sup> Henze & Boyd (2022)

<sup>37</sup> BIS Sustainable bonds database and Climate Bonds Initiative ([Market Data | Climate Bonds Initiative](#)).

**Green bonds are the most relevant type of ESG related bonds.** Of all ESG related bonds, green bonds make up 75% of outstanding volumes. The social bonds market – where public issuers’ market share has recently been as high as 80%<sup>38</sup> – has grown strongly lately, which may be partially due to growing social needs during the pandemic.

**There is a significant regional divide between sovereign issuers of ESG related bonds.** As of end 2021, 39 central governments globally have issued sovereign ESG related bonds.<sup>39</sup> 84% of the volumes relate to green bonds. The total volume of central government sovereign ESG bonds is issued in only 17 currencies, with 97% of this volume being issued in Euro (71%), USD (14%) and GBP (12%). Issuance is mainly by governments from Europe (75% of volume). Latin-America (15%) and Asia-Pacific (8%) account for smaller shares of the market.<sup>40,41</sup>

*Figure 2: Volume (LHS) and denominated currency (RHS) of sovereign ESG related bonds (end 2021)*



#### World Bank Debt Management Office survey

The World Bank Group conducted a 2022 quantitative survey of 32 debt management offices (DMOs) in emerging markets and developing economies. Results from this initiative signalled a likely increase in issuance of instruments expected to include sustainability-linked bonds. However, the recent deterioration in macroeconomic conditions may hinder this progression somewhat.

“Based on the DMO survey, emerging market sovereign thematic issuances are set to rise, subject to market conditions. Most surveyed countries are considering sovereign thematic bond transactions and preparing for such issuances. DMOs’ reasons for considering thematic bond issuances are similar to the motivations that lead investors to seek emerging market sovereign thematic bonds. Both sides see such bonds as a diversification tool for their investor base in the case of countries and their portfolios in the case of investors”.<sup>42</sup>

<sup>38</sup> Cheng, Ehlers and Packer (2022)

<sup>39</sup> Climate Bonds Initiative lists the following sovereign issuers: Andorra, Belgium, Benin, Chile, Ecuador, Egypt, France, Fiji, Germany, Guatemala, Hong Kong, Hungary, Indonesia, Ireland, Isle of Man, Italy, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Nigeria, Peru, Poland, Serbia, Seychelles, South Korea, Slovenia, Spain, Sweden, Thailand, United Kingdom and Uzbekistan.

<sup>40</sup> Climate Bonds Initiative (2021)

<sup>41</sup> Note that the USA and China hold a significant share of ESG related bond issuance, but this relates mainly to issuers from the private sector.

<sup>42</sup> World Bank Group (2022)

**ESG fund performance**

ESG funds have become increasingly available over the last five years, but recently, they have been often outperformed by conventional funds.

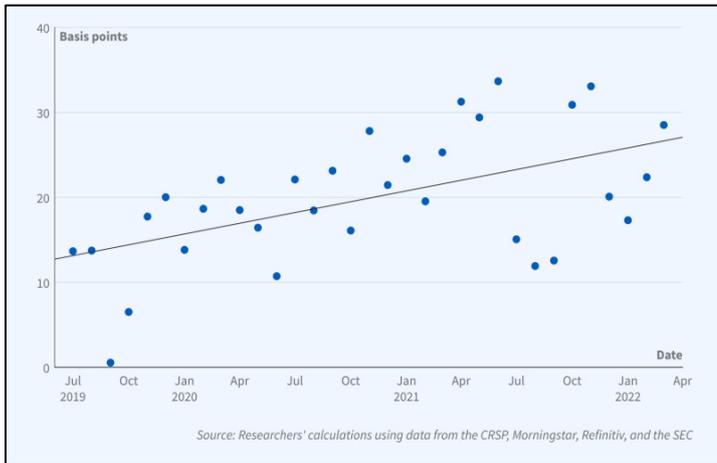
Attention has turned to their performance relative to aggregate market indices and other funds without ESG-compliant credentials. There are mixed views on this matter, with many dismissive of bullish ESG performance projections.<sup>43</sup> This is important from the perspective of deposit insurers as any yield generated on DI fund capital can complement bank failure interventions, and conversely losses constrain such action(s).

2022 was a challenging year for fund yields generally, with most absorbing double-digit losses (in part) due to continued global supply chain disruptions and diminishing sentiment among households and corporates. ESG funds performed poor even after adjusting for this broader context. The S&P 500 lost nearly fifteen percentage points throughout 2022. Eight of the ten largest ESG funds (by assets underperformed index) were outperformed by the S&P 500 during this period, reflected in the chart adjacent.<sup>44</sup>

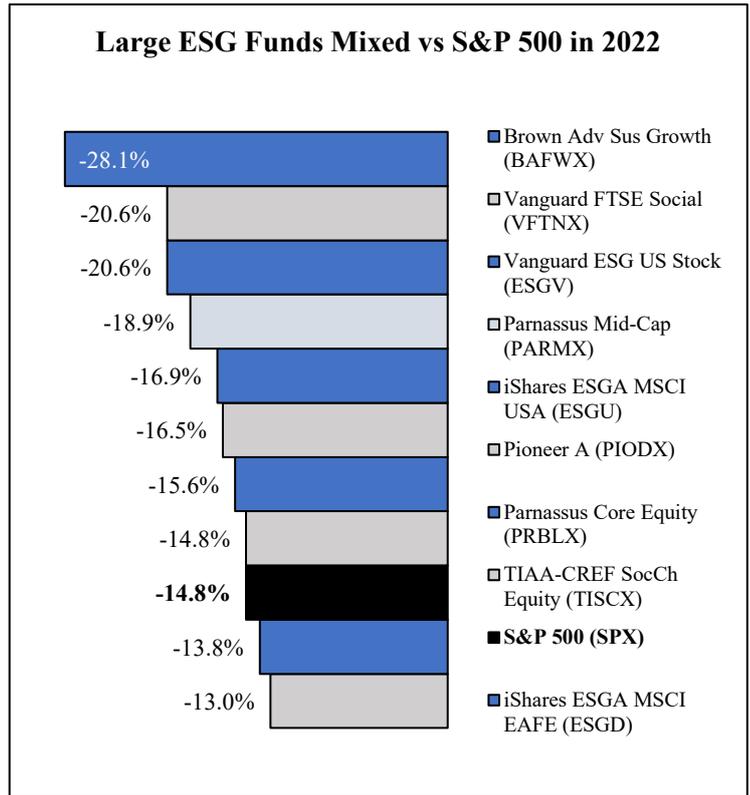
**Investor willingness to pay**

Investors appear to be increasingly willing to pay for ESG funds. Findings from a recent NBER paper suggest that investors "... are willing to pay 20 basis points more per year in fees – 0.2 percent of their assets invested in the fund – to invest in an ESG rather than a non-ESG fund".<sup>45</sup>

