



**IADI**

International Association  
of Deposit Insurers

# Deposit Insurance in 2023

## *Global Trends and Key Issues*



**February 2023**

The IADI Report on Deposit Insurance in 2023 is written by staff members of the IADI Secretariat Research Unit and published by IADI. Views expressed are those of the author(s) and not necessarily the views of IADI. The editors of the IADI Report on Deposit Insurance in 2023 are Bert Van Roosebeke and Ryan Defina.

This publication is available on the [IADI website](#)

## **ABOUT THE INTERNATIONAL ASSOCIATION OF DEPOSIT INSURERS**

The International Association of Deposit Insurers (IADI) is the global standard-setting body for deposit insurance systems. IADI was formed in May 2002 to enhance the effectiveness of deposit insurance systems by promoting guidance and international cooperation. IADI produces research, guidance and conducts training and technical assistance for the benefit of those jurisdictions seeking to establish or improve a deposit insurance system. IADI's standards, outlined in its Core Principles for Effective Deposit Insurance Systems, are part of the Financial Stability Board's Key Standards for Sound Financial Systems, and are used in the Financial Sector Assessment Program (FSAP) reviews conducted by the International Monetary Fund and the World Bank. Members also share their knowledge and expertise through participation in international conferences and other forums. IADI currently has 94 Member deposit insurers, 11 Associates and 17 Partners. IADI is a non-profit organisation constituted under Swiss Law and is domiciled at the Bank for International Settlements in Basel, Switzerland.

For more information about IADI, please visit [www.iadi.org](http://www.iadi.org).

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## Letter from the editors

**W**elcome to the second edition of the annual IADI Report on Deposit Insurance! After a year where the end of the COVID-19 pandemic has been followed by strong inflationary pressures, this report provides an overview of the current state and global trends of deposit insurance and investigates key issues of the near future.

Complementing research conducted by the IADI Secretariat Research Unit under the guidance of the Core Principles and Research Committee, this IADI Report on Deposit Insurance in 2023 combines some of our latest statistical and analytical insights in a way that is digestible to a broad audience. Similarly, it provides an opportunity to shine a light on recently launched products including [IADI Policy Briefs](#), [IADI Survey Briefs](#), [IADI Fintech Briefs](#), the [IADI Chart Pack](#), the [IADI Podcast Series](#) as well as [VIDA](#), the new IADI tool for Visualisation of IADI Data Analysis, available to IADI members only.

The global economy has now emerged from the advent of COVID-19, which shook fundamentals, both financial and non-financial for over two years. We are now facing new macroeconomic challenges such as multi-decade high levels of rising inflation, tightening monetary policies, a softening in growth projections for 2023/24 and dramatic downward fluctuations in consumer confidence. This report offers some insight in how deposit insurers have fared throughout 2022, and notes priority areas of concern for the rest of 2023.

In addition to the macro-economic paradigm shift, this report focuses on the growing role of deposit insurers in bank resolution, which we expect to be a key issue in the upcoming year. Digitisation through fintech solutions was identified as an emerging issue to deposit insurers last year, and continues to be so. This report sets out some pressing elements of the lasting and fundamental impact of digitisation on banking, payments and deposit insurance. Climate change will affect us all in the upcoming decades and we look into how deposit insurers take note of financial and non-financial climate and other ESG risks. Finally, the coming year sees the review and update of the IADI Core Principles for Effective Deposit Insurance Systems continue, with finalisation expected by the end of the year.

We hope that this report will be helpful for all deposit insurers.

We wish you an interesting read!



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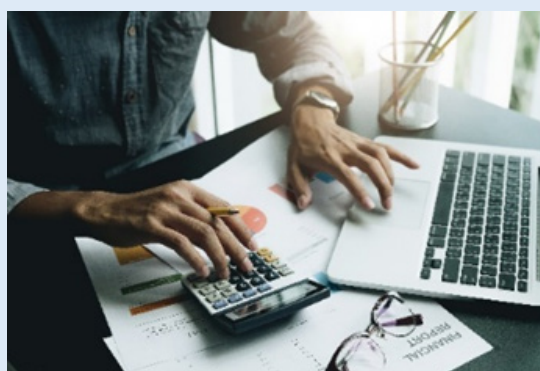
## Executive Summary

This report explores some of the key dynamics in deposit insurance systems around the world in the past year and identifies five key issues which are expected to significantly affect the activities of deposit insurers in the near future.



In the line of past year's trend, recent data affirms that responsibilities of deposit insurers continue to grow. The share of deposit insurers with a paybox-plus mandate further grew to reach 46% in 2022. As a consequence, the role of deposit insurers in bank resolution becomes more and more relevant. This does not necessarily mean that the depositor insurer is the resolution authority. However, largely unchanged from last year, slightly more than 40% of deposit insurers (co-) decide on bank resolution.

The share of jurisdictions in which the deposit insurer commences payout within seven days continues to grow and now reaches 65%. With significant spread worldwide, room for improvement remains as to reach the IADI standard of reimbursement within seven days. In funding, the share of deposit insurers with ex-post funding only continues to decline to 4%. Differential premium systems are now well-established with half of deposit insurers applying elements of differential premium systems. Coverage levels have been largely unchanged and with rising deposits (also as a consequence of the pandemic), average global coverage ratios have declined. Unweighted global average coverage levels are now at 45% of total eligible deposits, comparable to levels last reached in 2014.

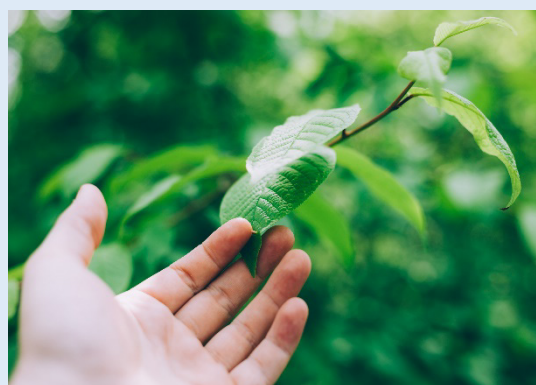


The **macroeconomic environment**, deposit insurers' role in resolution, digitisation, ESG and climate change and the IADI Core Principles Review and Update are the key issues of importance for deposit insurers in the coming year. Macroeconomic conditions have fundamentally changed, with a steep increase in consumer price pressure causing many central banks to tighten monetary policy. Political events and risks are adding to these pressures and increase economic uncertainty. For deposit insurers, this comes with two major challenges. First, sudden or persistently high inflation may give reason to deposit insurers to review the appropriateness of the coverage level. Second, the tight monetary policy necessary to reduce inflation may reinforce the economic downturn, with associated risks to deposit insurers.

The **role of deposit insurers in bank resolution activities** continues to expand, with access by deposit insurers to a wider toolkit (beyond depositor reimbursement only), and a general decrease in prevalence of the relatively limited paybox mandate. Although the role in resolution varies significantly across jurisdictions, the long-term trend of wider deposit insurer mandates can be expected to lead to increased involvement of deposit insurers in resolution. In the

upcoming year, important policy work on resolution, amongst others by the FSB and in the EU is expected. In the 2023/2024 financial year, IADI will prioritise efforts on bank resolution activities and will work towards updating its 2006 Guidance Paper in this field.

**Digitisation** remains relevant to deposit insurance in many fields. We identify a number of channels of influence, including operational challenges, changes in the risk profile of member banks, public awareness issues, cross-border issues, digital opportunities for deposit insurers but also operational risks of cybersecurity and the medium-term consequences of changing competition in banking markets. The impact of Central Bank Digital Currencies (CBDC) on deposits and hence deposit insurance is largely unknown as of today. The operating models and design features of CBDC will be a crucial factor for that impact. It is expected that CBDC will continue to grow in relevance for IADI and its members in the near future. Given recent turmoil on crypto-markets, regulatory discussions are expected to increase in relevance and global stablecoins are increasingly in the focus of global standard-setters. Although the exact implications for deposit insurance are yet unclear, IADI will closely monitor developments in this area.



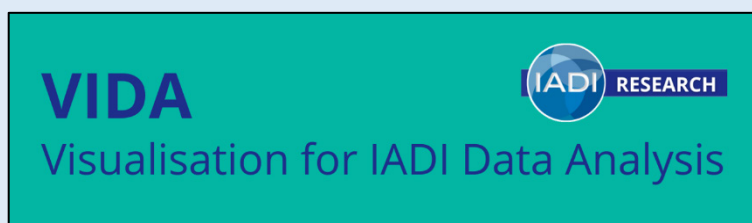
**Climate change** continues to be intensively discussed in the international financial community and global standard-setting work focusses on supervision, financial stability risks and on increasing financial actors' disclosure of climate risks. For deposit insurers, we identify five potential climate-related challenges. In addition, interest by deposit insurers has broadened to capture more than simply climate change. Environment, social and governance (ESG) deliberations have increasingly attracted the attention of deposit insurers. Of the 60% of deposit insurers that do not have a formalised ESG policy today, a majority plans to develop a (partial) ESG policy within the next two years. If this were to materialise, the share of deposit insurers with a formal ESG policy would rise from 40% in 2022 to 77% in 2024.

IADI's work on reviewing and updating the 2014 **IADI Core Principles** as international standard for effective deposit insurance systems has made significant progress in the past months and further progress is expected in the course of 2023. In the upcoming months and following approval of the final set of updated Core Principles by the IADI Executive Council, these will be presented to the FSB for inclusion in their Compendium of Financial Standards.

# 1 Snapshot of deposit insurance around the world

The following offers an overview of the current state of global deposit insurance by looking at some selected features of deposit insurance systems. Data sources include the 2023 IADI Annual Survey with 108 respondents, covering approximately 85% of deposit insurers worldwide. With its Annual Survey, IADI holds the world's leading dataset on deposit insurance covering more than ten years now, enabling a timely and consistent source from which to conduct priority research and policy analysis.

A key IADI achievement throughout 2022 was the development and rollout of VIDA. VIDA is a dynamic data visualisation tool now available exclusively to IADI members that improves analytical and reporting workflows through



interactive dashboards. It offers users the opportunity to develop intuitive dashboards via the Tableau® application. VIDA can be accessed by IADI Members through the IADI Data Warehouse. The tool was developed in 2022 by the IADI Research Unit in consultation with the Bank for International Settlements.

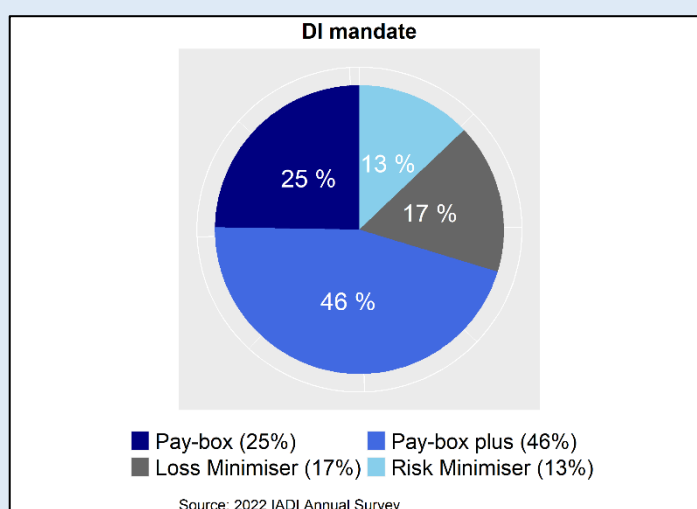
There will initially be two dashboards available. One focusses on quantitative data items and is available now. The other focusses on qualitative information and is currently under development. Numerous capabilities are enabled through this technology:

- Analyse various indicators across jurisdictions, or group by region and/or mandate
- Zoom in on any given individual jurisdiction
- Comparisons can be made over time (data currently available for the 2020-22 period inclusive)
- Dashboards and underlying data can be exported for further reporting and analysis

## 1.1 Mandate

Deposit insurers are often categorised based on their system mandate – pay-box, pay-box plus, loss minimiser and risk minimiser. This classification, while relatively parsimonious on the surface, encompasses a wealth of deposit insurance roles and responsibilities. These include the extent of access to bank resolution tools, ability to contribute to resolution decision making, and nature of any oversight/supervisory responsibilities.

The 2022 Annual Survey indicates that 25% of deposit insurers utilise the paybox mandate, while the rest play a greater role in bank resolution activities beyond depositor reimbursement.





Most prevalent today is the pay-box plus mandate, which constitutes just under half of all deposit insurers, and corresponds with “additional responsibilities, such as certain resolution functions”. This may include active involvement in the decision-making process pertaining to how a bank should be resolved, whether this be unilaterally, in consultation with other financial safety net participants, or in an advisory capacity. Deposit insurers with mandates and powers that reach further into resolution and supervision account for 17% (loss minimisers) and 13% (risk minimisers) respectively.

Mandate (Share of deposit insurers)	Year	
	2018	2022
Pay-box	30%	25%
Pay-box Plus	40%	46%
Loss Minimiser	17%	17%
Risk Minimiser	14%	13%

*Mandates can range from narrow “pay box” systems to those with extensive responsibilities, such as preventive action and loss or risk minimisation and management, with a variety of combinations in between. These can be broadly classified into four categories:*

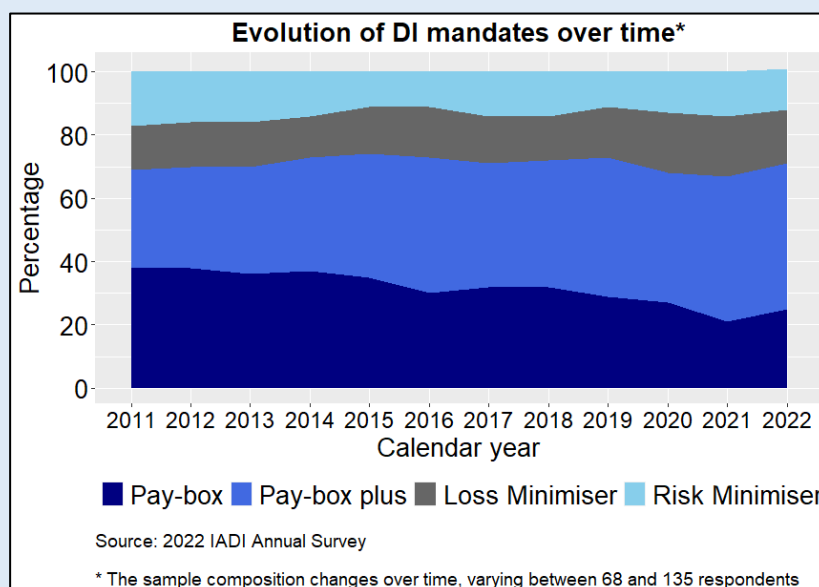
*A “pay box” mandate, where the deposit insurer is only responsible for the reimbursement of insured deposits;*

*A “pay box plus” mandate, where the deposit insurer has additional responsibilities, such as certain resolution functions (e.g. financial support);*

*A “loss minimiser” mandate, where the insurer actively engages in a selection from a range of least-cost resolution strategies; and*

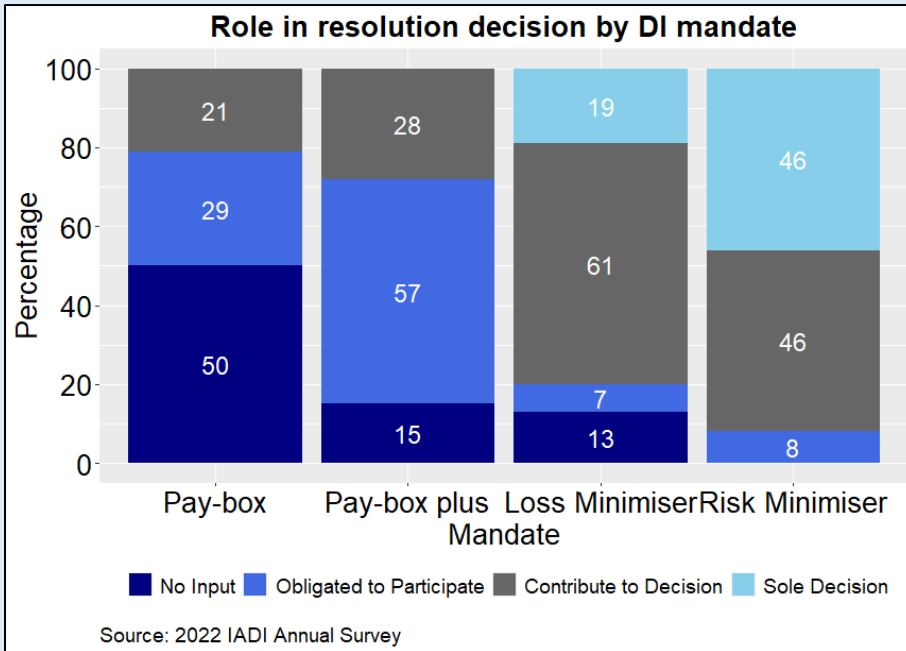
*A “risk minimiser” mandate, where the insurer has comprehensive risk minimisation functions that include risk assessment/management, a full suite of early intervention and resolution powers, and in some cases prudential oversight responsibilities.*

Although the prevalence of deposit insurers with a pay-box mandate has risen from 20% to 25% as compared to last year, it seems premature to interpret this as evidence for a turn-around in the long-year trend of broadening DI mandates.<sup>1</sup> Since 2011, when the share was at nearly 40%, this share has almost continuously declined. Growth has been particularly strong in the share of pay-box plus deposit insurers.



<sup>1</sup> Data is sourced from the IADI Annual Survey, the survey sample of which slightly varies yearly. After analysing the common sample between 2021 and 2022 iterations of the survey, the prevalence of paybox mandate has remained broadly the same. This is consistent with the overall findings of Defina (2021).





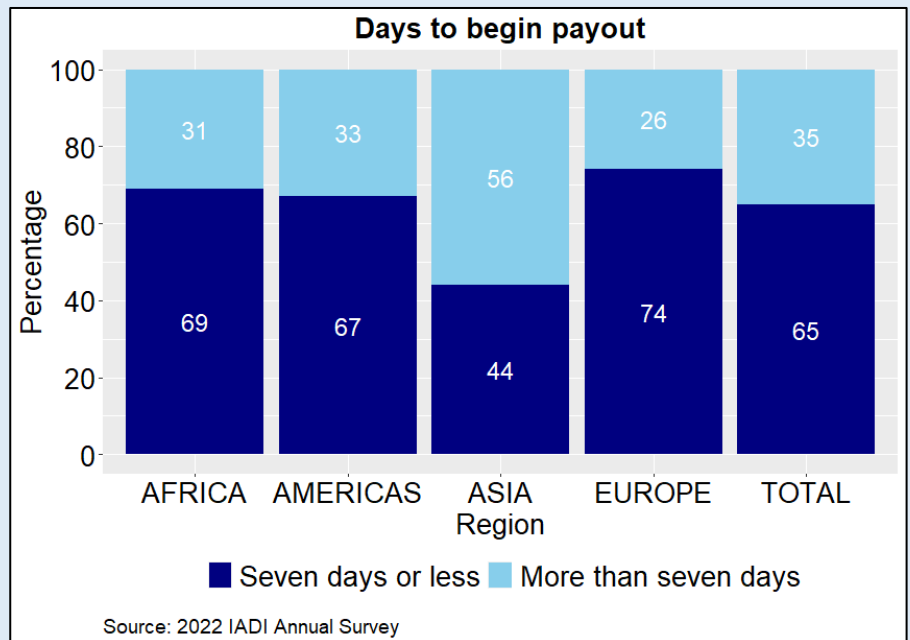
This broadening of deposit insurance mandates globally is naturally accompanied by an increasing role of deposit insurers in decision making on bank resolution measures. In a growing number of jurisdictions, deposit insurers are (co) responsible for implementing bank resolution tools such as bail-in, bridge banks, purchase and assumption transactions, open bank assistance, capital and/or liquidity support, etc. IADI Annual Survey data illustrates the relationship between mandates

and the extent of involvement in resolution decision making. (Co)-Decision making powers range from 21% for pay-boxes to 92% for risk minimisers.