**Figure 4: Monthly estimates of investors' willingness to pay for ESG funds**



**Figure 3: Large ESG Funds Mixed vs S&P 500 in 2022**



This is relevant to the deposit insurer for at least a couple of reasons. Firstly, it signals interest among financial sectors actors to fund ESG priorities, rather than simply talk about the virtues of such endeavours. Depending on the perspective taken, such a trend may underline reputation risks for deposit insurers when not considering climate in fund management; or may be seen as strengthening deposit insurer’s ability to successfully manage public relations issues likely to emerge should they commence investing in ESG-compliant equities. Secondly, it implicitly offers a read on future expectations of ESG fund markets. Should investor willingness continue to grow in line with observed trends, ESG investing will likely increase in relevance within the financial sector.

<sup>43</sup> Bhagat (2022); Hartzmark & Sussman (2019); Cornell (2020)

<sup>44</sup> Quinson (2022); data sourced from Bloomberg and measures total returns through 5 December 2022

<sup>45</sup> Baker et al. (2022)

## 1.4 Summary

- The IADI Core Principles as international standard for deposit insurance demand for safe and liquid management of funds. Safe management requires the consideration of all relevant risks. This includes climate related financial risks to the deposit insurer's funds, where found relevant. In addition to financial risks, when managing funds, the consideration of climate-related issues by deposit insurance may also warranted given reputational risks. The relevance of such risks is likely to be heavily dependent on jurisdiction-specific characteristics.
- A number of participants in the financial safety net have started incorporating climate issues in their activities. Internationally, supervisory policy and action in the field aims at incorporating financial risks of climate change. In addition, we also identified a number of central banks whose incorporation of climate issues seems to go beyond managing financial risks only. Asset purchasing, fund management, lending, and collateral policy of these institutions seem to reflect reputational risk concerns and aims to support wider policy goals, including easing the transition to a net-zero emissions economy. While the mandates of central banks and the degree of discretion their action is typically subject may differ substantially from those of deposit insurers, these cases may serve as an example for the increasing relevance of the climate incorporation in activities of safety net participant.
- Financial markets for climate-related products and green bonds markets in particular have grown significantly in recent years. Although growing, the share of such bonds in overall bonds markets as well as the share of sovereign issuers (excluding supranational issuers) is still low. Further complicating investment by deposit insurers in these green bonds is the fact that their issuance is geographically confined and heavily concentrated in Euro and USD.

## 2 Deposit insurers' fund management and climate as financial risk

Even though there is growing consensus within financial safety nets on the relevance of climate related financial risks, little is known on the incorporation of these risks by deposit insurers, when managing funds. This is not very surprising, given the topic's relative infancy. For this reason, IADI has sought to provide an early overview of this topic to serve as an information gathering exercise for stakeholders. This was achieved through the 2022 Survey of Deposit Insurers' Consideration of ESG Issues and the Role of Climate in Fund Management held among IADI members in 2022Q3. Responses were received from 43 organisations, representing approximately 45% of the total IADI membership.<sup>46</sup>

### 2.1 Taking stock

The literature on climate-related financial stability risks typically distinguishes between physical risks (resulting from economic costs and losses associated with the exposure of infrastructure and/or people to climate-related hazards, e.g. adverse weather events), transition risks (associated with the financial impact resulting from a transition to a low-carbon economy which may be driven by changes in technology, in consumer preferences or in regulation) and liability risks (resulting from companies being held liable for environmental damage). These risks may affect sovereigns, financial institutions, corporates and households through materialising into traditional risk categories such as credit risk, market risk, operational risk, and liquidity risk.

**We find that the vast majority (72.5%) of deposit insurers do not explicitly incorporate climate risks in their risk management frameworks when managing funds** (Figure 5). Only one in eight responding deposit insurers explicitly take into account liability, transition or physical risks in some form.

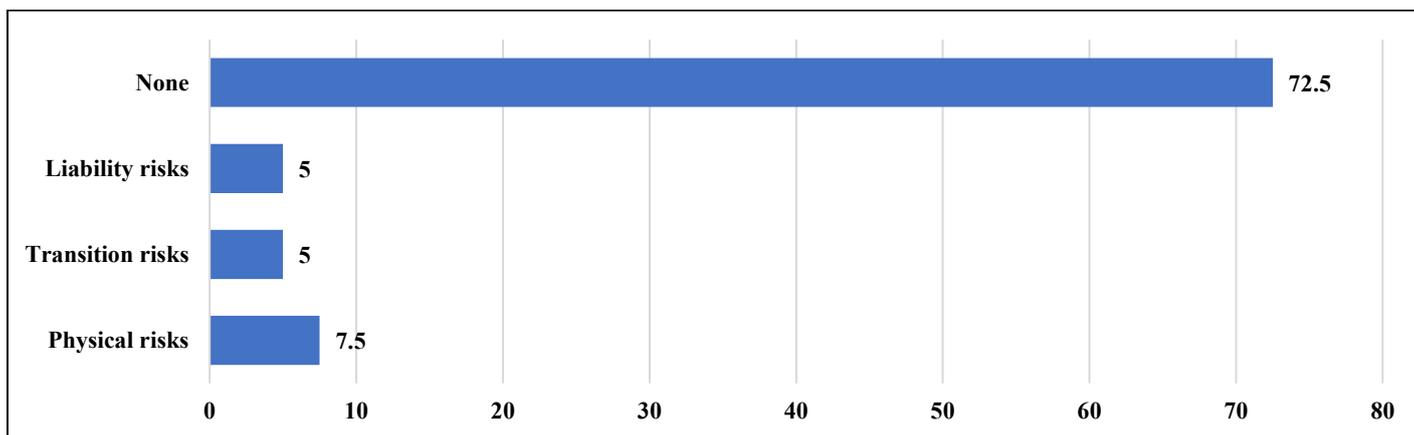
Interestingly, a number of survey participants explain the absence of explicit consideration of climate risks by the fact that they are allowed to invest in sovereign bonds (or similar) only. This reveals an implicit assumption that these risks are irrelevant to sovereign liabilities. Although the impact of climate risks on corporate debt issuers is likely to be far superior, and sovereigns may be affected to varying degrees, there is a growing body of literature stressing the relevance of climate risks to sovereign debt as well.<sup>47</sup>

---

<sup>46</sup> Van Roosebeke & Defina (2022) provide further background on this survey initiative and the representativeness of the sample.