## 1.2 Depositor reimbursement

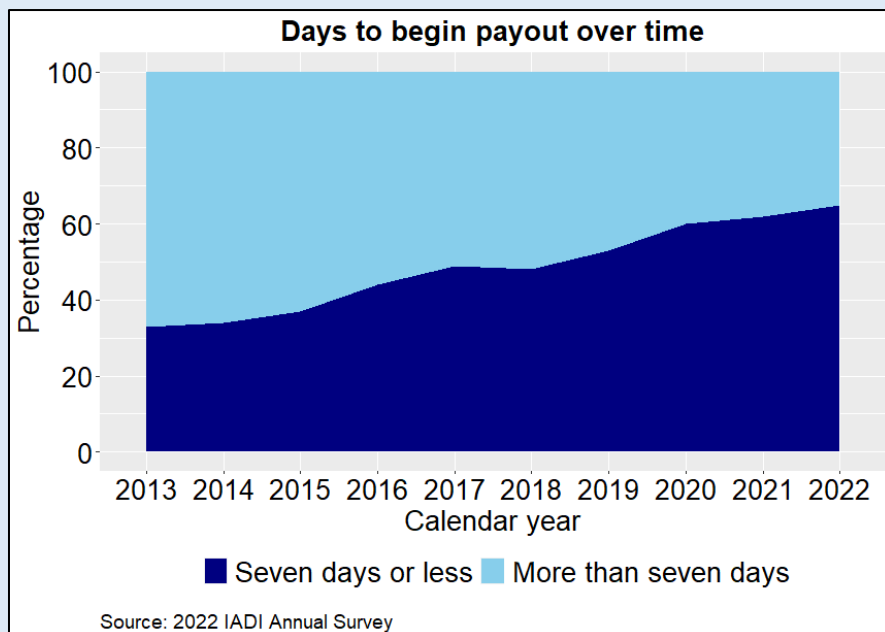
The speed and accuracy in which insured depositors can be reimbursed in a bank closure is fundamental to the core objectives of a deposit insurer. The IADI Core Principles for Effective Deposit Insurance Systems designate in Core Principle 15 that “the deposit insurer is able to reimburse most insured depositors within seven working days”.<sup>2</sup> It has generally been challenging for deposit insurers to meet this standard.

Whilst this concept is not surveyed directly, the 2022 Annual Survey shows that approximately 65% of respondents commenced reimbursement within seven days. Regional diversity is considerable, and ranges from 74% in Europe to 44% in Asia.



<sup>2</sup> IADI Core Principles for Effective Deposit Insurance Systems (Principle 15: Reimbursing Depositors, EC1)

The share of deposit insurers that commences reimbursement within 7 days has consistently grown over the last decade, from just over 30% in 2013. This suggests that the overall speed of depositor reimbursement is increasing. In the absence of an internationally identified and recognised trigger point for reimbursement to commence, findings should be interpreted with some degree of caution.<sup>3</sup>

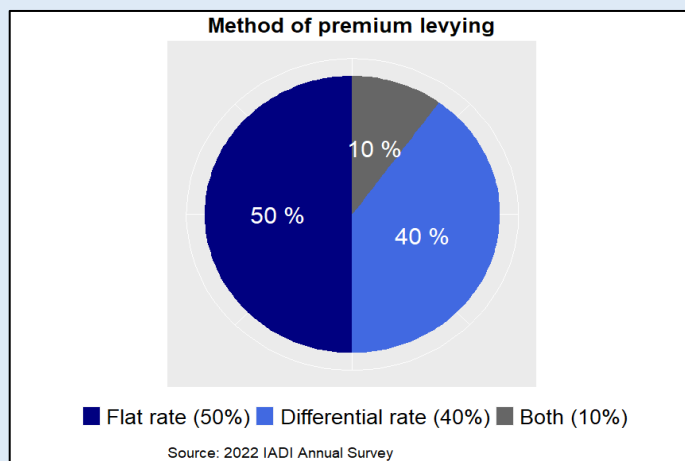
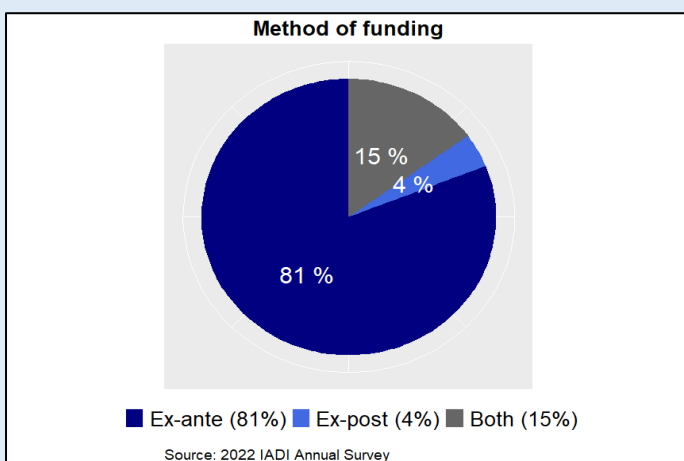


### 1.3 Funding

Funding of deposit insurance schemes overwhelmingly continues to occur on an ex-ante basis (96% of surveyed jurisdictions). This is usually achieved through levying premiums on member institutions before any bank failure has arisen. These premiums are priced such that they are proportional to the deposit insurance fund’s exposure, be it as a share of total, eligible or covered deposits. Largely unchanged from last year, approximately half of deposit insurers levy differential premiums which incorporate additional risk measures and thus price risk on a more granular basis. In 2010, this share was 30%.

*Funding for the deposit insurance system is provided on an ex-ante basis. Funding arrangements are clearly defined and established in law or regulation.*

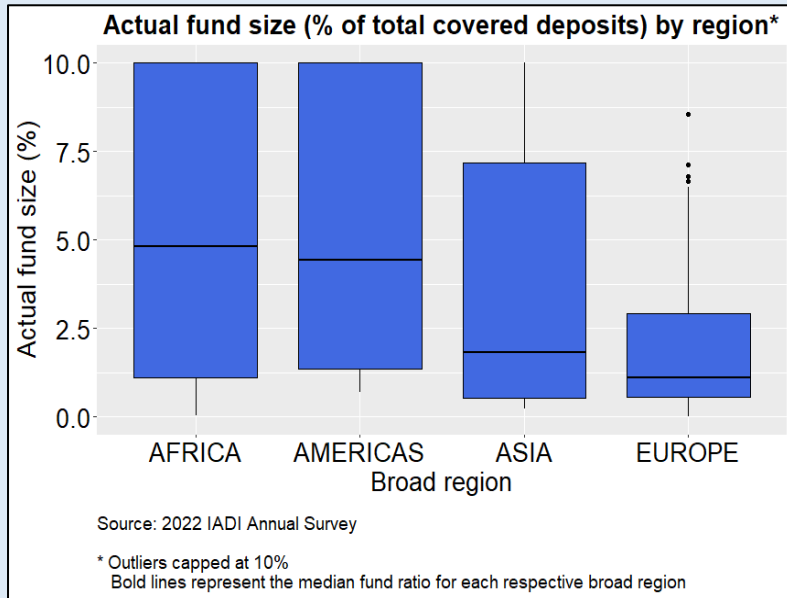
*IADI Core Principles for Effective Deposit Insurance Systems (Principle 14: Failure Resolution, Essential Criteria 5)*



<sup>3</sup> Sample composition across different iterations of the survey differ.

## 1.4 Fund size

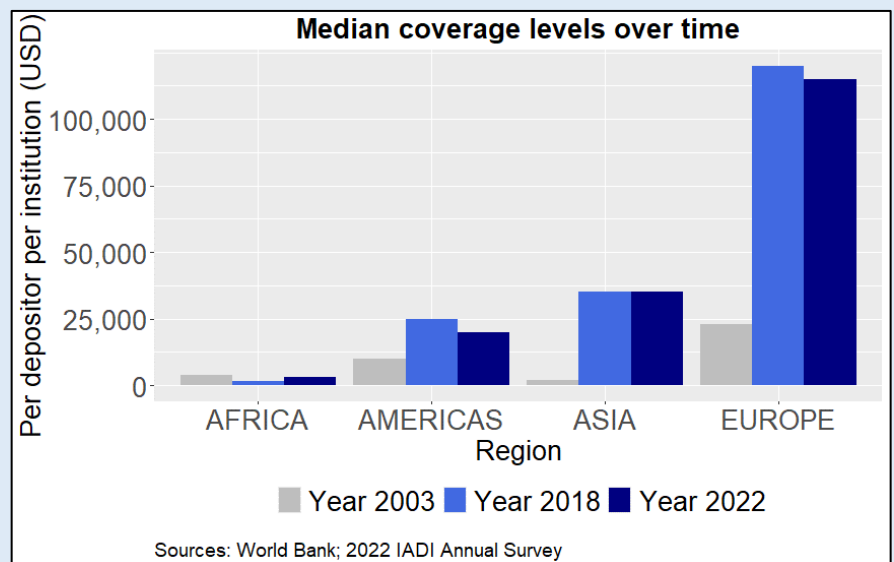
Deposit insurance fund sizes expressed as a share of total covered deposits differ substantially by region. The largest



funds are present in Africa and the Americas, whilst Europe is the lowest with a median of approximately 1%. The latter largely reflects Directive 2014/49/EU, which includes a target level for European deposit guarantee schemes of 0.8% of covered deposits by July 2024. Differences in fund sizes may reflect a number of factors. Mandates by deposit insurers differ considerably across regions and jurisdictions, as do the default probabilities of members banks within the deposit insurance system. All of these variables directly impact the size of funds deemed adequate by the deposit insurer.

## 1.5 Coverage

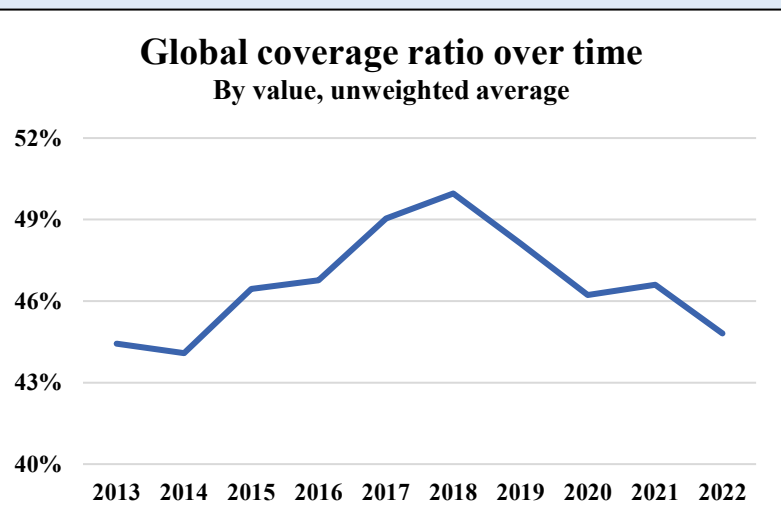
As illustrated by the adjacent figure, coverage levels have remained relatively stable over the past five years.<sup>4</sup> Since 2017, only approximately 1 in 3 deposit insurers have increased coverage levels. Most of the largest jurisdictions have not changed their coverage levels for more than a decade. For instance, the United States (Federal Deposit Insurance Corporation, USD 250,000), Canada (Canada Deposit Insurance Corporation, CAD 100,000) and European Union (national deposit guarantee schemes in the EU, EUR 100,000) last adjusted relevant legislation in 2010, 2005 and 2011 respectively. In the past 20 years, significant increases in coverage have been experienced particularly within Asia and Europe, but also in the USA which has first increased coverage from USD 100,000 to 250,000 in 2008. These were (in part) a result of reforms enacted after the 2008 Global Financial Crisis and sustained efforts by deposit insurers to protect depositors and financial stability.



<sup>4</sup> Note the figure shows median coverage levels only and do not allow for a sensible comparison of coverage levels across regions.



Coverage ratios, measured as a share of the value of eligible deposits that are insured by deposit insurance, are in the vicinity of 40% globally. Unweighted average measures present no major differential between jurisdictions, however unweighted medians see substantially lower coverage observed in Africa. Over the past 10 years, global coverage ratios



have been continuously exceeding 40%; peaking at 50% in 2018. Since then, the global unweighted average coverage ratio has been declining and has now reached an eight year low of 45%.

Absent major changes in coverage levels, this fall in coverage ratios can likely be attributed to rising covered deposit stocks, amongst others as a consequence of the COVID-19 pandemic, which saw a sizeable increase in deposits in a number of regions.<sup>5</sup>

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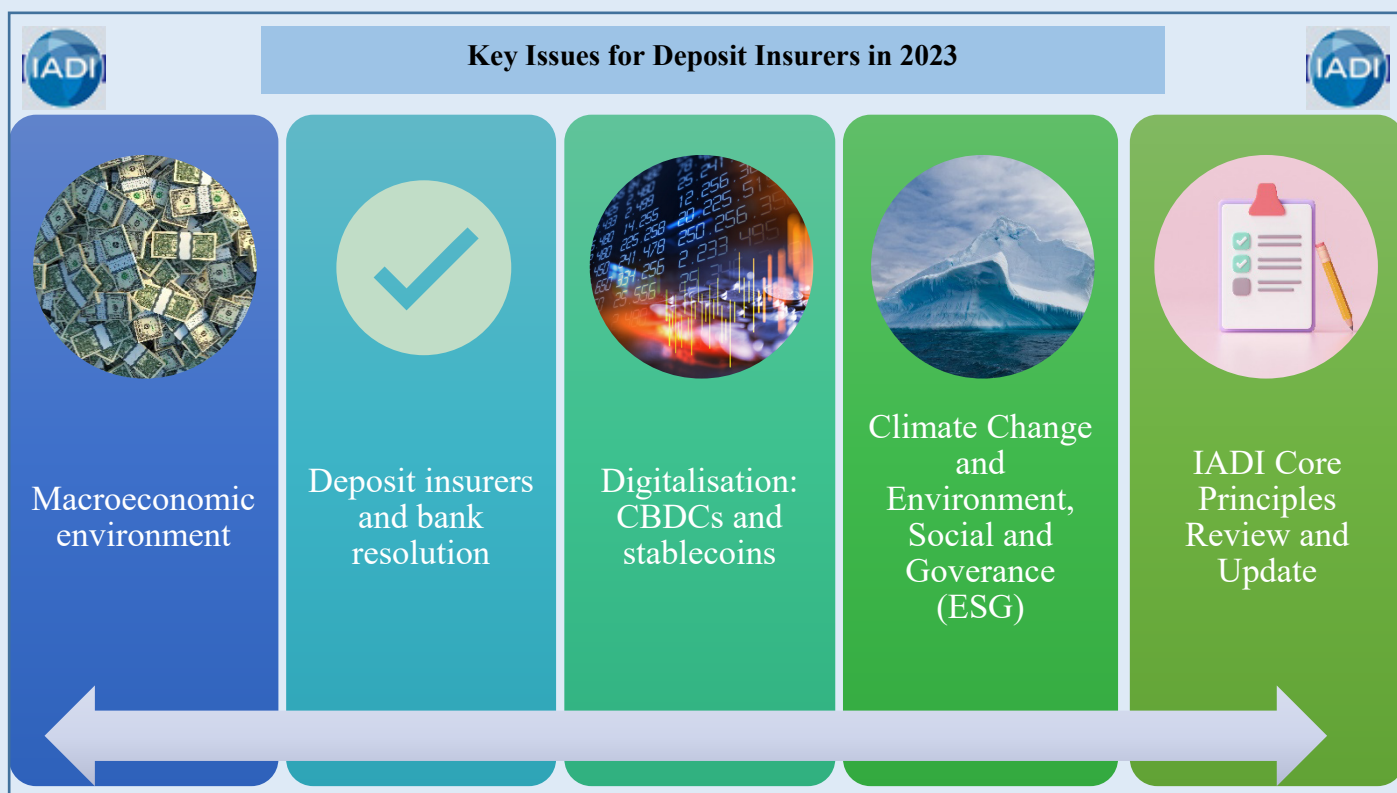
<sup>5</sup> Van Roosebeke & Defina (2022)

## 2 Key issues for deposit insurers in 2023

This report identifies five issues of key importance globally to deposit insurers in 2023. These reflect current and pressing concerns, and are complemented by issues of longer term and/or of more strategic relevance. The issues identified have been subject to targeted research over the past years and are likely to be subject to further analysis in the medium term. The key 2023 issues cover:

- (1) The macroeconomic environment
- (2) Deposit insurers and bank resolution
- (3) Digitalisation, with particular focus on Central Bank Digital Currencies (CBDC) and stablecoins
- (4) Climate change and ESG
- (5) Review and update of the IADI Core Principles.

Importantly, the deposit insurance community will continue to monitor other issues outside of this list. These merely offer a sense of major priorities rather than an exhaustive list of research priorities.



The key issues mirror some of the emerging issues for deposit insurers that were identified in the 2022 Annual Trends Report. However, reflecting developments over the past twelve months, last year's assessment has been updated. As the most pressing key issue, COVID-19 has been replaced by concerns related to the global macroeconomic environment (which are in part post-pandemic implications on the global economy). Resolution will be of key importance to deposit insurers globally, with policy discussions expected to pick up. Digitalisation impacts both banking and deposit insurance through countless means, presenting both opportunities and risks. We also expect regulatory discussions in this area to become more relevant in the upcoming months. Reacting to climate change remains a considerable medium-term challenge and a key issue for deposit insurers to confront. We have broadened the topic to include ESG-issues, reflecting newly established interest in social and governance issues (along with sustained interest in climate change).

IADI’s work in reviewing and updating the 2014 IADI Core Principles as the international standard for effective deposit insurance systems has made significant process in the past months, with further progress expected throughout 2023. Cross-border considerations for deposit insurers remain very relevant and are a relevant factor in some of the key issues identified, but due to a lack of major policy developments, we no longer list this as a stand-alone key topic for the upcoming year.

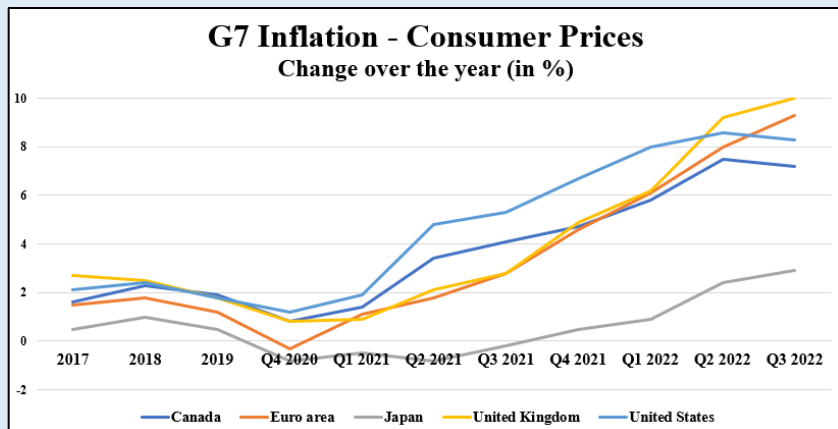
<b>2022 Issue</b>	<b>2023 Issue</b>	<b>Comments</b>
<b>COVID-19</b>	<b>Macroeconomic environment</b>	Macroeconomic conditions have fundamentally changed, with a steep increase in consumer price pressures causing central banks to tighten monetary policy. In part, this is a consequence of COVID-19 lockdowns and related fiscal measures, but political events and risks are adding to these pressures and have increased economic uncertainty.
<b>Deposit insurers and bank resolution</b>	<b>Deposit insurers and bank resolution</b>	Remains highly relevant, with research ongoing and policy discussions to be expected.
<b>Fintech</b>	<b>Digitisation: CBDCs and stablecoins</b>	Remains highly relevant to deposit insurance in many fields. Given recent turmoil on crypto-markets, regulatory discussions expected to increase in relevance.
<b>Climate change</b>	<b>Climate change and ESG</b>	Broadened to include ‘S’ and ‘G’ given evidence of interest within deposit insurance community.
<b>N/A</b>	<b>IADI Core Principles review and update</b>	Significant progress expected during 2023 in updating the 2014 IADI Standard for Effective Deposit Insurance Systems.