<sup>47</sup> See Volz et al. (2020) for Southeast Asia; Zenios (2021) for Europe; and Cevik & Jalles (2020) using a sample of 98 advanced and developing jurisdictions.

Figure 5: Share of deposit insurers explicitly considering the following climate risks when managing funds<sup>48</sup>

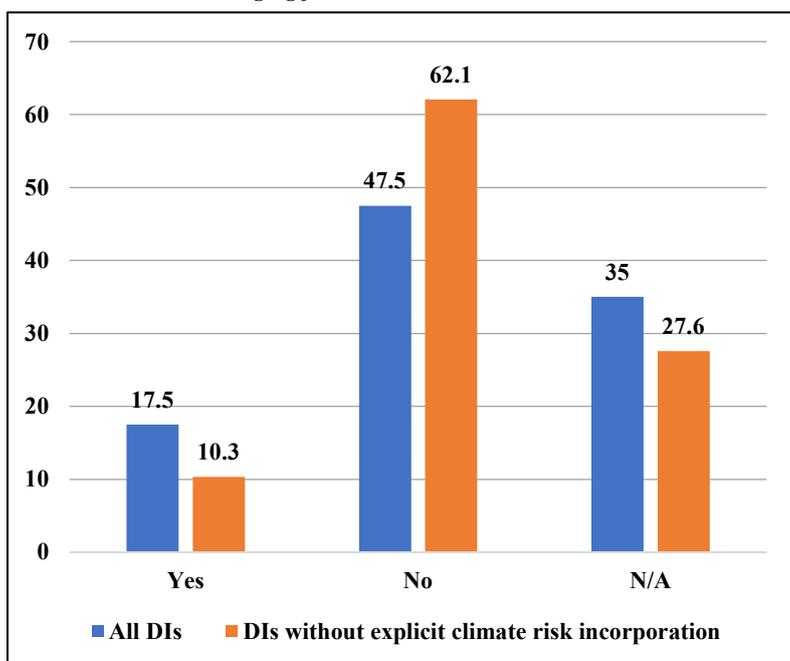


Source: 2022 IADI Survey on Deposit Insurers' Consideration of ESG Issues and the Role of Climate in Fund Management

## 2.2 Confidence in existing risk management practices

Building on the finding that most deposit insurers do not explicitly take into account climate risks upon managing funds, survey participants were asked about their confidence in existing approaches to capturing climate risks.

Figure 6: Confidence in risk management practices taking sufficient account of climate risks when managing funds



Source: 2022 IADI Survey on Deposit Insurers' Consideration of ESG Issues and the Role of Climate in Fund Management

About half (47.5%) of survey participants report that climate risks may not be captured sufficiently when managing funds; this share raises to one in six (62.1%) amongst those not explicitly incorporating these risks. Less than one in five of deposit insurers (17.5%) are confident that they take sufficient account of climate risks when managing funds. Amongst deposit insurers that do not explicitly incorporate climate risks when managing funds, this share falls to 10.3%. A significant share of one third did not answer.

A substantial share of deposit insurers are not confident that climate risks are being sufficiently taken into account when managing funds. This goes in particular for deposit insurers that do not explicitly consider these risks. All in all, this can be understood as signalling the need for increased attention towards these risks. However, given the high proportion of non-respondents to this question, conclusions should be drawn with caution.

## 2.3 Summary

Explicit incorporation of climate related financial risks is not common practice amongst deposit insurers when managing funds. At the same time, there seems to be a wide-spread sentiment amongst deposit insurers that financial climate risks are not taken sufficiently into account when managing funds.

<sup>48</sup> Note: Multiple answers possible. Three deposit insurers were excluded from the sample as they do not invest their funds. 12% of participants did not answer.

## 3 Deposit insurers' fund management and climate as a reputational risk

### 3.1 Taking stock

**When managing funds, few deposit insurers take climate (or other ESG) issues into consideration for reasons beyond risk management.** Only ten percent of respondents stated doing so and they mostly (3 out of 4) do so on the basis of financial instrument-based criteria (e.g. green finance products). The Autorité des Marchés Financiers (AMF, Québec (Canada)) and the Fonds de Garantie des Dépôts et de Résolution (FGDR, France) stand out as deposit insurers regarding their consideration of climate when managing funds.

#### *Box 1: Case Study – AMF, Québec (Canada)*

The deposit insurance fund in Québec is administered by the Autorité des marchés financiers (AMF), but asset management functions are outsourced to a public sector entity, the Caisse de dépôt et placement du Québec (CDPQ).

In 2004, this entity became the first investment institution in Canada to adopt a responsible investment policy. In 2005, ESG factors were integrated in CDPQ's investment strategy (which includes investment in private equity, fixed income, real estate, infrastructure and equity markets) and corresponding key performance indicators. In 2021, CDPQ updated its 2017 climate strategy. The [renewed climate strategy](#) now aims at reaching a net-zero portfolio by 2050.

Sub-aims include:

- holding CAD 54 billion in green assets by 2025;
- a 60% reduction in carbon intensity of the portfolio by 2030 as compared to 2017; furthering to the 50% decrease of the portfolio's carbon intensity between 2017 and 2020;
- a CAD 10 billion transition plan aimed at the decarbonisation of industrial high carbon emitters; and
- complete exit from equity tied to oil production by the end of 2022.

The AMF cannot dictate to CDPQ which specific financial instruments or firms are preferred as CDPQ's portfolios are generic. Rather, the AMF determines the percentage of the deposit insurance fund to invest in CDPQ portfolios according to the AMF's risk profile, and may also as an investor raise concerns related to ESG issues to influence the CDPQ. CDPQ is authorised to allocate the deposit insurance fund accordingly to meet these high-level instructions.