## 2.1 Key issue 1: Macroeconomic environment

Undoubtedly the most substantial cross-cutting issue in the coming year will be the challenging macroeconomic environment. Following years of record low inflation, in several economies, inflation has picked up markedly in past quarters. Growth in inflation has been particularly strong in G7 jurisdictions, with a recent pick-up of inflation in other economies also.

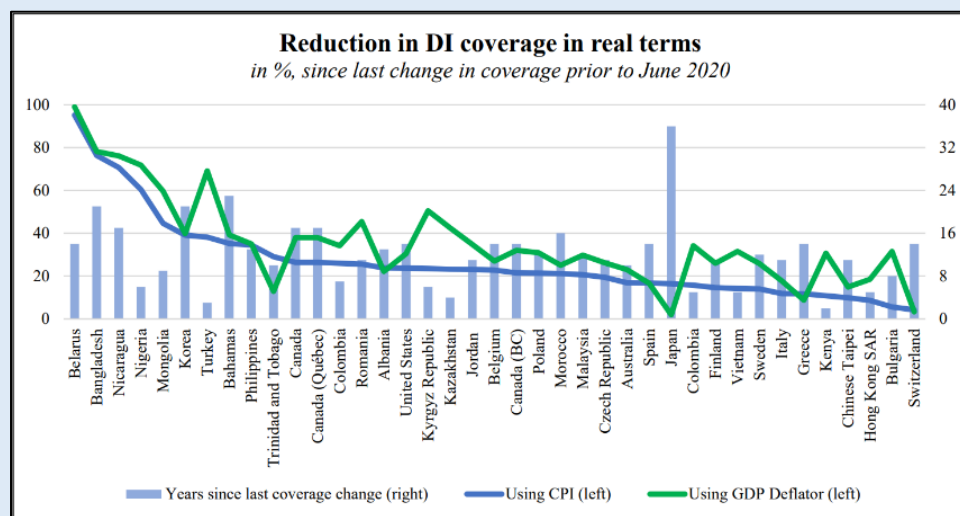
The drivers of this inflation vary and include (to differing degrees in different regions) post-pandemic and enduring supply chain bottlenecks, COVID-related fiscal stimulus, enduringly accommodative monetary policy and sharp increases in food and energy prices due to political events such as the Russian invasion of Ukraine. Globally, central banks have reacted with a rapid tightening of



monetary policies to avoid a de-anchoring of inflation expectations. As a reaction (as of January 2023), headline inflation seems to have reached a peak in Q4 2022, but core inflation (excluding food and energy) remains at elevated levels – and still increasing in some regions. This may cause central banks to further tighten monetary policy or maintain interest rates at elevated levels for a sustained period of time.

For deposit insurers, the current macroeconomic environment comes with two major challenges. First, sudden or persistently high inflation may present rationale for deposit insurers to review the appropriateness of their coverage level. Second, the tightened monetary policy necessary to reduce inflation can exacerbate economic downturns, with associated risks to deposit insurers.

Two 2022 reports by IADI<sup>6</sup> sought to underscore the heightened importance of inflation to deposit insurers. They illustrate the impact of inflation on the depreciating real coverage levels. Substantial variation in depreciation of



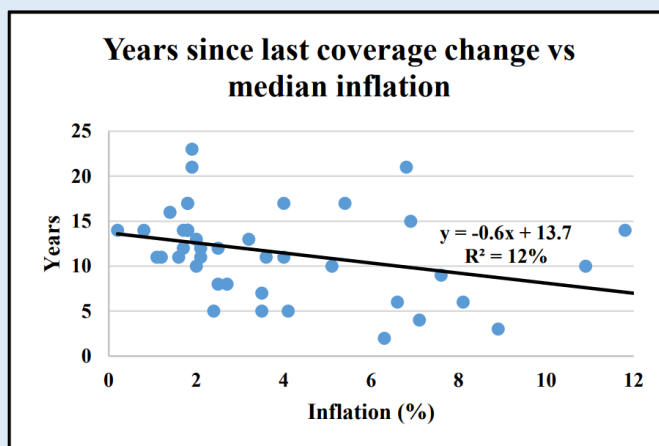
coverage levels across jurisdictions has been observed. Six jurisdictions (15% of jurisdictions sampled) show a decrease of real coverage in consumer price terms of at least 50%. At the same time, 16 jurisdictions (39%) show a decrease of less than 20%. In both groups, diversity in the number of

<sup>6</sup> Van Roosebeke & Defina (2022b); Van Roosebeke & Defina (2022c)

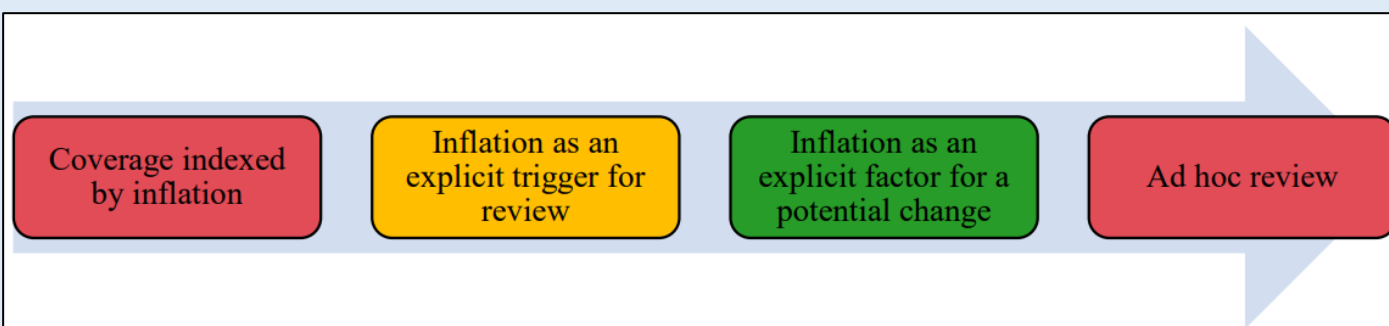
years since coverage has last been changed is considerable. All else equal, the more recent the change in coverage level, the smaller the reduction in real coverage since last coverage change is expected to be. This applies in all jurisdictions, irrespective of their inflation profile.

Whether or not coverage levels are still adequate requires an individual analysis, in which the coverage ratio will play an important role. As discussed in the report previously mentioned, this requires an analysis of the impact of inflation on savings and nominal deposits. Such analysis will need to consider jurisdiction-specific characteristics such as historical experience with inflation and the reasons for, and speed of the recent inflation hike. Importantly, the ability to conduct periodic reviews of coverage levels presupposes the availability to the deposit insurer of recent data on coverage ratios and hence, deposits. Inflation-induced increases in coverage levels should also be well-considered as they can create financial risks to the deposit insurer if the fund size does not grow proportionally.

In general, there is evidence to suggest that coverage levels are adjusted more frequently in jurisdictions with higher levels of inflation. An additional percentage point of inflation corresponds with a drop in the time that has elapsed since last coverage change of 0.6 years. However, the relationship does not appear to be particularly linear in nature, and thus measures of correlation and/or simple linear regressors should be viewed with caution.



Regardless, a significant number of economies may be expecting a period of high(er) inflation. In such cases, deposit insurers should be prepared for a review of coverage levels more frequently than every five years as such a review may be informed or triggered by inflation levels. Decision-making processes for inflation-induced review differ substantially, both in speed and in actors involved.



The current macroeconomic environment also exposes deposit insurers to the risk of a general deterioration of economic conditions. To reduce inflationary risks, contractionary monetary policies are likely to negatively affect consumer and business sentiment<sup>7</sup> and to downgrade equity and bond valuations. In addition, labour markets may tighten, and the incidence of non-performing loans may increase. The financial stability concerns this may cause depend heavily on the

<sup>7</sup> Within many advanced economies (particularly the United States and Australia), 2022 levels of consumer sentiment were at levels not observed since the GFC of 2008.

capital endowment of banks (which has markedly improved in recent years in many jurisdictions) and on the scope of potential upcoming shocks.

In January 2023, the IMF<sup>8</sup> slightly increased its previously gloomy global growth expectations to 2.9 percent in 2023. However, expectations are for an uneven distribution of growth. Significantly higher growth is expected in emerging economies. In nine out of ten advanced economies, growth is expected to slow down as compared to 2022. In addition, at least three factors call for caution.

- First, high inflation is not yet overcome. Despite recent and decisive action by central banks, risks for a renewed rise in (core) inflation persist e.g. through secondary effects, that may require central banks to further increase interest rates. This would further slowdown economic growth and could in particular negatively affect those low-income economies where debt rates are very high.
- Second, a renewed surge of COVID-19 cases and associated restrictions would again expose the economy to supply chains bottlenecks and negatively impact growth.
- The third and perhaps most serious risk relates to geopolitical tensions. Not only may a further escalation of the war in Ukraine cause renewed increases in energy and food prices. National or regional security considerations and signs of rivalry between economic blocs may further cause trade tensions and global economic fragmentation. This would likely impact very differently on economies and associated banking industries.<sup>9</sup>

These characteristics together equate to a period of substantial uncertainty ahead that should be monitored closely by deposit insurers.

## 2.2 Key issue 2: Deposit Insurers and bank resolution

The role of deposit insurers in bank resolution activities is a key issue retained from the last of these reports.<sup>10</sup> Deposit insurers' role in resolution varies significantly across jurisdictions, depending on deposit insurers' mandate and on legislative and resolution frameworks in place. As illustrated above, deposit-insurers' involvement in resolution decision making ranges from being the sole decision-maker to very limited involvement. Nevertheless, the long-term trend of wider deposit insurer mandates can be expected to lead to increased involvement of deposit insurers in resolution. Pay-box plus deposit insurers may regularly be expected to financially contribute to the costs of bank resolution, the details of which may in part be decided for by third parties. In addition, deposit insurers may be mandated to intervene early in banks or to design and finance alternative measures to payout.

*One or more of the available resolution methods allows the flexibility for resolution at a lesser cost than otherwise expected in a liquidation net of expected recoveries.*

*IADI Core Principles for Effective Deposit Insurance Systems (Principle 14: Failure Resolution, Essential Criteria 5)*

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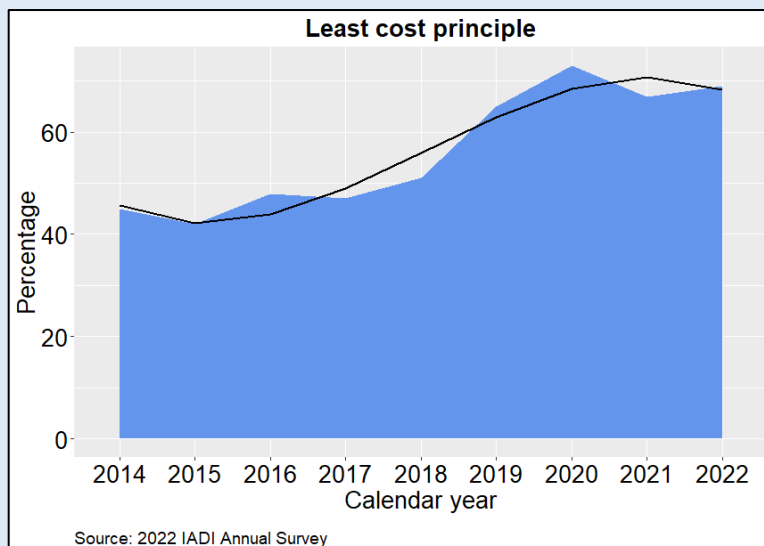
<sup>8</sup> IMF (2023)

<sup>9</sup> Georgieva (2023)

<sup>10</sup> Van Roosebeke & Defina (2022a)



The financial and/or organisational support by deposit insurers of non-payout bank crisis management measures may prove beneficial to financial stability in avoiding lengthy liquidation procedures. At the same time, safeguards may be necessary to protect the deposit insurer’s fund (which may be subject to use by other financial safety-net partners) from depletion. For this reason, many jurisdictions (particularly in the EU) have introduced constraints on the use of deposit insurers’ funds in non-payout resolution, whereas other deposit insurers constraints may derive from



their institutional mandate.<sup>11</sup> These financial constraints often include a “least cost” principle for the deposit insurer and/or resolution authority, comparing the costs of different resolution options, including the costs of reimbursing depositors. A growing share (now about 70%) of deposit insurers have indicated this is relevant in their jurisdiction. However, the institutional setup of the bank failure management framework affects the way constraints are designed. Of relevance here is whether the deposit insurer is also the resolution authority and whether a resolution fund is present in addition to a deposit insurance fund.<sup>12</sup>

IADI and a number of other international organisations are increasingly focussing on bank resolution. In the 2023/2024 financial year, IADI will prioritise efforts on bank resolution activities and will work towards updating its 2006 Guidance Paper in this field. Other pertinent policy dynamics have also evolved in the last twelve months. International standard setters including the Financial Stability Board have progressed deliberations on best practice use of resolution tools when applied to non-G-SIB<sup>13</sup> institutions, including financial cooperatives. The European Union is also set to review its bank crisis management and deposit insurance framework in 2023.

### 2.3 Key issue 3: Digitalisation, CBDCs, crypto-assets and stablecoins

Digitisation as a megatrend is reshaping existing value chains in and across a growing number of markets, including financial markets. This is set to affect deposit insurers in a number of direct and indirect ways. Some of the most relevant channels of influence include:

#### *Operational challenges and policy questions*

New products and services in financial markets may confront deposit insurers with fundamental questions regarding the fulfilment of their mandate. This may include policy questions as to the potential coverage of new financial products. Given the novel nature of some of these products, and at times of the actors involved, assessing and pricing associated risks may be a challenge to deposit insurers. In addition to policy questions, practical issues may grow in relevance, that

<sup>11</sup> See Costa at al. for a recent survey across 13 jurisdictions (2022)

<sup>12</sup> See also a number of [IADI Podcasts](#) on resolution issues, such as Podcast No. 3 on the “Resolution of Financial Cooperatives”, Podcast No. 5 on the “Resolution of State-Owned Banks” and Podcast No. 6 on “Counting the Cost of Payout”

<sup>13</sup> G-SIBs are Globally Systemically Important Banks, updated annually by the Financial Stability Board: <https://www.bis.org/bcbs/gsib/>

pose a challenge to the deposit insurer's ability to fulfil its mandate (e.g. prompt reimbursement). These issues may go back to the fintech-related use of certain financial constructs (e.g. the increased relevance of beneficiary accounts through e-money issuers or deposit brokerage platforms) or the involvement of third parties, the cooperation with which may be relevant to the deposit insurer to fulfil its mandate.

### *New risks*

Digitisation and fintech developments may change business models. This may give rise to new risks (or may increase the relevance of existing risks) that are important to deposit insurers. As an example, the emergence of internet-only banks, 24/7 instant payment systems and the role of social media platforms may affect banks' liquidity risks; and the use of third party services such as cloud services can entail operational risks for banks. Deposit insurers may wish to re-evaluate these risks faced by their bank members.

### *Public awareness*

Given the novel nature of emerging products and services offered to retail customers in the fintech sphere, it may not always be beyond doubt and/or clear to customers whether these products and services are covered by deposit insurance. For instance, many deposit insurers are currently seeking to clarify that cryptocurrencies do not fall within scope of the deposit insurance scheme – the Canada Deposit Insurance Corporation's public awareness programme is a notable example<sup>14</sup>. In addition, communication by suppliers on their deposit insurance status may be misleading – in May 2022 the Federal Deposit Insurance Corporation (FDIC) and the United States Consumer Financial Protection Bureau took action addressing prohibited practices on claims about Federal Deposit Insurance Corporation coverage<sup>15</sup>. This may be challenging for deposit insurers from a public awareness policy point of view given the speed of innovation and new products and services launched in the marketplace.

### *Cross-border*

Digital innovation eases cross-border supply of financial services through a more dynamic suite of distribution channels, thus increasing the likelihood for deposit insurers to incur member banks with a significant share of non-domestic depositors. In the case of a payout following bank default, this may create additional challenges to deposit insurers.<sup>16</sup> Cross-border activities may also facilitate additional financial stability risks, making cross-border cooperation between deposit insurers and other financial safety net participants all the more relevant.

### *Opportunities through new technology*

Whilst new technologies may pose new risks to financial safety net participants, digital innovation also offers opportunities for deposit insurers to fulfil their mandate in more efficient and effective ways. The benefits of innovation

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<sup>14</sup> <https://www.cdic.ca/your-coverage/faqs/#:~:text=CDIC%20does%20not%20cover%20digital,what's%20covered%20and%20what's%20not.>

<sup>15</sup> <https://www.fdic.gov/news/press-releases/2022/pr22041.html> and <https://www.consumerfinance.gov/about-us/newsroom/cfpb-takes-action-to-protect-depositors-from-false-claims-about-fdic-insurance/>

<sup>16</sup> Recently, bank failures have led to a number of cross-border cooperation cases between deposit insurers in reimbursement, e.g. in Austria and Germany.

encompass areas of direct relevance to deposit insurers including modernisation in reimbursement<sup>17</sup>, supervision<sup>18</sup> and resolution activities.<sup>19</sup>

### *Operational risks of cybersecurity*

Increased use of digital services comes with numerous advantages, but also entails operational risks e.g. in the form of cybersecurity risk. The unavailability of essential technical infrastructure or criminal activity against such infrastructure has the potential to significantly impair banks' and deposit insurers' business continuity and could make resolution action necessary.

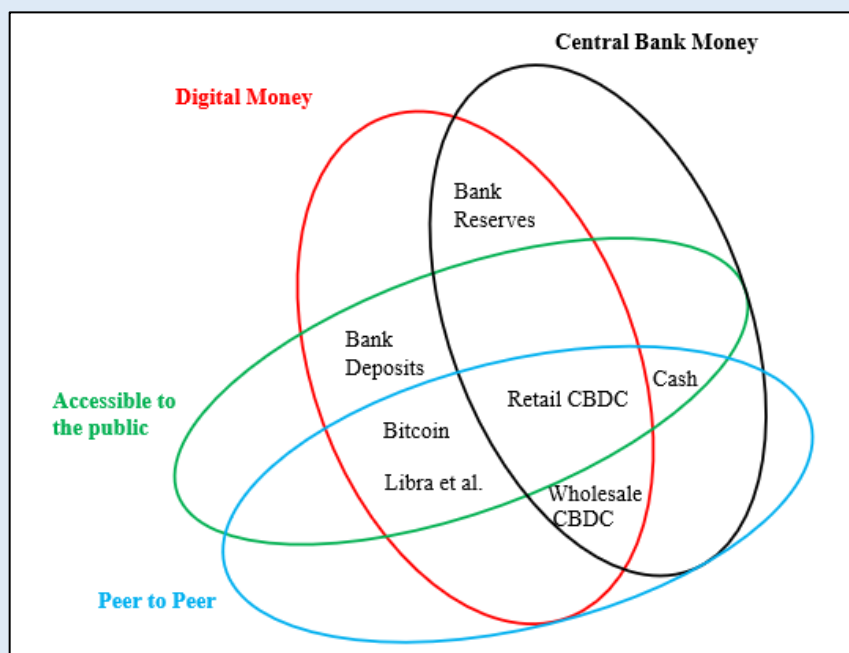
### *Competition in banking markets*

In many markets, digitalisation goes hand in hand with significant economies of scale. First-mover advantages, platform economies and the role of data in these markets may reinforce tendencies for concentration. This may give rise to significant concerns regarding market dominance by a small number of actors. If, in the medium term, such concerns were to materialise also in financial markets, this may also impact on deposit insurers. Competition issues as well as their potential impact on financial stability and intermediation have drawn significant interest of policy makers across the world. It remains to be seen whether deposit insurers will eventually face higher cluster risks, and this may potentially require consideration in premium calculation and fund sizes.