#### *Box 2: Case Study – FGDR, France<sup>49</sup>*

The FGDR follows a strategy of “responsible finance operator” and has publicly stated its aim to gradually incorporate environmental, social and governance (ESG) criteria into its investment and management company selection policy. Some of the key elements of the FGDR investment policy include:

- verification during fund management tenders that the service providers selected are signatories of the Principles for Responsible Investment (PRI) defined by the United Nations Organisation (UN);
- determination of the percentage of securities in the portfolio that is eligible for each management company's “socially responsible investment” (SRI) funds;
- excluding (black-listing) investment in companies
  - which do not comply with the UN's Global Compact on sustainable and socially responsible policies (relating to human rights, international labour standards, the environment and corruption);
  - whose use of coal exceeds 5% of the company's business (for a comparable approach, see the Banque de France on page 7);
  - producing or selling controversial weapons.
- Investment only in funds that are classified as “Article 8” funds according to the EU Sustainable Finance Disclosure Regulation (SFDR). Such funds promote environmental and/or social characteristics, can invest in companies with good governance practices only and must disclose information on how they promote these aims and in how far they align with the EU's taxonomy on environmentally sustainable economic activities.

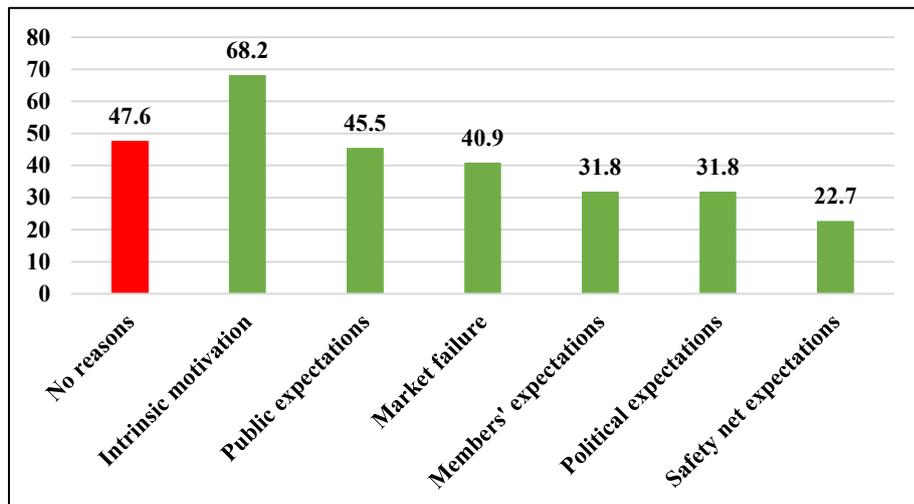
<sup>49</sup> Fonds de Garantie des Dépôts et de Résolution. (2022). [Rapport annuel 2021](#).

### 3.2 Outlook and expectations

Views amongst deposit insurers are split on whether convincing reasons currently exist to consider climate issues beyond traditional financial risk management when managing funds. Half of respondents (47.6%, red in Figure 7) see no convincing reasons in their jurisdiction to do so, whereas 52% do.

Of the latter group, two thirds (68.2%) refer to the deposit insurer’s social responsibility as a reason why climate issues require consideration beyond risk management. Slightly less than half (45.5%; again of the latter group) refer to expectations by the general public or to inadequate pricing of climate risks by the markets (40.9%). About one third refer to expectations by member banks or political bodies to actively consider climate issues. Expectations by other safety net participant are mentioned the least (22.7%).

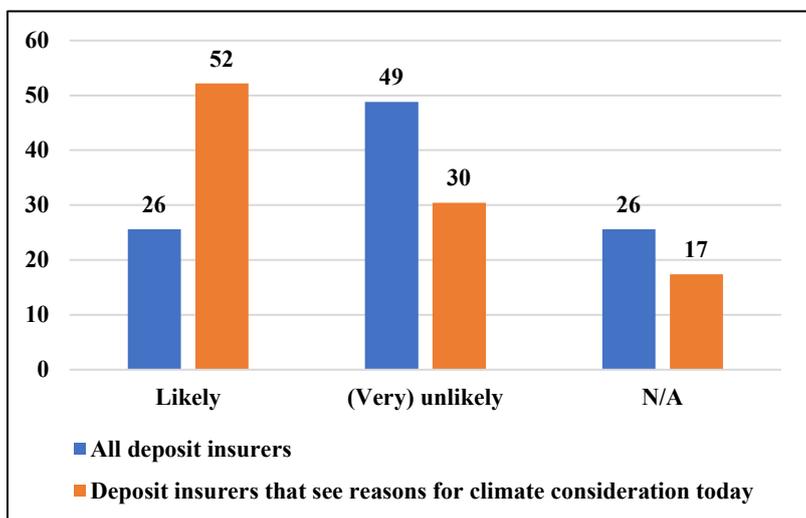
Figure 7: Reasons why deposit insurers currently see convincing reasons to consider climate issues beyond traditional financial risk management



Source: 2022 IADI Survey on Deposit Insurers’ Consideration of ESG Issues and the Role of Climate in Fund Management

The current divide of views amongst deposit insurers on the presence / absence of convincing reasons to consider climate beyond risk management is unlikely to change substantially in two years. Of those not seeing compelling reasons today, 80% does not expect growing pressure to establish a climate investment policy in the coming two years. This makes it unlikely that, two years from now, they will see convincing reasons to consider climate issues beyond risk management when investing.

Figure 8: Expectations by deposit insurers on developing a climate investment policy in the next two years



Source: 2022 IADI Survey on Deposit Insurers’ Consideration of ESG Issues and the Role of Climate in Fund Management

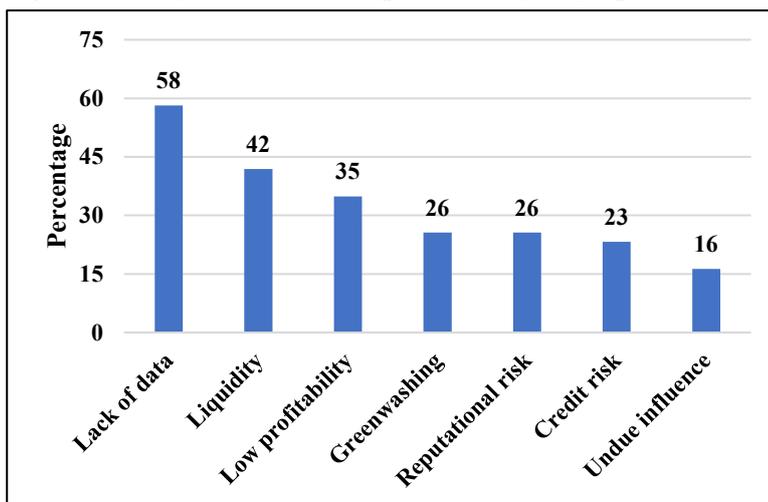
Over all respondents, 56% expect pressure to grow in the next two years. This share rises to 70% amongst those deposit insurers that already see such reasons today. Within that group, the most important additional pressure is expected to occur through expectations by the general public (39%).

Only one in four (26%) deposit insurers expects to adopt an explicit climate investment policy that goes beyond risk management considerations in the next two years (see Figure 8). Expectations are markedly different amongst the 52% deposit insurers that see convincing arguments for climate consideration already today. In this group, about half (52%) expect to develop such a policy in the next two years. Of all respondents, 26% preferred not to answer.

### 3.3 Risks identified by deposit insurers

Numerous risks are present in the climate investment space. Nearly 60% of deposit insurers flagged a lack of information and/or data. This is in line with the findings of a number of standard-setters that have identified significant data-gaps as regards climate related issues. Indeed, the Financial Stability Board has included data as a main workstream in its Roadmap for Addressing Climate-related Financial Risks (see earlier). In addition, in a number of jurisdictions and globally, climate disclosure duties for financial and non-financial corporates are being discussed<sup>50</sup> and taxonomies for identifying the sustainability of economic activities are being developed. The availability of such taxonomies, which may vary significantly between jurisdictions, can be key in offering a common lexicon for collecting and disseminating data. Fundamentally, data availability is essential in that it enables a broader suite of risks to be quantified which may inform future DI decision making.

Figure 9: Risks of climate investment policies identified by deposit insurers



Source: 2022 IADI Survey on Deposit Insurers' Consideration of ESG Issues and the Role of Climate in Fund Management

**Next in terms of ranking among deposit insurers (42% of respondents) are liquidity risks.** These concern uncertainty that may emerge when the deposit insurer wishes to utilise funds in financing resolution activities or reimbursing depositors. Liquidity in this context is focussed on (1) the ease at which the given green financial instrument can be converted into cash, (2) whether short term price volatility might impose unanticipated constraints in resolution, (3) the (if any) costs that might be associated with conversions on relatively short notice, and (4) potential compromising of contingency/resolution planning that may emerge. Each issue differs in importance based on whether investments focus on bonds or equities. Bonds will typically offer more stable returns with minimal default risk (practically zero in case of sovereign bonds and when backed by a central bank), while equities exhibit greater volatility in pricing and valuations.<sup>51</sup> Overall, the emerging nature of markets for climate-related assets (see above) may cause their liquidity to be inferior to the one in conventional markets.

**Profitability concerns were sighted by 35% of respondents.** It is unclear whether these concerns focus on aversion to losses or maximisation of profit. Ex ante assumptions typically lend more weight to the former for the case of deposit insurers, particularly with respect to DI fund exposures being compromised by adverse climate events e.g. major tangible assets associated with a project may be rendered of no value after a catastrophic weather event, slashing the valuation of pegged financial instruments. The authors are unable to determine whether deposit insurers would be willing to accept a lower return on climate related investments, other risks being equal, than with conventional financial instruments.

**Greenwashing does not rank particularly high among deposit insurer risk perceptions.** Greenwashing pertains activities that seek to overstate the climate credentials of a given project. It constitutes a form of fraudulent behaviour that will likely continue to grow as consumer preferences for “green” products and services continue to grow.<sup>52</sup> Whilst the global prevalence of greenwashing has not been particularly well-studied at the time of writing, a 2021 investigation

<sup>50</sup> Especially relevant in this regard are the numerous disclosure duties introduced in the European Union. These include the Corporate Sustainability Reporting Directive (CSRD) for about 50,000 large corporates and the Regulation on sustainability-related disclosures in the financial services sector, covering banks, insurances and investment funds. In some cases, reporting obligations on aligned with the EU Taxonomy on sustainable activities. Globally, of note is the establishment by the International Financial Reporting Standards (IFRS) Foundation of the International Sustainability Standards Board (ISSB). The ISSB is to develop global standards to improve the consistency, comparability and reliability of sustainability reporting.

<sup>51</sup> Deposit insurers tend to prefer risk adverse investment strategies that minimise the risk of even small losses regardless of implications on yield prospects.

<sup>52</sup> According to Forbes “... consumers across all generations – from Baby Boomers to Gen Z – are now willing to spend more for sustainable products. Just two years ago, only 58% of consumers across all generations were willing to spend more for sustainable options. Today, nearly 90% of Gen X consumers said that they would be willing to spend an extra 10% or more for sustainable products, compared to just over 34% two years ago” – Petro (2022).

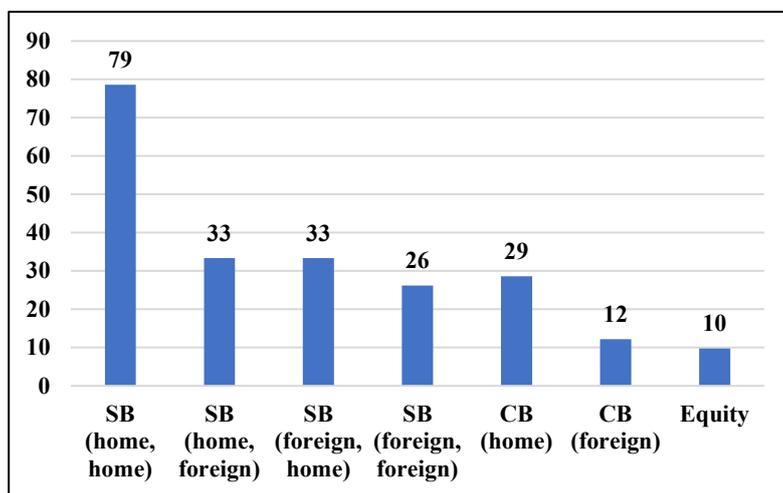
(focussed on greenwashing) by the European Commission found that 42% of websites screened included claims that “were exaggerated, false or deceptive and could potentially qualify as unfair commercial practices under EU rules”.<sup>53</sup> The relatively low ranking of greenwashing may be explained by its links with profitability and liquidity concerns, which may already account for this risk. Upon revelation of greenwashing activities, assets concerned are likely to drop in value sharply.