### *Central Bank Digital Currencies*

In addition to these overall effects of digitalisation on deposit insurance, two topics stand out in recent discussions: Central Bank Digital Currencies (CBDC) and Stablecoins.

Despite recent turmoil on crypto-markets, CBDC remain an element of strategic medium-term importance to deposit insurers. As an increasing number of central banks continues to further research and planning efforts, CBDC are unlikely to decrease in relevance in the coming years. This is so as central banks motivation for CBDC has not changed.<sup>20</sup> Central banks face a risk of large-scale use by the public of private or foreign public digital currencies, that may not be backed by or denominated in the domestic currency. These currencies may play a decisive role in the economy, and if foreign based, may be largely out of



<sup>17</sup> See the work by IADI's Reimbursement Technical Committee and Fintech Technical Committee.

<sup>18</sup> For example, see IADI Fintech Brief No. 14 – Wenwen Yeh (2023)

<sup>19</sup> For more details, see Garnett et al. (2022)

<sup>20</sup> Van Roosebeke, B., Defina, R. (2023a)



reach of domestic legislation. CBDC and/or efficient private payment solutions in the domestic currency may assist in mitigating this risk.

When made available to the general public as retail CBDC, these would constitute a wide-spread central bank liability and a form of digital cash (see adjacent money flower). To the public, they would be an alternative to central bank issued cash and – to a certain extent – to private money, such as bank deposits.

The impact of CBDC on deposits and hence deposit insurance is largely unknown as of today. The operating models and design features of each individual jurisdiction’s CBDC will be a crucial factor for that impact.<sup>21</sup> These will affect factors of key interest to deposit insurers, such as the degree of replacement of bank deposits by CBDC. Also, the implications of choices regarding operating models and design features extend to the division of labour between central and commercial banks and the degree of privacy attached to CBDC usage. These policy decisions are likely to play a decisive role in shaping the future of payment systems worldwide.

Given the inherent links between such systems and the objectives and operations of deposit insurers, it is expected that the topic of CBDC will continue to grow in relevance for IADI and its members. Deposit insurers are advised to keep abreast of developments and policy deliberations as they emerge. For this reason, the International Association of Deposit Insurers is continuing to engage with central bank digital currencies as a priority area of research in the medium term.

### ***Crypto-assets and Stablecoins***

Stablecoins are a sub-set of crypto-assets. They aspire to maintain a stable value vis-à-vis a specified asset or pool of assets. The common way of safeguarding that stability is through the backing of the stablecoin with reserve assets. This differentiates stablecoins from unbacked crypto-assets, such as Bitcoin.

In a number of jurisdictions, policy discussion on crypto-asset regulation, including stablecoins, have increasingly become relevant.<sup>22</sup> However, domestic regulation on the design and governance of stablecoins is not generally in place. Global standards also have not yet been developed. As a result, the degree of backing of the stablecoin with assets, the composition and eligibility of these assets as well as the redemption rights by users may vary significantly globally or may remain unregulated.

On the global standard setting level, attention has focussed on “global stablecoins”. The FSB distinguishes such global stablecoins from other stablecoins through their potential for adoption across multiple jurisdictions and the potential to achieve substantial volume.<sup>23</sup> Factors relevant for such global reach are likely to include platforms economics, access to data and vertical integration with other digital services offer by, e.g. BigTechs. The FSB points to a need for cross-border cooperation, as stablecoins may pose systemic risk globally, without doing so in any jurisdiction.<sup>24</sup>

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<sup>21</sup> See Van Roosebeke, B., Defina, R. (2022d) for more detail.

<sup>22</sup> As an example, Japan has adopted its third legal reform of the crypto asset regulatory framework in June 2022. In the EU, the MICA-Regulation on Markets is likely to be formally adopted in early 2023 to take full effect by the end of 2024. Stablecoin rules may enter in effect early, i.e. by early 2024.

<sup>23</sup> FSB (2020)

<sup>24</sup> Ibid.

In October 2020, the FSB issued a report with a set of ten high-level recommendations on consistent and effective regulation, supervision and oversight of global stablecoins across jurisdictions. In October 2022, following sharp price corrections in the crypto market, the FSB reviewed these recommendations and put its revisions up for public consultation.<sup>25</sup> By mid-2023, the FSB aims to finalise its updated high-level recommendations.

The implications of these ongoing discussions for deposit insurers remain largely unclear for the time being. However, along the principle of “same activity, same risk, same regulation”, and given that crypto-assets service providers may perform functions such as supplying payment or store of value services similar to actors in the traditional financial sector, further regulatory discussion on global stablecoins seem imminent and will be highly relevant for deposit insurers. In its latest report, the FSB has stressed the need for stablecoin users to have a legal claim on the stablecoin issuer. In addition, such a claim should be redeemable (at par in fiat currency) in a timely manner. The failure of an intermediary should not hinder such redeemability. The FSB stresses that a stablecoin issuer’s failure to guarantee such redeemability could lead to “a run on the stablecoin”, which can “lead to a more generalised loss in confidence in deposits and other liabilities of other banks”. Such reasoning seems to reflect the belief of analogy of fiat-backed stablecoins with bank deposits; with the subsequent implications for deposit insurance.

Other ongoing activities include the FSB’s efforts in regulation, supervision and oversight of crypto-asset activities and markets. Amongst others, this includes crypto service suppliers that may engage in deposit-like gathering activities by attracting users’ crypto assets. The Basel Committee for Banking Supervision has concurrently endorsed, in December 2022, a global prudential standard for banks’ exposures to crypto-assets. In addition, it has announced it will assess the role of banks as stablecoin issuers, custodians of crypto-assets and broader potential channels of interconnections within the crypto-asset ecosystem.<sup>26</sup>

IADI’s Fintech research has made considerable progress over the last year, with a variety of topics explored and case studies presented. Whilst dynamics surrounding e-money issuance remain of interest to deposit insurers, the finalisation of numerous case studies<sup>27</sup> have enabled the community to turn to other strategic topics. CBDCs and stablecoins have emerged as an area of great potential but also a tremendous challenge. Recent research<sup>28</sup> has highlighted a need for deposit insurers to further understand CBDC motivation(s), operating models, design features and how these link to early global policy standards.

## **2.4 Key issue 4: Climate Change and ESG**

Climate change is a global challenge. The direct (mostly physical) impacts of climate change itself, but also the indirect impacts (mostly as a consequence of policy measures taken to alleviate climate change, i.e. transition risks) will likely affect economies globally for many years to come. The exact scope and size of these impacts is subject to great

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<sup>25</sup> FSB (2022)

<sup>26</sup> BCBS (2022)

<sup>27</sup> Senyo Okae et al. (2022); Kuwahara & Hara (2022); Colao & Kahaneck (2022) and IADI Podcast No. 4 (<https://www.iadi.org/en/news-and-media/podcast/>).

<sup>28</sup> Van Roosebeke & Defina (2022d); Van Roosebeke & Defina (2023a)

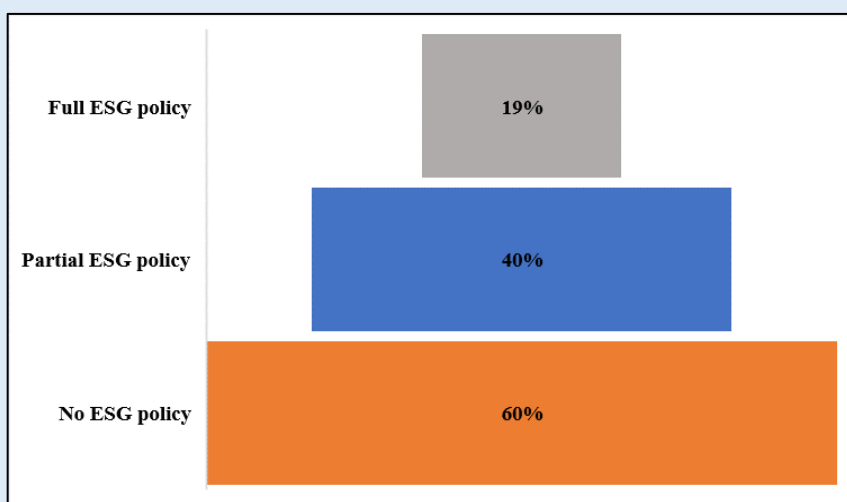
uncertainty. They will vary across regions and economic sectors and will depend on technological progress and the nature and speed of climate policies adopted.<sup>29</sup>

For deposit insurers, five climate related challenges were recognised that may potentially affect them.<sup>30</sup> These include (1) operational challenges; (2) financial stability risks; (3) bank default risks and resolution costs; (4) supervision and (5) DI fund management.

Global standard-setting work in the climate field focusses on supervision, financial stability risks and on increasing financial actors' disclosure on climate risks.<sup>31</sup> This work and the speed and intensity with which climate policies will internalise external costs of climate change, remains of high relevance to financial stability and thus to deposit insurers.

Recently, interest by deposit insurers has broadened to capture more than simply climate change. Environment, social and governance (ESG) deliberations have

increasingly attracted the attention of deposit insurers.<sup>32</sup> A 2022 survey of IADI members indicated that 40% of deposit insurers have a formalised policy in place covering at least one of the three ESG elements, with approximately half of those making this policy publicly available.<sup>33</sup> It is clear that governance issues constitute most of the ESG engagement, followed by social and environmental issues. Although 60% of deposit insurers do not have a formalised ESG policy that goes beyond existing legal



*Prevalence of ESG formal policies by deposit insurers. Taken from Van Roosebeke and Defina (2023)*

obligations, a majority (62%) of those expect to develop a (partial) ESG policy within the next two years. If this were to materialise, the share of deposit insurers with a formal ESG policy would raise from 40% in 2022 to 77% in 2024.

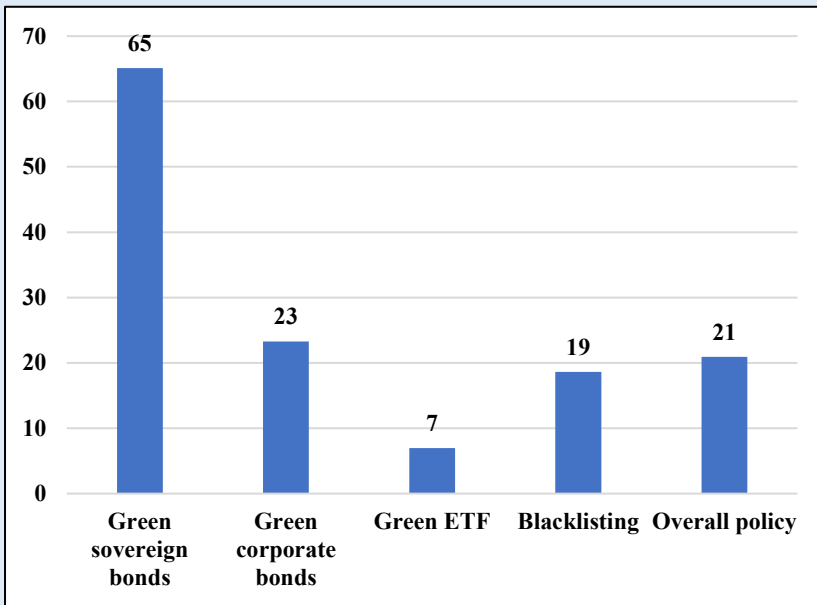
<sup>29</sup> See Alogoskoufis et al. (2022) in the ECB economy-wide stress test, pointing out both the concentration of risks in certain geographical areas and sectors as well as the benefits of early action, arguing that there is a non-linear increase in physical risks over time.

<sup>30</sup> Van Roosebeke & Defina (2021)

<sup>31</sup> Of special relevance is work by the FSB, the Network for Greening the Financial System (NFGS) and the Basel Committee. The latter included climate-related financial risks as priority in its 23/24 working plan.

<sup>32</sup> As an example, a joint webinar between the IADI European Regional Committee and European Forum for Deposit Insurers titled “Green Deposit Guarantee Schemes and Non-Financial Reporting: New Challenges for Deposit Guarantee Schemes” was one of many initiatives held in 2022 relevant to the topic.

<sup>33</sup> Van Roosebeke & Defina (2023)



*Most likely investment options if a climate policy were to be considered by deposit insurers. Taken from Van Roosebeke and Defina (2023b, forthcoming)*

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. However, 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 the deposit insurers' ability to establish a climate-related fund management. Green/sustainable sovereign bonds – if available – were identified as the most likely investment option for deposit insurers wishing to pursue a climate investment policy.

## 2.5 Key Issue 5: IADI Core Principle Review and Update

IADI's work on reviewing and updating the 2014 IADI Core Principles as international standard for effective deposit insurance has made significant process in the past months and further progress is expected in the course of 2023.

On the basis of a process that was agreed by the IADI Executive Council in March 2022, a Steering Committee was established, with fair representation from each mandate, region, jurisdictions with multiple deposit insurance systems and Islamic deposit insurance systems. In 2022Q3, a membership-wide survey on the review and update of the IADI Core Principles was conducted. With participation representative of IADI's mandates and regions, the feedback suggested a high level of overall satisfaction with the Core Principles and a limited need for revision.

Since mid-2022, the Steering Committee had discussed suggestions for changes to the Core Principles during a set of meetings, following which draft updated versions of the Core Principles have been prepared. Upon approval by the IADI Executive Council on an updated version, discussions in a Joint Working Group with other international financial institutions such as the Basel Committee for Bank Supervision, the European Commission, the European Forum of Deposit Insurers, Financial Stability Board, Financial Stability Institute, International Monetary Fund and the World Bank Group will commence. Following approval of the final set of updated Core Principles by the IADI Executive

Climate related financial risks are not commonly incorporated explicitly by deposit insurers when managing funds. At the same time, there seems to be wide-spread sentiment amongst deposit insurers that such climate risks are not taken sufficiently into account when managing funds. Currently, 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.

Council, these will be presented to the FSB for inclusion in their Compendium of Standards under Key Standards for Sound Financial Systems.



### 3 References

- Alogoskoufis, S., Dunz, N., Emanbakhsh, T., Hennig, T., Kaijser, M., Kouratzoglou, C., Munoz, M., Parisi, L., Salleo, C. (2022). ECB economy-wide climate stress test. *European Central Bank Occasional Paper Series, No. 281*.
- BCBS. (2022). Basel Committee work programme and strategic priorities for 2023/24, December 2022.
- Colao, C., Kahanek, R. (2022). Beneficiary Accounts: Challenges for Deposit Insurance Schemes *International Association of Deposit Insurers Fintech Brief No. 7, April 2022*.
- Costa, N., Van Roosebeke, B., Vrbaski, R. and Walters, R. (2022). Counting the Cost of Payout: Constraints for Deposit Insurers in funding Bank Failure Management, *FSI Insights No 45, July 2022*.
- Defina, R. (2021). Banking Resolution: Expansion of the Resolution Toolkit and the Changing Role of Deposit Insurers. *International Association of Deposit Insurers Policy Brief No. 3, August 2021*.
- EU. (2014). Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes. *Official Journal of the European Union, 173/149*.
- FSB. (2020). Regulation, Supervision and Oversight of Global Stablecoin Arrangements. Final report and High-Level Recommendations. *Financial Stability Board, October 2020*.
- FSB. (2022). Review of the FSB High-level Recommendations of the Regulation, Supervision and Oversight of Global Stablecoin Arrangements. *Consultative Report. Financial Stability Board, October 2022*.
- Garnett, E., Youssef, R., Hoople, D. (2022). Introductory Brief (Part II): Opportunities for Deposit Insurers (DepTech) *International Association of Deposit Insurers Fintech Brief No. 8, July 2022*.
- IMF. (2023). Global Economy to Slow Further Amid Signs of Resilience and China Re-opening. *International Monetary Fund World Economic Outlook Update, January 2023*.
- Garnett, E., Youssef, R., Hoople, D. (2022). Opportunities for Deposit Insurers (DepTech). *International Association of Deposit Insurers Fintech Brief No. 8, July 2022*.
- Georgieva, K. (2023). Confronting Fragmentation Where It Matters Most: Trade, Debt, and Climate Action. IMF Blog
- Hud Saleh Huddin, M., Lee, M., Sobri Mansor, M. (2022). Islamic Fintech: Nascent and on the Rise *International Association of Deposit Insurers Fintech Brief No. 11, September 2022*.
- International Monetary Fund, World Economic Outlook Update, January 2023.
- Jae, S., Park, J. (2022). Misdirected Money Transfers in Korea. *International Association of Deposit Insurers Fintech Brief No. 12, November 2022*.
- Kuwahara, H., Hara, K. (2022). Prepaid Cards: A Case Study of Japan, the United States and the European Union *International Association of Deposit Insurers Fintech Brief No. 10, September 2022*.
- Senyo Okae, S., Yarboi Mensah, E. (2022). E-Money in Ghana - A Case Study. *International Association of Deposit Insurers Fintech Brief No. 9, August 2022*.
- Van Roosebeke, B., Defina, R. (2021). Climate Change Fever – Can Deposit Insurers stay Cool? *International Association of Deposit Insurers Policy Brief No. 5, October 2021*.
- Van Roosebeke, B., Defina, R. (2022). Deposit Insurer Fund Size Implications of COVID-19, *International Association of Deposit Insurers Survey Brief No. 3, June 2022*.
- Van Roosebeke, B., Defina, R. (2022a). IADI Deposit Insurance Report: Global Trends and Key Emerging Issues. *International Association of Deposit Insurers, February 2022*.

Van Roosebeke, B., Defina, R. (2022b). How Deposit Insurers Account for Inflation: Practices and Existing Guidance. *International Association of Deposit Insurers Policy Brief No. 7, November 2022.*

Van Roosebeke, B., Defina, R. (2022c). How Inflation Impacts Deposit Insurance: Real Coverage and Coverage Ratio. *International Association of Deposit Insurers Policy Brief No. 6, August 2022.*

Van Roosebeke, B., Defina, R. (2022d). Central Bank Digital Currencies: A Review of Operating Models and Design Issues. *International Association of Deposit Insurers Fintech Brief No. 13, December 2022.*

Van Roosebeke, B., Defina, R. (2023). ESG and Deposit Insurance: Taking Stock and Looking Ahead. *International Association of Deposit Insurers Survey Brief No. 4, January 2023.*

Van Roosebeke, B., Defina, R. (2023a). Central Bank Digital Currencies: The Motivation. Fintech, Pandemic, and the Financial System: Challenges and Opportunities (International Finance Review, Vol. 22). *Emerald Publishing Limited, Bingley, pp. 185-200.*

Van Roosebeke, B., Defina, R. (2023b, forthcoming). The Role of Climate in Deposit Insurers' fund Management: More Than a Financial Risk Factor? *International Association of Deposit Insurers Survey Brief No. 5.*

Yeh, W. (2023). The Use of Fintech in Enhancing the Supervision of Internet-only Banks in Chinese Taipei. *International Association of Deposit Insurers Fintech Brief No. 14, January 2023*