### 3.4 Legal and practical challenges

#### Deposit insurers’ legal limitations regarding the asset classes available for investment purposes restricts the scope of potential climate-related fund management.

Of all deposit insurers participating, almost 80% can invest in domestic sovereign bonds (SB) that are denominated in the home currency. Around 25% of deposit insurers can only invest in sovereign bonds issued by the home jurisdiction in domestic currency. Investing in other sovereign bonds (be them issued by other jurisdictions and/or in foreign currencies) is available to about 30% of deposit insurers only. This is in part explained by the additional risks associated with exchange rate fluctuations. Given that 97% of central government sovereign ESG bonds is issued in three currencies only (EUR, USD and GBP, see above), the legal possibility for a significant share of deposit insurers to invest in climate-related assets is de facto very limited.

Figure 10: Asset classes available for investment to deposit insurers (in %)



Source: 2022 IADI Survey on Deposit Insurers’ Consideration of ESG Issues and the Role of Climate in Fund Management

Whereas approximately one in three deposit insurers (29%) can invest in domestic corporate bonds; few deposit insurers can invest in corporate bonds issued in foreign currency (12%) or in equity (10%).<sup>54</sup> A small number of deposit insurers cannot invest funds and typically holds these with the Central Bank or the Treasury.

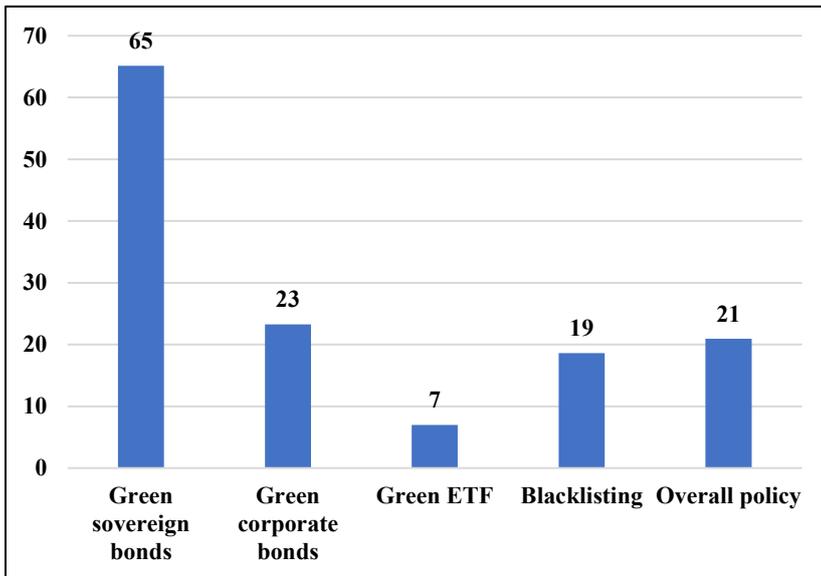
These limitations regarding possible investments aim at safeguarding safety and liquidity. For the vast majority of deposit insurers, there are no additional legal limitations that would hinder them from applying typical elements of a climate investment policy. In particular, legal prescriptions hindering deposit insurers to exclude certain companies or sectors, to favour certain financial instruments (e.g. green bonds) or to set a general climate / ESG related policy aim when managing funds are generally not relevant.

**From a practical point of view, two in three deposit insurers identify investment in green sovereign bonds as the most likely manner of operationalising a climate investment policy** (Figure 11). Other potential elements of such a policy score markedly lower with only one in five expecting the purchase of green corporate bonds, the exclusion of investment in certain sectors or the deposit insurer setting an overall climate-related aim (e.g. reducing carbon emission in the portfolio). Likely linked to existing legal limits, investment in green ETF is considered likely by very few deposit insurers.

<sup>53</sup> Further information: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_269](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_269)

<sup>54</sup> In ‘Asset classes available for DI investment’, SB(x,y) denote sovereign bonds issued by jurisdiction ‘x’ in currency ‘y’.

Figure 11: Most likely options if a climate policy were to be considered (in %)



Source: 2022 IADI Survey on Deposit Insurers' Consideration of ESG Issues and the Role of Climate in Fund Management

Also from a practical point of view, using taxonomies or private climate-related labels may be helpful in closing the data gap diagnosed above. As of now, only 3 deposit insurers use public taxonomies (domestic or foreign) or private labels. This low number may be explained by both the limited prevalence of climate-related investment policies and the developing stage of taxonomies.

**Opinions on future use of taxonomies seem still in the stage of being build.** About in three deposit insurers rate the probability of using domestic taxonomies to be medium and one in five does so for foreign taxonomies. Expected use of private labels is considerably lower with only in ten considering this. Note that around half of deposit insurers did not convey expectations on possible use of public taxonomies.

### 3.5 Summary

- Very few deposit insurers take climate (or other ESG) issues into consideration for reasons beyond financial risk management. Views amongst deposit insurers are split equally on whether there are convincing reasons to do so. Reasons mentioned most often relate to the deposit insurer's social responsibility and expectations by the public. Half of deposit insurers that see convincing reasons for considering non-financial climate considerations expect to adopt an explicit climate investment policy in the next two years.
- The main risks deposit insurers associate with climate investment policies concern data gaps, liquidity risks and the risk of lower profitability.
- The main legal hurdle for deposit insurers to engage in climate-related fund management relates to the fact that, in order to safeguard their investment and liquidity, many deposit insurers invest in domestic sovereign bonds only. Given the still developing state of the market for climate-related financial products and its concentration on three currencies only, this de facto heavily restrains deposit insurers' ability to establish climate-related fund management.
- When putting a possible climate-related funding strategy into practice, most deposit insurers would aim at investing in green sovereign bonds. Views on future use by deposit insurers of taxonomies or private labels are still developing.

## 4 Conclusions

Climate change and the measures necessary to address it may come with substantial risks to economies, financial stability and deposit insurers. Both financial markets and financial safety net participants are increasingly taking climate into consideration with developing products or policies.

This paper focusses on the fund management activities of deposit insurers and is one of the first to investigate the role climate considerations play there. Given the novel nature of this subject, this paper is primarily a stocktaking exercise.

Acting in their capacity as fund managers, and to meet the standards set out in the IADI Core Principles, deposit insurers are required to preserve capital and maintain liquidity in their fund. Changes in climate may expose deposit insurers' funds to both financial and non-financial risks. We conclude that the consideration of these risks is not a widespread practice amongst deposit insurers, but that a significant share of deposit insurers identify this as a point worthy of attention, and potentially action. At the same time, we identify a number of legal and practical hurdles for deposit insurers to consider climate as a non-financial risk factor. Many of these are aggravated by the still developing nature of financial markets.

This paper does not include policy deliberations or recommendations. Key stakeholders continue to build their understanding of the financial risk climate change may (or may not) pose to their organisation and continue to monitor the situation and weigh the implications in their given jurisdiction. Consideration of non-financial risks of climate change in managing deposit insurers' funds and the adoption of potential climate investment policies requires jurisdiction-specific analysis of the potential for reputational risks as well as domestic policy deliberations, including appetite to potentially forego returns on investment in safe assets that are green.

Continuing research in this field, IADI will continue to monitor the development of financial markets and policy choices made by deposit insurers and other participants of the financial safety net.

## 5 References

- Amamiya, M. (2022). [Climate Change and Finance](#). *Speech at the Japan Society of Monetary Economics, 27 November 2022*.
- Baker, M., Egan, M., Sarkar, S. (2022). How Do Investors Value ESG? *National Bureau of Economic Research Working Paper 30708*.
- Bank of Canada, OSFI. (2022). Using Scenario Analysis to Assess Climate Transition Risk. *Bank of Canada, 2022*.
- Bank of Japan. (2021). The Bank of Japan's Strategy on Climate Change. *Bank of Japan, July 2021*.
- Basel Committee on Banking Supervision. (2021). Principles for the effective management and supervision of climate-related financial risks, *Bank for International Settlements, June 2022*.
- Basel Committee on Banking Supervision. (2021a). Frequently asked questions on climate-related financial risks. *Basel Committee on Banking Supervision, December 2022*.
- Bhagat, S. (2022). An Inconvenient Truth About ESG Investing. *Harvard Business Review, March 2022*.
- Cevik, S. and Jalles, J. T. (2020), This Changes Everything: Climate Shocks and Sovereign Bonds, *IMF Working Paper, WP/20/79, June 2020*.
- Cheng, G, Ehlers, T., Packer, F. (2022). Sovereigns and sustainable bonds: challenges and new options. *Bank for International Settlements Quarterly Review, September 2022*.
- Climate Bonds Initiative. (2021). [Sustainable debt – Global State of the Market 2021](#).
- Cornell, B. (2020). ESG preferences, risk and return. *European Financial Management. 2021; 27:12-19*.
- European Central Bank. (2022). 2022 climate risk stress text. *European Central Bank, July 2022*.
- European Central Bank. (2022a). [ECB takes further steps to incorporate climate change into its monetary policy operations](#). *Press Release, 4 July 2022*.
- European Central Bank. (2023). [Monetary policy tightening and the green transition](#). *Speech by Isabel Schnabel, Member of the Executive Board of the ECB, at the International Symposium on Central Bank Independence, Sveriges Riksbank, Stockholm, 10 January 2023*.
- Federal Reserve. (2022). Federal Reserve Board invites public comment on proposed principles providing a high-level framework for the safe and sound management of exposures to climate-related financial risks for large banking organizations. *Press release, December 2022*.
- Federal Reserve. (2022a). Federal Reserve Board announces that six of the nation's largest banks will participate in a pilot climate scenario analysis exercise designed to enhance the ability of supervisors and firms to measure and manage climate-related financial risks. *Press release, September 2022*.
- Financial Stability Oversight Council. (2021). [Report on climate-related financial risks](#).
- Fonds de Garantie des Dépôts et de Résolution. (2022). [Rapport annuel 2021](#).
- FSB, NGFS. (2022). Climate Scenario Analysis by Jurisdictions: Initial findings and lessons. *Financial Stability Board, November 2022*.
- Hartzmark, S., Sussman, A. (2019). Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows. *The Journal of Finance, 74: 2789-2837*.
- Henze, V., Boyd, S. (2022). ESG May Surpass \$41 Trillion Assets in 2022, But Not Without Challenges. *Bloomberg Intelligence, January 2022*.
- IADI. (2016). A Handbook for the Assessment of Compliance with the Core Principles for Effective Deposit Insurance Systems. *International Association of Deposit Insurers, March 2016*.

- Jones, L. (2022). \$500bn Green Issuance 2021: social and sustainable acceleration: Annual green \$1tn in sight: Market expansion forecasts for 2022 and 2025. *Climate Bonds Initiative, January 2022*.
- NGFS. (2020). Progress report on the implementation of sustainable and responsible investment practices in central banks' portfolio management. *Network for Greening the Financial System Technical Document*.
- Petro, G. (2022). Consumers Demand Sustainable Products and Shopping Formats. *Forbes, March 2022*.
- Powell, J. (2023). [Central Bank Independence and the Mandate—Evolving Views](#). *Symposium on Central Bank Independence, Sveriges Riksbank, Stockholm, Sweden, 10 January 2023*.
- Quinson, T. (2022). Big ESG Funds Are Doing Worse Than the S&P 500. *Bloomberg, December 2022*.
- Van Roosebeke, B., Defina, R. (2021). Five Emerging Issues in Deposit Insurance. *International Association of Deposit Insurers, Policy Brief, No. 4*.
- Van Roosebeke, B., Defina, R. (2021a). Climate Change Fever: Can Deposit Insurers Stay Cool? *International Association of Deposit Insurers, Policy Brief, No. 5*.
- Van Roosebeke, B., Defina, R. (2022). ESG and Deposit Insurance: Taking Stock and Looking Ahead. *International Association of Deposit Insurers, Survey Brief, No. 4*.
- Van Roosebeke, B., Defina, R. (2022a). Deposit Insurance in 2022: Global Trends and Key Emerging Issues. *International Association of Deposit Insurers, Research Paper, February 2022*.
- Volz, U., Beirne, J., Ambrosio Preudhomme, N., Fenton, A., Mazzacurati, E., Renzhi, N. and Stampe, J. (2020). Climate Change and Sovereign Risk. *SOAS University of London, Asian Development Bank Institute, World Wide Fund for Nature Singapore, and Four Twenty Seven, October 2020*.
- World Bank Group. (2022). Sovereign Green, Social and Sustainability Bond: Unlocking the Potential for Emerging Markets and Developing Economies. *World Bank Group, 2022*.
- Zenios, S. (2021). The risks from climate change to sovereign debt in Europe. *Bruegel. Policy Contribution, Issue No. 16/21, July 2021*.

## Previous issues in this series

No 1 May 2021	Impact of the COVID-19 Pandemic on Deposit Insurance	Ryan Defina (IADI)
No 2 February 2022	COVID-19 and Covered Deposits	Bert Van Roosebeke and Ryan Defina (IADI)
No 3 June 2022	COVID-19 and Deposit Insurer Fund Sizes	Bert Van Roosebeke and Ryan Defina (IADI)
No 4 January 2023	ESG and Deposit Insurance: Taking Stock and Looking Ahead	Bert Van Roosebeke and Ryan Defina (IADI)

## Appendix – Survey questionnaire (select questions only)

The following focusses on the consideration of climate risks by deposit insurers when investing funds. For a correct understanding, please note this survey distinguishes between:

- **Climate risk management**, denoting the inclusion of climate related risks (mostly physical, transition and liability risks) in risk management considerations. These risks may materialise in more traditional risk categories such as credit, market, liquidity or operational risk.
- **Climate investment policy**, denoting a policy attaching weight to climate (or other ESG) considerations when investing deposit insurance funds in a manner that goes beyond the consideration of risks only.

### I. Climate risk management

1. In the framework of traditional risk management practices, which of the following climate related risks does your organisation take explicit account of when investing funds? Please explain how such considerations take place.
  - Physical risks (resulting from economic costs and losses associated with the exposure of infrastructure and/or people to climate-related hazards, e.g. adverse weather events)
  - Transition risks (associated with the financial impact resulting from a transition to a low-carbon economy which may be driven by changes in technology, in consumer preferences or in regulation)
  - Liability risks (resulting from companies or other entities being held liable for environmental damage)
  - None of the above

Comments:

2. Are you confident that your organisation's risk management practices take sufficient account of climate related risks when investing?
  - Yes
  - No

Any additional comments:

### II. Climate investment policy

3. Does your organisation's investment policy include a specific policy on climate risks/ESG that goes beyond traditional risk management? (see next questions for examples)
  - Yes, it is publicly available
  - Yes, however it is not publicly available
  - No

Any additional comments:

4. If YES: please choose all elements entailed in this policy
- Black/whitelist (selecting/excluding companies/sectors/technologies to invest in)
  - Financial instrument-based criteria (e.g., green finance products)
  - DI investment policy is guided by an overarching policy (e.g., reduction of CO2 emissions), please specify
  - Other, please specify

Comments:

5. In general and for your jurisdiction, do you currently see convincing arguments for a considering a climate investment policy by the deposit insurer that actively considers climate/ESG beyond traditional risk management? If yes, which ones?

- No
- Yes:
  - May contribute to improved diversification of risk
  - Climate related risk are not correctly priced by the market
  - Improve risk/return balance
  - Expectations from stakeholders
  - Expectation from the general public
  - Intrinsic: viewed as DI social responsibility
  - Other, please specify:

6. Irrespective of general rules regarding safe and liquid investing, are there currently legal prescriptions that would prevent your organisation from:

- Excluding certain companies / sectors when investing
- Favouring certain financial instruments (e.g. green bonds) when investing
- Setting a general climate / ESG related policy aim when investing

Please explain:

7. In your assessment, how likely is it that your organisation will adopt an explicit climate investment policy (that goes beyond pure risk management considerations) in the next two years:

- Very likely
- Likely
- Unlikely
- Very unlikely
- N/A

8. In your opinion, which are the main risks associated with deposit insurers adopting climate investment policies (that go beyond pure risk management considerations)?

- Liquidity risks
- Greenwashing risk
- Low profitability
- Credit risk
- Risk of undue influence by external parties in the DI investment policy
- Lack of information/data
- Reputational risks e.g. being viewed as too political

- Other, please specify:

Other, please specify:

9. In your jurisdictions, do you expect growing pressure on the deposit insurer to establish a climate investment policy in the coming two years?
- from members
  - from legislators
  - from other safety net participants
  - from the general public
  - Other, please specify:
  - No growing pressure expected

Other, please specify:

### III. General questions

10. Which of the following asset classes does the law or other statutes allow your organisation to invest in?
- Sovereign bonds:
    - issued by home jurisdiction in home currency,
    - issued by home jurisdiction in foreign currency
    - issued by other jurisdictions in home currency,
    - issued by other jurisdiction in foreign currency
  - Corporate bonds:
    - in home currency,
    - in foreign currency
  - Equity
  - Other, please specify:

Other, please specify:

11. If your organisation were to adopt a climate investment policy (that goes beyond pure risk management considerations), in your opinion, which of the following options are most likely to be considered?
- Investing in green sovereign bonds
  - Investing in green corporate bonds
  - Investing in Exchange Traded Funds (ETF) with sustainability/climate label
  - Blacklisting certain sectors/technologies/companies
  - Setting an overall aim / benchmark (e.g. reducing carbon emission in the portfolio)
  - Other, please specify:
  - None

Other, please specify:

12.A number of private and public labels / taxonomies have been/are being developed. These are to signal the sustainability/climate/ESG characteristics of an investment in an environment with information asymmetries. Does your organisation currently utilise any of the following taxonomies relating to sustainability/climate/ESG activities [select all that apply]

- Domestic public taxonomies
- Foreign public taxonomies
- Private labels/taxonomies

If applicable, please specify the manner in which these taxonomies are utilised:

13.How likely is the future use by your organisation of:

- Domestic public taxonomies: High; medium; low; N/A
- Foreign public taxonomies: High; medium; low; N/A
- Private labels/taxonomies: High; medium; low; N/A

Any additional comments: