

Journal of Financial Crises

Volume 4 | Issue 2

2022

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Recommended Citation

McNamara, Christian M.; Kulam, Adam; Feldberg, Greg; and Metrick, Andrew (2022) "Account Guarantee Survey," *Journal of Financial Crises*: Vol. 4 : Iss. 2, 40-85.
Available at: <https://elischolar.library.yale.edu/journal-of-financial-crises/vol4/iss2/2>

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Account Guarantee Survey¹

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Yale Program on Financial Stability Survey

July 15, 2022

Abstract

This paper surveys 27 account guarantee (AG) programs across 14 Key Design Decisions. The main themes that emerge are: (a) the importance of considering the effects of AG programs on other parts of the financial system or other jurisdictions, (b) the ability to address moral hazard through heightened supervision, which removes a potential obstacle to adopting AG programs in response to the acute phase of crises, (c) the necessity of developing guarantees that are credible and timely, and (d) the need to design standing AG programs with an eye toward how they will function during crises.

Keywords: account guarantee, deposit insurance

1 This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering account guarantee programs. Cases are available from the Journal of Financial Crises at <https://elischolar.library.yale.edu/journal-of-financial-crises/>.

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Introductory Note: This survey is an analysis of important considerations for policymakers seeking to establish an account guarantee (AG) program. It is based on insights derived from case studies of 27 specific AG programs the Yale Program on Financial Stability has completed and from the existing literature on the topic. While this survey can help inform a decision about whether or not to establish an AG program, our main purpose is to assist policymakers who have already made that decision in designing the most effective program possible. In analyzing the programs that are the focus of this survey, we used a color-coded system to highlight certain particularly noteworthy design features.

Treatment	Meaning
BLUE – INTERESTING	A design feature that is interesting and that policymakers may want to consider. Typically, this determination is based on the observation that the design feature involves a unique and potentially promising way of addressing a challenge common to this type of program that may not be obvious. Less commonly, empirical evidence or a consensus will indicate that the design feature was effective in this context, in which case we will describe that evidence or consensus.
YELLOW – CAUTION INDICATED	A design feature that policymakers should exercise caution in considering. Typically, this determination is based on the observation that the designers of the feature later made significant changes to the feature with the intention of improving the program. Less commonly, empirical evidence or a consensus will indicate that the design feature was ineffective in this context, in which case we will describe that evidence or consensus.
<i>FOOTNOTE IN ITALICS</i>	Where the reason that a given design feature has been highlighted is not apparent from the text, it is accompanied by an italicized footnote that explains why we chose to highlight it. Where necessary, these footnotes will be used to identify any considerations that should be kept in mind when thinking about the feature.

This highlighting is not intended to be dispositive. The fact that a design feature is not highlighted or is highlighted yellow does not mean that it should not be considered or that it will never be effective under any circumstances. Similarly, the fact that a design feature is not highlighted or is highlighted blue does not mean that it should always be considered or will be effective under all circumstances. The highlighting is our subjective attempt to guide readers toward certain design features that (1) may not be obvious but are worth considering or (2) require caution.

Introduction

Bank runs have accelerated financial crises throughout history. Widespread withdrawals from accounts that enable depositors to access their funds on demand can have a destabilizing effect on institutions lacking the liquid assets to meet those withdrawal requests. Governments have a long record of responding to runs with ad hoc measures to support banks, often protecting depositors and other stakeholders in the process. But until the 1960s, only the United States had a formal, standing guarantee to depositors that they would receive their funds back even in the event of an institution's failure. Historians attribute the early US adoption of explicit deposit insurance to the country's unusual reliance on small banks and its history of periodic banking panics (Anginer, Demirgüç-Kunt, and Zhu 2014; Calomiris and Jaremski 2016). As bank failures became more common in the 1970s and 1980s, other countries increasingly adopted explicit national deposit insurance systems to replace the implicit insurance implied by ad hoc rescues. The move toward explicit insurance accelerated as the European Union (EU), International Monetary Fund (IMF), and World Bank (WB) promoted the practice in the 1990s. But adoption in any given country was most likely during or after a banking crisis (Demirgüç-Kunt, Kane, and Laeven 2008).

This paper surveys 27 account guarantee (AG) programs adopted during the Global Financial Crisis (GFC). Each case represents an effort to eliminate depositors' incentive to remove funds from accounts by guaranteeing that those accounts will be paid out even if the institution that holds them is unable to do so. Figure 1 lists the 27 programs. The cases include both the adoption of new, formal deposit insurance programs during crises and the expansion of existing, similar programs. The latter always involved a significant increase in coverage limits, whether to a new, higher limit or by becoming unlimited. Often these increases were accompanied by other changes, such as the elimination of co-insurance, the expansion of institutional and account eligibility, and the speeding up of payouts. Not included among these cases are any programs in which accounts were guaranteed as part of a blanket guarantee on all or nearly all liabilities of the banking system (as was the case, for example, in Ireland). These blanket guarantee programs have unique considerations and will be surveyed in a future paper.

The main body of the paper analyzes 14 Key Design Decisions. Wherever possible, we explore why policymakers responded the way they did. The paper seeks to distill important considerations for policymakers when establishing AG programs. Among the themes that emerge are (a) the importance of considering the effects of AG programs on other parts of the financial system and other jurisdictions; (b) the ability to address moral hazard through heightened supervision, removing a potential obstacle to adopting AG programs in response to the acute phase of crises; (c) the necessity of developing guarantees that are credible and timely; and (d) the need to design standing AG programs with an eye toward how they will function during crises.

This survey contributes to an extensive literature on deposit guarantees. This literature has long shown that deposit insurance protects deposits and helps prevent bank runs. It has also highlighted the potential moral hazard concerns of guaranteeing bank deposits. In this view, the removal of the threat of loss erodes market discipline by causing depositors to abandon

their scrutiny of banks, which can encourage bank managers to take greater risks (Anginer and Demirgüç-Kunt 2018). A review of 96 countries between 2004 and 2009 showed strong evidence of both effects (Anginer, Demirgüç-Kunt, and Zhu 2014). Countries that had established generous deposit insurance schemes by 2003 experienced greater bank risk and systemic fragility in the run-up to the GFC, but then performed better once the crisis began. However, this study did not consider the effects of account guarantees that countries introduced or strengthened during the crisis.

To frame our discussion of crisis-era AG programs, it is helpful to think of financial crises and policy responses as having two phases: acute and chronic. In the initial acute phase, the financial system has an obvious liquidity problem—runs on banks are easy to spot—but the underlying solvency of the financial system is difficult to judge. During this acute phase, policy responses need to be fast and emphasize direct liquidity support, either in the form of emergency lending or liability guarantees. To achieve these goals, policy should be targeted to influence the behavior of depositors and other suppliers of short-term credit to banks, rather than to the banks themselves.

In the later, chronic phase, the immediate liquidity pressures have eased but any underlying solvency problems remain. In the traditional banking sector, a chronic phase would be characterized by low capital levels at banks and balance-sheet pressure that hold back long-term lending. A chronically weak banking sector is a drag on economic growth, and is a main reason that downturns are deeper and recoveries take longer in recessions that follow financial crises (Jordà, Schularick, and Taylor 2013). During the chronic phase, policy should be targeted to influence the behavior of the banks themselves.

We believe that moral-hazard concerns should be given different weight in the acute and chronic phases. In the acute phase—where most of the programs studied here were introduced—the focus needs to be on the immediate behavior of depositors. With uncertainty about bank solvency, it would not be rational for depositors to do any deep analysis of their banks. The simplest response to solvency concerns is to withdraw one's deposits, since withdrawal has only a nuisance cost but potentially a large benefit. Though depositor runs may provide a check on moral hazard, reliance on depositor runs as a form of market discipline is not an efficient means for addressing moral hazard and could be disastrous during the acute phase of a crisis.

In a chronic phase, moral-hazard concerns should play a larger role. Here, policymakers are looking to influence bank behavior directly, with incentives for banks to do more lending and make changes to their risk profiles. AG programs in the chronic phase can induce banks to make riskier loans and can distort the competitive landscape among banks and other nonbank institutions. That said, scaling back AG programs prematurely during the chronic phase of a crisis could reaggravate liquidity pressures. As will be discussed and is demonstrated by many of the AG programs studied, heightened supervision of the institutions covered by expanded guarantees can guard against the moral-hazard concerns that arise during the chronic phase of crises.

Figure 1: Programs Covered in This Survey

Case Title	Country Code	Date of announcement	Crisis level(s)	Reference
Australia: Financial Claims Scheme	AUS	10/12/2008	Unlimited; AUD 1 million	Vergara 2022a
Austria: Unlimited Deposit Guarantee	AUT	10/8/2008	Unlimited	Nunn 2022a
Belgium: Protection Fund/Special Protection Fund	BEL	10/10/2008	EUR 100,000	Kulam 2022a
Brazil: Time Deposits with Special Guarantee	BRZ	3/26/2009	BRL 20 million (time deposits)	Nunn 2022b
France: Deposit Guarantee Fund	FRA	9/29/2010	EUR 100,000	Vergara 2022b
Greece: Hellenic Deposit Guarantee Fund	GRC	10/8/2008	EUR 100,000	Engbith 2022a
Hong Kong SAR: Full Deposit Guarantee	HKG	10/14/2008	Unlimited	Vergara and Engbith 2022
Hungary: National Deposit Insurance Fund	HUN	10/8/2008	Unlimited; HUF 13 million; EUR 50,000; EUR 100,000	Lei and Vergara 2022
Iceland: Depositors' and Investors' Guarantee Fund	ICE	10/6/2008	Unlimited	Kulam 2022b
Indonesia Deposit Insurance Corporation	IDN	10/13/2008	IDR 2 billion	Engbith 2022b
Kuwait: Unlimited Deposit Guarantee	KWT	10/26/2008	Unlimited	Nunn 2022c
Latvia: Deposit Guarantee Fund	LVA	10/16/2008	EUR 50,000; EUR 100,000	Vergara 2022c
Association for the Guarantee of Deposits Luxembourg	LUX	10/17/2008	EUR 100,000	Vergara 2022d
Malaysia: Government Deposit Guarantee	MYS	10/16/2008	Unlimited	Vergara 2022e
New Zealand: Crown Retail Deposit Guarantee Scheme	NZL	10/12/2008	Unlimited; NZD 1 million; NZD 500,000 for banks and NZD 250,000 for non-banks	Vergara 2022f
Philippine Deposit Insurance Corporation	PHL	10/9/2008	PHP 500,000	Engbith 2022c
Portugal: Deposit Guarantee Fund	PRT	11/3/2008	EUR 100,000	Nygaard 2022
Romania: Bank Deposit Guarantee Fund	ROM	10/12/2008	EUR 50,000; EUR 100,000	Vergara 2022g
Russia: Deposit Insurance Agency (2008 - 2009)	RUS	10/13/2008	RUB 700,000	Vergara 2022h
Singapore: Government Guarantee on Deposits	SGP	10/16/2008	Unlimited	Vergara 2022i
Slovenia: Unlimited Deposit Guarantee	SVN	10/8/2008	Unlimited	Vergara 2022j
Spain: Deposit Guarantee Funds	SPA	10/10/2008	EUR 100,000	Vergara 2022k
Swiss Banks' and Securities Dealers' Depositor Protection Association	SWI	11/5/2008	CHF 100,000	Vergara 2022l
Taiwan (ROC): Central Deposit Insurance Corporation	TWN	10/7/2008	TWD 3 million; unlimited	Engbith 2022d
United Kingdom: Financial Services Compensation Scheme	UK	10/3/2008	GBP 35,000, then GBP 50,000	Vergara 2022m
United States: Temporary Guarantee Program for Money Market Funds	USA - TGMMF	9/19/2008	Unlimited	Vergara 2022n
United States: Transaction Account Guarantee Program	USA - TAGP	10/14/2008	Unlimited	Vergara 2022o

Sources: Engbith 2022a; Engbith 2022b; Engbith 2022c; Engbith 2022d; Kulam 2022a; Kulam 2022b; Lei and Vergara 2022; Nunn 2022a; Nunn 2022b; Nunn 2022c; Nygaard 2022; Vergara 2022a; Vergara 2022b; Vergara and Engbith 2022; Vergara 2022c; Vergara 2022d; Vergara 2022e; Vergara 2022f; Vergara 2022g; Vergara 2022h; Vergara 2022i; Vergara 2022j; Vergara 2022k; Vergara 2022l; Vergara 2022m; Vergara 2022n; Vergara 2022o

Key Design Decisions

1. Purpose: What were the specific motivations for introducing the AG program?

Despite each involving a similar desire to protect funds held in guaranteed accounts, usually with the stated objective of promoting liquidity for banks or the financial system broadly, the AG programs studied had a variety of motivations that provided the impetus for establishing a guarantee. Based on our analysis of the programs, we have identified four key motivations:

- **Actual Run:** Widespread withdrawals cause policymakers to adopt an AG program to halt or reverse those withdrawals.
- **Concerns about Confidence:** The fear that account holders may be losing confidence causes policymakers to adopt an AG program in a preemptive fashion to prevent a run.
- **Competitive Pressures:** The introduction of AG programs in other jurisdictions or other sectors of the domestic financial system causes policymakers to adopt an AG program to prevent the institutions and accounts covered from being at a competitive disadvantage.
- **Supranational Requirements:** The adoption of guidelines by supranational bodies, such as the EU, causes a need for policymakers to adopt an AG program to satisfy the guidelines.

As indicated in Figure 2, these motivations are not mutually exclusive, and programs often had more than a single motivation. All targeted the account holders and sought to influence their behavior.

Figure 2: Motivations by AG Program

Country	Responding to actual run	Responding to bolster depositor confidence	Responding to competitive pressures	Responding to specific guidelines or requirements
AUS	✓	✓	✓	-
AUT	-	✓	✓	✓
BEL	-	✓	✓	✓
BRZ	✓	-	-	-
FRA	-	-	-	✓
GRC	-	✓	✓	✓
HKG	✓	✓	✓	-
HUN	-	✓	✓	✓
ICE	✓	✓	-	-
IDN	-	-	✓	-
KWT	-	✓	✓	-
LUX	-	✓	✓	✓
LVA	-	✓	-	✓
MYS	-	✓	✓	-
NZL	-	✓	✓	-
PHL	-	✓	✓	-
PRT	-	✓	-	✓
ROM	-	✓	-	✓
RUS	-	✓	-	-
SGP	-	✓	✓	-
SPA	-	✓	-	✓
SVN	-	✓	✓	✓
SWI	✓	✓	✓	-
TWN	✓	✓	-	-
UK	✓	✓	-	-
USA - TAGP	-	✓	✓	-
USA - TGMMF	✓	-	-	-

Source: Authors' analysis.

For those programs introduced in response to an actual run, it is interesting to note who was running and to where. In Brazil, for instance, before the adoption of the Time Deposits with Special Guarantee (DPGE), depositors fled from small- and medium-sized banks to larger banks, with the apparent belief that the government was more likely to backstop the latter (Banco Central do Brasil 2009; Mesquita and Torós 2010). The opposite pattern prevailed in Switzerland during the GFC, perhaps based on the perception that the largest Swiss banks were too big relative to the size of the economy to be effectively rescued (IMF 2009a). In Taiwan, the government's seizure of a systemically important financial institution resulted in depositor runs from private banks to state-owned institutions (Marks and Yao 2008).

In some instances, the direction of an actual or feared run resulted in an AG program designed to assist the institutions at risk. Given the withdrawals from small- and medium-sized banks in Brazil, policymakers targeted the DPGE at a specific type of account—time deposits—on which such institutions were heavily reliant. Taiwan's Central Deposit

Insurance Corporation (CDIC) sought to shore up private banks by covering them with the unlimited guarantee that depositors may have believed that state-owned institutions implicitly possessed.

2. Part of a Package: Was the AG program intended to work on its own or was it introduced alongside, or otherwise seen as operating in tandem with, other policy interventions?

One of the earliest decisions confronted in designing an AG program is whether the program will operate alone or in combination with other policy interventions. The specific motivations underlying a particular AG program may influence this decision. For example, policymakers responding to, or anticipating, depositor runs typically take other measures to promote bank liquidity. They may fear that other liability-holders will lose confidence. During the GFC, many countries paired account guarantee and bank debt guarantee programs, such as the US with its two-pronged Temporary Liquidity Guarantee Program (TLGP).

Emergency lending programs, meanwhile, can replace lost liquidity. Such liquidity-focused interventions will be insufficient, however, when financial institutions' capital has eroded. For these institutions, injections of capital become necessary. Recapitalization programs are for this reason another recurrent component of packages involving AG programs. Early during the GFC, several countries acted quickly to recapitalize large, struggling financial institutions—such as UBS in Switzerland and Dexia in Belgium, France, and Luxembourg—while using account guarantees to reassure depositors in smaller institutions that their deposits were also safe.

Figure 3 shows which types of interventions policymakers combined with AG programs. Many of these combinations were not as obvious as the pairing of the Debt Guarantee Program and Transaction Account Guarantee Program (TAGP) under the TLGP umbrella. The determinations reflected in Figure 3 are based on the existence of some evidence indicating that policymakers thought of the AG program in question as operating in tandem with these other interventions.

Figure 3: Other Key Interventions Combined With AG Programs

Country	Existence of broad-based recapitalization	Existence of broad-based emergency lending	Existence of bank debt guarantees
AUS	-	-	✓
AUT	✓	-	✓
BEL	✓	-	✓
BRZ	-	✓	-
FRA	✓	✓	✓
GRC	✓	✓	✓
HKG	✓	-	-
HUN	✓	✓	✓
ICE	✓	✓	-
IDN	-	-	-
KWT	-	-	✓
LUX	✓	✓	✓
LVA	✓	✓	✓
MYS	-	✓	-
NZL	-	-	✓
PHL	-	✓	-
PRT	✓	✓	✓
ROM	-	-	-
RUS	✓	✓	✓
SGP	-	-	-
SPA	✓	✓	✓
SVN	✓	✓	✓
SWI	✓	✓	-
TWN	-	-	-
UK	✓	✓	✓
USA - TAGP	✓	✓	✓
USA - TGMMF	✓	✓	✓

Source: Authors' analysis.

Specific AG programs can also be thought of as forming part of a package with similar AG programs in related jurisdictions. The possibility of runs from non-guaranteed to guaranteed accounts (or, often more precisely, from accounts guaranteed up to one amount to accounts guaranteed up to a higher amount) creates incentives for jurisdictions with close financial ties to harmonize their approaches to AG programs. Policymakers in Malaysia and Singapore coordinated on the rollout of AG programs in response to Hong Kong's introduction of a full deposit guarantee. All three countries would later form the Tripartite Working Group to synchronize the joint termination of their programs to avoid any runs from one jurisdiction to another (IADI 2012). The EU likewise sought to coordinate member states' AG programs through the guidelines and directives discussed in more detail elsewhere in this paper. Unilateral action by individual member states could complicate these efforts, as when

announcements of unlimited guarantees by Germany, Austria, and Greece appeared to deepen rifts within the EU on crisis response (IMF 2009c).⁶

3. Legal Authority: What legal basis did policymakers rely on in establishing the AG program? Was there a need for new legislation or could they rely on existing authority?

In thinking about the legal bases relied on by policymakers in establishing AG programs and whether new legislation was required to do so, it is worth recalling that some of the programs studied were entirely new creations, while others were expansions of existing guarantees. While this distinction is not dispositive—there were newly created programs established under existing authority and expanded programs that required new legislation—as a general matter the initial establishment of a program may present more challenges than the expansion of an existing one, depending on the specific legal context.

Figure 4 divides the AG programs into those requiring a new act by a legislative body and those that relied on existing legal authority. Included in this latter category are programs created pursuant to an executive or other emergency decree. Some countries, like Indonesia, created or revised existing programs through executive decrees that the legislature later incorporated into law. A government could also rely on its existing legal authority if, for example, its laws already authorized the existing deposit insurance agency (Taiwan) or bank regulator (UK) to raise the insurance cap without legislative review. Whether or not a particular AG program required legislative approval is an important distinction, because securing such approval can (but does not necessarily) make it more difficult and time-consuming to launch a program. The Philippines is a cautionary tale on this front. Legislative wrangling resulted in a six-month delay between the announcement of an increase in its deposit insurance coverage and its actual authorization.

⁶ Greece's initial announcement of an unlimited guarantee was ultimately followed by an adopted increase to EUR 100,000.

Figure 4: AG Programs Requiring New Legislation

Country Code	Political guarantee	Legal guarantee	Required additional parliamentary or congressional approval	Conducted with unilateral or vested institutional authority	Days elapsed* between announcement and operation
AUS	-	✓	✓	-	47
AUT	-	✓	✓	-	-7
BEL	-	✓	✓ (permanent increase)	✓ (temporary increase)	-3
BRZ	-	✓	-	✓	0
FRA	✓	✓	-	✓	0
GRC	✓	✓	✓	-	31
HKG	-	✓	-	✓	0
HUN	✓	✓	✓ (for limited guarantee)	✓ (for unlimited guarantee)	7
ICE	✓	✓	✓	-	0
IDN	-	✓	✓	-	0
KWT	-	✓	✓	-	8
LUX	-	✓	✓	-	76
LVA	-	✓	✓	-	2
MYS	-	✓	✓ (retroactive establishment)	unknown	0
NZL	-	✓	✓ (for extensions and alterations)	✓ (for establishment)	0
PHL	-	✓	✓	-	235
PRT	-	✓	-	✓	unknown
ROM	-	✓	✓ (retroactive establishment)	✓	3
RUS	-	✓	✓	-	0
SGP	-	✓	-	✓	0
SPA	-	✓	✓	-	0
SVN	-	✓	✓	-	34
SWI	-	✓	✓	-	45
TWN	✓	✓	-	✓	0
UK	-	✓	-	✓	4
USA - TAGP	-	✓	-	✓	0
USA - TGMMF	-	✓	-	✓	10

*Negative values indicate that the program took retroactive effect prior to the date of announcement.

Source: Authors' analysis.

As noted in Figure 4, even some AG programs that were newly created did not require legislative approval. The TGMMF in the US made creative (and somewhat controversial) use of an existing fund for stabilizing exchange rates to establish a new guarantee for money market funds (MMFs). And in Hong Kong, although the program was not entirely new, the unlimited guarantee implemented on top of the existing deposit insurance system relied on a similar exchange stabilization fund. Such novel uses of existing authority may allow for the more rapid implementation of programs, but they are not without risk. In response to the

TGMMF, the US Congress prohibited the future use of exchange stabilization funds for such guarantees.⁷ Hong Kong appears not to have faced a similar backlash.

Systemic risk exceptions were another avenue for introducing AG programs without further legislative authorization. Policymakers could engage in activities they were otherwise prohibited from undertaking upon making a determination that such activities were necessary to address a threat to the stability of the financial system. Given the extraordinary nature of such exceptions, often these determinations would be subject to safeguards—for example, requiring the approval of multiple agencies by a supermajority vote of their boards. The US (TAGP), Taiwan, and Indonesia each made use of systemic risk exceptions in establishing AG programs.

In some cases, policymakers moved forward despite unclear legal authority. Malaysian policymakers introduced the GDG in 2008 without an explicit legal basis. In 2010, Malaysia's Parliament passed a law that retroactively provided this explicit legal basis, noting that everything the government had done "in anticipation of the enactment of this Act shall be deemed to have been validly and lawfully done" (Parliament of Malaysia 2010). The law also authorized the finance minister in a future crisis to expand deposit insurance again on a temporary basis without further legislative approval, under consultation with the central bank and the deposit insurance agency.

Guarantees based on a government's announced intention to stand behind its deposits (usually on an unlimited basis) are sometimes referred to as "political guarantees" and present a unique situation from a legal perspective. When such intentions are not transposed into law (as was the case for Germany's unlimited guarantee during the GFC), they may have unclear legal status.

In Europe, member states had to consider not only their own national legal requirements, but also the guidelines and directives of the EU. All member states complied with guidance issued by the EU's Economic and Financial Affairs Council (ECOFIN), calling for the implementation of national deposit insurance coverage levels at a minimum of EUR 50,000, although that guidance was non-binding. All member states likewise complied with the binding directive of the European Parliament and of the Council in March 2009, which established a EUR 50,000 minimum coverage level until December 31, 2010, at which time the minimum would increase to EUR 100,000.

4. Administration: Who was responsible for the day-to-day activities of the AG program?

A key question in designing an AG program is who will administer it. The first decision is whether to create a separate corporation or to give the responsibility to the central bank (as in Hong Kong and Singapore), bank regulator (Australia), or treasury (New Zealand). In our survey, even programs that expanded on existing guarantees sometimes used new approaches to administration. In Belgium, for example, the FDP administered the country's

⁷ Congress temporarily restored the ability to use the ESF for money market fund guarantees during the COVID-19 pandemic.

existing deposit insurance system before the GFC, providing coverage of up to EUR 20,000 (later increased to EUR 50,000). With the onset of the crisis, Belgium created a second government entity called the SPF to administer the guarantee of balances from EUR 50,000 to EUR 100,000. The two entities administered the expanded Belgian guarantee in this two-tiered system notwithstanding the fact that each appears to have operated similarly across key dimensions.

Figure 5 shows the entity responsible for administering each of the AG programs. The approaches included an existing deposit insurer, a newly created deposit insurer, and some other entity such as a central bank. An important consideration is the other financial stability roles of the responsible entity. For example, an AG administrator that is also responsible for bank supervision may have access to information that helps it administer the guarantee. Where an AG program is administered by an entity also responsible for resolution, there may be concerns about adequate funding (Arnaboldi 2014). For example, the IMF criticized Spain for the amount of funding that could be drawn from the FGD for resolutions (IMF-MCMD 2017).

Figure 5: AG Program Administration

Country	Administrator(s)			Administrators' overlapping roles within financial safety net			Ownership of Administrator(s)	
	New deposit insurer	Existing deposit insurer	Other entity*	Lender of last resort	Macroprudential supervisor or regulator	Resolution authority	Private	Public
AUS	✓	-	FR	-	✓	✓	-	✓
AUT	-	✓	-	-	-	✓	✓	-
BEL	✓	✓	-	-	-	-	-	✓
BRZ	-	✓	-	-	✓	-	✓	-
FRA	-	✓	-	-	-	-	✓	-
GRC	-	✓	-	-	-	-	✓	-
HKG	-	✓	CB	✓	✓	✓	-	✓
HUN	-	✓	-	-	-	-	✓	✓
ICE	-	✓	-	-	-	-	✓	-
IDN	-	✓	-	-	-	-	-	✓
KWT	-	-	CB	✓	✓	-	-	✓
LUX	-	✓	-	-	-	-	✓	-
LVA	-	✓	FR	-	✓	✓	-	✓
MYS	-	✓	-	-	-	-	-	-
NZL	✓	-	T	✓	-	-	-	✓
PHL	-	✓	TPC	-	-	-	✓	✓
PRT	-	✓	CB	-	-	-	✓	✓
ROM	-	✓	-	-	-	-	-	✓
RUS	-	✓	-	-	-	-	-	✓
SGP	-	-	CB	✓	✓	✓	-	✓
SPA	-	✓	-	-	-	✓	✓	✓
SVN	-	✓	CB	✓	✓	✓	-	✓
SWI	-	✓	-	-	-	-	✓	-
TWN	-	✓	FR	-	-	-	-	✓
UK	-	✓	-	-	-	-	-	✓
USA - TAGP	-	✓	-	-	✓	✓	-	✓
USA - TGMMF	-	-	T	-	-	-	-	✓

*Key: CB = Central Bank, FR = Financial Regulator, T = Treasury, TPC = Third-party Corporation

Source: Authors' analysis.

Corporations established to run deposit insurance programs were typically government owned. However, 11 of our cases included privately owned corporations. Austria's system, for example, involved five private entities representing different sectors of the banking system (commercial banks, savings banks, two groups of credit cooperatives, and mortgage banks). The IMF criticized this approach, arguing that it lacked transparency and increased the risk of inadequate funding (IMF 2014). An important consideration for privately administered programs is how public oversight will be maintained, which is discussed in Key Design Decision No. 5, Governance.

5. Governance: Who was responsible for the oversight of the AG program? Were there any disclosure requirements?

After determining who will be responsible for the day-to-day activities of an AG program, policymakers must then decide how those activities will be overseen. As many of the

insurance schemes in our survey were separate government agencies or corporations, they had boards providing oversight. Australia's bank regulator, Singapore's central bank, and New Zealand's Treasury oversaw their respective deposit schemes directly, without board oversight. An unusual case was Hong Kong's Deposit Protection Scheme (DPS), which the central bank ran under the oversight of a separate statutory board.

The composition of boards is an important consideration. They typically included government appointees from the finance ministry, central bank, and bank regulator. Many had independent members who had no connection to the government. For example, the UK's Financial Services Compensation Scheme (FSCS), an independent non-profit organization, had eight non-executive members with broad experience in banking, finance, and accounting; and two executive members: the organization's chief executive and director of claims. At least 13 AG program boards also included representatives from the banks themselves, for the purpose of promoting industry input into the oversight. Such arrangements can be controversial, however. In Romania, for example, the IMF pushed for the FGDB to remove credit institution officials from its board (IMF 2010c). The IMF also criticized Switzerland's ESI for its lack of independent board members (IMF-MCMD 2014).

Required disclosures can be another important avenue for effective oversight. Many of the AG programs were mandated to issue regular reports on their activities and submit to periodic audits. The absence of these measures or the failure to make the results public could trigger concerns about a lack of transparency. Austria, for example, faced criticism from the IMF about a lack of publicly available information (IMF 2014).

For those AG programs that were privately owned, mechanisms for ensuring public control were particularly important. In Austria, the country's central financial regulator, the FMA, oversaw the activities of the country's five private deposit insurers. The country's national banking law required these private insurers to provide the FMA and Austria's central bank with annual financial statements (although as noted, the failure to make these statements public resulted in criticism from the IMF). Switzerland's private ESI was subject to oversight by Swiss financial regulators. The law required regulators to approve its articles of association and regulations. Swiss law also explicitly provided that the legislature could further regulate deposit insurance if the ESI's performance was unsatisfactory.

6. Communication: How did policymakers describe the need for and objectives of the AG program? Were there any special communication issues?

Communication is of particular importance for AG programs. More so than for perhaps any other type of crisis intervention, broad public awareness and understanding of AG programs are essential to their success. AG programs cannot instill confidence if depositors do not know they exist. At the same time, because of the stigma that can be associated with crisis interventions, AG administrators need to communicate in a manner that does not erode the very confidence that the programs are intended to safeguard.

As noted in Key Design Decision No. 1, Purpose, the AG programs had a variety of underlying motivations. A key consideration from a communication perspective was how policymakers

described those motivations to the public. Particularly for those AG programs adopted in response to competitive pressures or supranational requirements rather than actual runs or concerns about domestic banks, authorities were typically quick to highlight the continued soundness of their banking systems. Some countries also cited the continued soundness of their banking systems as a reason for *not* adopting AG programs, only to reverse themselves and announce such programs a short time later. Iceland (reversed after one day) and Kuwait (reversed after one week) each followed this pattern, and the abrupt about-faces may have contributed to the program announcements being destabilizing. Iceland's announcement was greeted with large-scale bank withdrawals, while Kuwaiti bank shares fell following its announcement (Jónsson and Sigurgeirsson 2016; Irish Times 2008; Noueihed 2008).⁸

Despite the importance of effective communication, some programs appear to have experienced difficulties on this front. In Switzerland, survey data suggested that only 25% of households knew about the ESI (Brown, Guin, and Morkoetter 2020). UK policymakers conceded that public awareness of the FSCS was low during the GFC, with its independent investigator also criticizing a lack of clarity in communications with depositors about ongoing claims and claims decisions (FSCS 2009). The Financial Stability Board (FSB) noted that lack of public awareness about deposit insurance contributed to the run on Northern Rock, a large UK mortgage bank. Conversely, the FSB praised the communication efforts of Canada, Hong Kong, Indonesia, Japan, Korea, Mexico, Russia, Singapore, the UK, and the US (FSB 2012). The IADI praised Hong Kong for making use of television, newspapers, radio, and the Internet, and for including answers to questions about the program's implementation and effects on specific accounts (IADI 2012; HKMA 2009). For temporary AG programs, problems may arise if communication isn't as good at the end of the program as it was at the beginning. In New Zealand, a 2014 survey found that 75% of respondents believed their deposits were still guaranteed, although the relevant program had expired in 2011 (Adema, Hainz, and Rhode 2019). Interestingly, New Zealand is also an example of the importance of effective communication between countries. After misunderstanding the nature of Australia's AG program, New Zealand extended its own AG program's coverage to include a class of nonbank financial institutions not subject to the same regulatory and supervisory framework as banks. Nine of these nonbank financial institutions failed and required payouts.

7. Size of Guarantee: How much did the AG program guarantee? Did this amount change over time?

A fundamental question in designing an AG program is how much that program will guarantee. The International Association of Deposit Insurers (IADI) recommends that coverage should be limited, credible, and cover the large majority of depositors, while leaving a substantial amount of deposits exposed to market discipline (IADI 2014). However,

⁸ *The problems in Iceland's banking sector were so severe that destabilization was inevitable even without abrupt reversals in policy. Still, the sudden about-face may have contributed to the speed with which that destabilization occurred.*

the IADI noted in its 2016 handbook that increasing guarantees during crises may be “justifiable” (IADI 2016).

As indicated in Figure 6, the AG programs include both programs that guaranteed accounts up to a specific amount and those that guaranteed unlimited amounts. The practical implications of guaranteeing a specific versus unlimited amount can vary depending on the distribution of a jurisdiction’s depositors in terms of account size. If a majority of a system’s deposits are held in smaller accounts, the difference between a specific coverage limit and an unlimited guarantee may be relatively modest from the perspective of the total deposits guaranteed. That said, where a jurisdiction’s depositors have access to additional funds that can be deposited in response to an increase in guarantee coverage, there is evidence that they do so. In Belgium, for example, researchers noted a “bunching” of accounts near the pre-GFC EUR 20,000 limit that then became a bunching near the EUR 100,000 limit once it was increased (Atmaca et al. 2020). Austria’s unlimited guarantee resulted in an increase in deposits in all account brackets above the prior EUR 20,000 limit, with a particularly large surge evident among the largest accounts (Andreasch, Fessler, and Schürz 2012).

Figure 6: AG Program Coverage Limits

Country	Conversion to USD* at time of guarantee		
	Pre-crisis level	Crisis level(s) [†]	Post-crisis/permanent level
AUS	0	unlimited; later 718,184	179,546
AUT	21,295	unlimited	106,474
BEL	21,295	106,474	106,474
BRZ	14,568	4,162,331	52,029
FRA	74,532	106,474	106,474
GRC	21,295	106,474	106,474
HKG	12,743	unlimited	63,715
HUN	14,763	unlimited; later 34,894 to 106,474	106,474
ICE	22,239	unlimited	unlimited
IDN	6,880	137,608	137,608
KWT	0	unlimited	unlimited
LUX	21,295	106,474	106,474
LVA	21,295	53,237; later 106,474	106,474
MYS	13,690	unlimited	57,041
NZL	0	unlimited; later 648,508; then 324,254 for banks and 162,127 for non-banks	0
PHL	4,763	9,526	9,526
PRT	26,618	106,474	106,474
ROM	21,295	53,237; later 106,474	106,474
RUS	6,336	11,088	11,088
SGP	14,550	unlimited	36,374
SPA	21,295	106,474	106,474
SVN	23,424	unlimited	106,474
SWI	31,162	103,875	103,875
TWN	51,365	102,729; later unlimited	102,729
UK	39,585	43,706; later 62,438	106,144
USA - TAGP	-	unlimited	-
USA - TGMMF	-	unlimited	-

**Exchange rates obtained from Bloomberg. †Successive guarantees are separated by semicolons.*

Source: Authors' analysis.

In addition to changes to overall coverage limits, two other features of several AG programs that influenced the amount of deposits guaranteed were the elimination of co-insurance and the elimination of netting. Co-insurance refers to an approach in which a guarantee covers only a specified percentage of deposits under the cap, with depositors responsible for the remainder. Netting involves reducing a deposit insurance payout by the amount of any liabilities owed by the depositor to the failed bank. As will be discussed, both practices were not uncommon prior to the GFC before the crisis showed them to be “inimical to financial stability” (IADI 2013).

The GFC resulted in the virtual elimination of co-insurance globally, with the percentage of deposit insurance programs having this feature dropping from 19% in 2003 to less than 3% in 2013; in 2014, the IADI amended its core principles recommending that deposit insurers drop co-insurance completely (IADI 2014). Co-insurance had historically been a component of many deposit insurance systems, based on the argument that leaving depositors responsible for a portion of any losses will increase their scrutiny of banks and reduce moral hazard. The UK’s pre-GFC FSCS, for example, insured 100% of deposits up to GBP 2,000, but only 90% of amounts between GBP 2,000 and GBP 35,000. This system of partial insurance was insufficient to prevent a run of retail depositors at Northern Rock, and UK policymakers ultimately elected to eliminate co-insurance and provide 100% coverage up to specified limits to reassure depositors (FSA 2007). Hungary, Luxembourg, and Russia likewise eliminated co-insurance provisions as part of their AG programs. EU Directive 2009/14/EC, issued on March 11, 2009, eliminated the ability of member states to adopt co-insurance as part of their deposit insurance programs. As of 2013, only Bahrain, Chile, and Libya still included co-insurance in their deposit insurance programs (Demirgüç-Kunt, Kane, and Laeven 2014).⁹ This outcome is consistent with research suggesting that deposit insurance schemes with co-insurance are less stable, both in normal and financially turbulent times (Chiaromonte et al. 2020).

Netting was likewise a feature included in many pre-GFC deposit insurance systems, including in Belgium, Slovenia, and the UK. Iceland, meanwhile, added a netting requirement as part of its GFC-era Emergency Act. The IADI criticized the UK FSCS’s practice of netting, arguing that it obscured the amounts to which depositors would ultimately be entitled and slowed down processing times. These issues may even have contributed to the run on Northern Rock (IADI 2013). The UK ultimately abandoned netting in July 2009.

Some programs varied coverage limits based on the identity of depositors. Both Austria and Romania distinguished between natural and “legal” (i.e., corporate) persons, offering the former greater coverage (although Romania ultimately increased its coverage of legal persons to the same level as that of natural persons). Such distinctions could also result in exclusion from coverage altogether, as discussed in Key Design Decision No. 10, Eligible Accounts.

The AG programs set limits on deposit insurance based on each depositor’s accounts at any one institution; with accounts at more than one bank, a depositor could get multiples of the

⁹ A review of these countries’ systems indicates that all three continue to rely on co-insurance as of May 2022.

limit insured. Brazil's DPGE was unique among the AG programs in that it also limited the total amount of guaranteed deposits a participating institution could accept based on its capital levels and previous time deposit usage. As discussed in Key Design Decision No. 12, Other Restrictions on Eligible Institutions/Accounts, it enforced these institutional limits by imposing restrictions on any bank that exceeded them.

The specific limits that the AG programs adopted were often the product of competitive pressures from neighboring jurisdictions or supranational requirements. In the EU, the ECOFIN on October 7, 2008, issued non-binding guidance to member states to implement national deposit insurance coverage levels at a minimum of EUR 50,000. Only two EU member states met that requirement before the GFC.¹⁰ As ECOFIN acknowledged, several member states had already determined to increase their limits to EUR 100,000. By the end of 2008, all member states had revised their rules to meet or exceed the EUR 50,000 target. On March 11, 2009, Directive 2009/14/EC of the European Parliament and of the Council established a EUR 50,000 minimum coverage level until December 31, 2010, at which time the minimum would increase to EUR 100,000. As a directive, this measure was binding on member states. Policymakers deemed these levels appropriate because the previously existing EU minimum of EUR 20,000 "proved not to be adequate for a large number of deposits" such that an increase was necessary "to maintain depositor confidence and attain greater stability on the financial markets" (EP/EC 2009). For this reason, all the EU AG programs involved either gradual or immediate increases to EUR 100,000 (or higher).

Both in the EU and elsewhere, the adoption of unlimited guarantees by one jurisdiction could place significant pressure on other jurisdictions with close financial ties to follow suit to avoid a loss of deposits. Germany's announcement of an unlimited guarantee prompted similar unlimited guarantees in Austria and Slovenia. Hong Kong's unlimited guarantee led Singapore and Malaysia to follow suit. Kuwait's unlimited guarantee followed similar measures in the United Arab Emirates and Saudi Arabia.

The specific funding source policymakers sought to protect may also have influenced decisions about guarantee size in some programs. Brazil's DGPE and the US TAGP both targeted wholesale sources of funding and had very high limits (approximately \$9 million in the case of the former and unlimited in the case of the latter).

8. Source(s) and Size of Funding: In the event that payouts needed to be made under an AG program, where did the money come from and how much was available? What would happen if the primary source of funding for an AG program proved to be insufficient to make all required payouts?

A particularly important design decision is the source and size of the funding that will be used to make payouts. Prior to the GFC, some deposit insurance programs were backed by ex-ante funds, accumulated from fees paid by insured institutions, while others were backed only on an ex-post basis. International standards endorsed both types (BCBS/IADI 2009). However, after the GFC, the IADI revised its core principles to recommend that deposit

¹⁰ France (EUR 70,000) and Italy (approximately EUR 100,000).

insurers maintain ex-ante funds, as well as explicit emergency funding arrangements that could include the government, the central bank, or market borrowing (IADI 2014). Only 12 ex-post systems remained in place as of 2013, prior to the IADI's revisions, and several of these systems converted to being ex-ante in the wake of the revisions (Demirgüç-Kunt, Kane, and Laeven 2014).

An initial question for countries with existing ex-ante deposit insurance systems is whether a crisis-era AG program will be incorporated into the standing deposit insurance fund (allowing for some cross-subsidization) or whether it will have its own funding source (protecting the standing deposit insurance fund).

An AG program that depositors see as backed by an insufficient fund will not instill confidence in the safety of deposits.¹¹ This does not mean, however, that AG programs require financial backing equal to the deposits guaranteed. Even when exercised, AG programs will generally have to pay out only a small fraction of covered amounts. Standing ex-ante funds typically target a level based on a percentage of total estimated insured deposits. For example, the US and Taiwan have 2% targets for their deposit insurance funds; the EU in 2014 set a target of 0.8% for member states' funds by 2024 (EP/EC 2014). A well-funded ex-ante fund can make it easier to raise deposit insurance limits during a crisis. But a well-funded ex-ante fund does not ensure a smooth process. For example, the Philippines' DIF had a relatively high 6.1% of insured deposits before the crisis, but it took months for the legislature to agree on the funding for its temporary insurance hike.

Ex-ante funds are also not necessarily designed to handle systemic crises. There is always the possibility that an AG program could have to commit more than it has accumulated in its ex-ante fund to instill confidence during a crisis, as was the case in Latvia. Disbursements may also ultimately exceed the fund's capacity. This is why the IADI now recommends that countries design explicit emergency funding arrangements prior to financial crises.

Where ex-ante funds were insufficient in the GFC and other crises, countries have resorted to a variety of ex-post funding methods. Figure 7 shows the sources of funding for the AG programs. Special assessments levied on participating institutions were a common approach to funding shortfalls. Such an approach had the benefit of continuing to make the institutions themselves responsible for the costs associated with exercising the guarantee. These special assessments are also discussed in more detail in Key Design Decision No. 11, Fees.

¹¹ An actual fund may not be necessary in all circumstances. An AG program with a credit line from a sufficiently creditworthy sovereign may be sufficient for the guarantee to be considered credible. As this is a very context-specific inquiry, any prescription on when an actual fund is necessary versus when a credit line will suffice is beyond the scope of this paper.

Figure 7: Sources of AG Program Funding

Country	Fees	Public borrowing	Private borrowing	Other assets
AUS	✓	✓	-	-
AUT	✓	-	✓	-
BEL	✓	✓	-	✓
BRZ	✓	-	✓	-
FRA	✓	✓	✓	-
GRC	✓	-	✓	✓
HKG	✓	-	-	✓
HUN	✓	✓	✓	✓
ICE	-	✓	-	-
IDN	✓	✓	-	✓
KWT	-	✓	-	-
LUX	✓	-	-	-
LVA	✓	✓	✓	-
MYS	✓	✓	-	-
NZL	✓	✓	-	✓
PHL	✓	✓	✓	✓
PRT	✓	✓	✓	-
ROM	✓	✓	-	✓
RUS	✓	-	-	✓
SGP	-	✓	-	-
SPA	✓	✓	-	-
SVN	✓	✓	-	✓
SWI	-	-	✓	-
TWN	✓	-	-	✓
UK	✓	✓	-	-
USA - TAGP	✓	-	-	✓
USA - TGMMF	✓	-	-	✓

Source: Authors' analysis.

Many AG programs could also borrow in the event of a shortfall, and a key question is whether this borrowing would take place from public or private sources (or from private sources with a public guarantee, as was the case in several programs). The UK's FSCS borrowed money from the Bank of England and HMT and later charged an additional levy on deposit-taking institutions to cover the interest on these loans. Taiwan borrowed from its banks to cover a shortfall and was prohibited from rebuilding its deposit insurance fund until the loans were paid off. Romania required insured institutions to maintain standby lines of credit with the FGDB, a practice criticized by the IMF as being insufficient to ensure adequate funding and ultimately abandoned (IMF 2010a). In Portugal, participating institutions established "irrevocable payment commitments" with the FGD. Programs such as Brazil's DPGE, Luxembourg's AGDL, and Switzerland's ESI apparently contained no mechanism for public funding.

Some programs made use of existing sources of public money not raised from fees paid by covered institutions. As noted in Key Design Decision No. 3, Legal Authority, the US TGMMF and Hong Kong's unlimited guarantee relied on existing exchange stabilization funds rather

than new legislation. These funds became a source of funds for the programs in the event the guarantees were exercised. Singapore simply announced that SGD 150 billion from the reserves of the Singapore government would back its guarantee.

A few countries used two-tier funding mechanisms. For example, in Hong Kong, the standing deposit insurance fund would cover payouts up to the previously insured HKD 100,000 cap, and the HKMA's Exchange Fund would cover any payouts above that cap. In the Philippines, the PDIC used the Deposit Insurance Fund (DIF) to pay out the first PHP 250,000 per depositor; the national government funded any amount in excess of PHP 250,000, and up to PHP 500,000.

Other unique approaches to funding included Austria's sectoral scheme, in which funds for a payout came first from institutions in the same sector of the system as the bank that failed before all banks more broadly had to contribute. The UK's FSCS and Belgium's FDP had similar approaches based on sub-classes of institutions. Greece separated the money generated by its fees into primary and supplementary funds. The former was held at the Bank of Greece and were assets of the HDGF. The latter was retained in time deposits in the name of the HDGF at the participating institutions themselves, with the supplementary funds of a failed institution being used for payouts first before other institutions' supplementary funds were used. In the Philippines, the PDIC received tax breaks in the legislation that enhanced the insurance limit. The tax breaks included a broad exemption from most taxes that resulted in PHP 13.9 billion in revenue over five years, and a permanent exemption from income taxes that later saved the PDIC billions annually (PDIC 2008; PDIC 2009; PDIC 2010; PDIC 2011; PDIC 2012; PDIC 2016; PDIC 2021). The PDIC's deposit fund was recently 7% of insured deposits (PHP 215 billion).

An important consideration is to what extent depositor preference provisions exist in the resolution of failed financial institutions under a jurisdiction's laws. Such provisions typically give depositors a priority claim on the assets of the failed institution ahead of other creditors. This can help ensure that AG programs that make payouts to depositors are ultimately able to recoup those funds through the liquidation of the failed institution. As discussed in more detail in Key Design Decision No. 9, Eligible Institutions, the existence of a priority claim on the bankruptcy estate of failed Icelandic banks due to the adoption of depositor preference provisions by Iceland enabled the UK and the Netherlands to recover (to the detriment of other creditors) amounts owed by Iceland to the British and Dutch governments, who paid their depositors excluded from the protection of the TIF.

9. Eligible Institutions: What types of institutions were eligible to have their deposits guaranteed under the AG program? Was participation mandatory or voluntary?

In determining what institutions will participate in an AG program, policymakers must define eligibility and decide whether participation will be mandatory or voluntary. A typical approach to the former question in our cases was to make all credit institutions licensed in a jurisdiction eligible to participate. One consideration in determining the types of institutions to be eligible for an AG program is whether such institutions are familiar to the guarantee administrator or financial supervisors. **As noted in Key Design Decision No. 6,**

Communication, a misunderstanding of Australia's program contributed to New Zealand's extension of coverage of the CRDGS to certain nonbank financial institutions that, as the country's auditor-general noted, were subject to a different regulatory and supervisory framework from banks (NZ-OAG 2011). The Treasury believed that excluding these nonbanks would prompt their depositors to switch to insured banks. The CRDGS ultimately had to cover nine failures, each one a nonbank financial institution.

Some programs extended protection to nonbank financial institutions other than credit institutions. For example, Belgium's SPF offered voluntary insurance to issuers of a particular type of life insurance contract.¹²

The treatment of cross-border institutions is another key consideration in determining types of eligible institutions. Policymakers must decide how to treat both foreign banks doing business locally via branches and domestic banks doing business abroad via branches. In Europe, EU Directive 94/19/EC established rules for the treatment of cross-border institutions under deposit guarantee schemes. The directive provided that member states should cover branches of their institutions that operate in other member states. If such other member states offer deposit insurance coverage that is more expansive than coverage in the home member state, the host member states must allow foreign branches to voluntarily join programs to supplement the coverage provided by the branches' home countries. In the absence of such requirements, the EU argued that the existence of differing deposit insurance regimes across member states would result in an uneven playing field between institutions authorized in a jurisdiction and branches from other member states (EP/EC 1994).

The coverage of foreign branches became a particularly problematic issue for Iceland's TIF. Iceland limited its full guarantee to "domestic commercial and savings banks and their branches in Iceland" without specifying its approach to deposits held in the foreign branches of Icelandic banks (Icelandic Prime Minister's Office 2008). This focus on domestic depositors reflected the reality that Iceland lacked the economic wherewithal to make good on all guaranteed deposits. The Icelandic government's seeming exclusion of foreign branches of Icelandic banks infuriated the British and Dutch governments and led to a four-year legal battle known as the "Icesave dispute," after one of these banks' deposit products. After covering losses for Icesave's retail depositors, the British and Dutch governments sought reimbursement by filing a lawsuit through the Court of the European Free Trade Association (EFTA Court). The plaintiffs alleged that the Icelandic government's exclusion of foreign deposits was discriminatory by nationality and, therefore, in violation of EU Directive 94/19/EC. Iceland rejected claims of discrimination, arguing that the EU directive did not address instances of large bank failure, and it was not clear that currency-convertible foreign deposits were at an economic disadvantage compared to deposits which could be paid only in Icelandic krona. On January 28, 2013, the EFTA Court ruled that the Icelandic authorities did not have to compensate the Icesave depositors, and British and Dutch governments had priority claim on proceeds from the bankruptcy estate of the failed Icelandic parent company. The assets of the estate (which had to be converted into pounds sterling or euros)

¹² Belgian authorities extended coverage to these life insurance products as part of an agreement to secure insurance company support for the stabilization of Dexia.

were ultimately sufficient to allow for the reimbursement of the British and Dutch, with the last payment being made on January 11, 2016 (Jónsson and Sigurgeirsson 2016).

Figure 8 identifies the various approaches to the “mandatory versus voluntary” question and which approach the AG programs adopted. As indicated, mandatory participation was common. Among voluntary AG programs, there were some that required participants to opt in and others in which potential participants were automatically enrolled with the ability to opt-out. In the US TAGP, policymakers used automatic enrollment with a non-reversible opt-out window to encourage widespread participation. Even institutions without a current need for the program might decide to remain enrolled based on uncertainty about whether they would need it in the future (at which point they would be unable to access it if they had previously opted out).

Before the GFC, the IADI in its core principles recommended compulsory membership for all financial institutions accepting deposits from individual depositors and small-business depositors—that is, those depositors most in need of protection. After the GFC, the IADI recommended compulsory membership for all banks, without qualification (BCBS/IADI 2009; IADI 2014). However, these recommendations have not included advice for policymakers who are enhancing their deposit insurance programs during crises.

Figure 8: Mandatory vs. Voluntary AG Programs

Country	Mandatory	Opt-out	Opt-in
AUS	✓	-	-
AUT	✓	-	-
BEL	✓	-	-
BRZ	-	-	✓
FRA	✓	-	-
GRC	✓	-	-
HKG	✓	-	-
HUN	✓	-	-
ICE	✓	-	-
IDN	✓	-	-
KWT	✓	-	-
LUX	✓	-	-
LVA	✓	-	-
MYS	✓	-	-
NZL	-	-	✓
PHL	✓	-	-
PRT	✓	-	-
ROM	✓	-	-
RUS	✓	-	-
SGP	✓	-	-
SPA	✓	-	-
SVN	✓	-	-
SWI	✓	-	-
TWN	✓	-	-
UK	✓	-	-
USA - TAGP	-	✓	-
USA - TGMMF	-	-	✓

Source: Authors' analysis.

10. Eligible Accounts: What types of accounts were eligible to be guaranteed under the AG program?

In addition to eligible institutions, policymakers must also determine what accounts can participate in AG programs. Figure 9 shows the types of accounts typically covered by AG programs and which types were included in which programs. Most of the programs we reviewed guaranteed bank deposits. Exceptions included the TGMMF in the US, which guaranteed MMF investors, and Belgium's program, which covered investment accounts and a particular type of life insurance product used as savings vehicles by the same depositors who used more traditional products offered by commercial banks. The currencies in which accounts were denominated could also play a role, with a small number of the programs limiting coverage to specified currencies. France, for example, excluded currencies from non-EU member states.

Figure 9: Eligible Account Types

Country Code	Demand deposit	Term deposit	Interbank deposit	Non-deposit or deposit-like instrument
AUS	✓	✓	✓	-
AUT	✓	✓	-	unknown
BEL	✓	✓	-	✓
BRZ	-	✓	-	-
FRA	✓	✓	✓	-
GRC	✓	✓	-	✓
HKG	✓	✓	-	-
HUN	✓	✓	-	-
ICE	✓	✓	-	-
IDN	✓	✓	-	✓
KWT	✓	✓	✓	-
LUX	✓	✓	✓	✓
LVA	✓	✓	✓	-
MYS	✓	✓	-	✓
NZL	✓	✓	-	✓
PHL	✓	✓	-	✓
PRT	✓	✓	-	-
ROM	✓	✓	✓	✓
RUS	✓	✓	✓	-
SGP	✓	-	-	-
SPA	✓	✓	-	-
SVN	✓	✓	-	✓
SWI	✓	✓	✓	-
TWN	✓	✓	-	✓
UK	✓	✓	-	-
USA - TAGP	✓	✓	-	-
USA - TGMMF	-	-	-	✓

Source: Authors' analysis.

The nature of the accountholder could also determine eligibility. For example, EU Directive 94/19/EC, whose rules set boundaries on member state programs, excluded accounts held by financial institutions, government and administrative authorities, collective investment undertakings, pension funds, and large companies. Indonesia's IDIC deemed deposits ineligible for payout if the depositor was considered to have benefited "in an unusual manner" (for example, by taking advantage of interest rates that exceeded IDIC's published rates) or contributed in any way to the bank's failure (for example, was a debtor who held a nonperforming loan) (IDIC 2009).

Several AG programs involved expanding coverage to types of accounts previously excluded from existing deposit insurance systems. During the GFC, Taiwan's CDIC elected to include multiple new account types including negotiable certificates of deposit, government deposits, central bank deposits, and the deposits of various types of banking institutions. As noted in Key Design Decision No. 1, Purpose, Brazil responded to runs at small- and medium-sized banks by developing the DGPE to guarantee time deposits. The DPGE's time deposit

guarantee targeted institutional investors by expanding coverage to BRL 20 million per depositor, compared with the BRL 70 thousand coverage for regular deposits. In the US, the TAGP initially covered only non-interest-bearing accounts before institutional and depositor feedback persuaded policymakers to expand coverage to low-interest accounts as well in order to avoid market distortions. Hong Kong's full deposit guarantee excluded structured deposits, which were derivatives-based financial products that performed like deposits; deposits that were pledged, charged, or secured as collateral; and deposits that were subject to a contractual right of set-off. Malaysia's guarantee covered principal-guaranteed structured deposits, a continuation of pre-crisis coverage.

One interesting design feature of the TGMMF in the US was the use of account eligibility rules to address the risk that an AG program could trigger runs elsewhere in the system. Specifically, US authorities were concerned that an unlimited guarantee on MMFs would cause bank depositors to shift all balances above the deposit insurance limit to the fully guaranteed funds. To avoid this run on the banking system, authorities restricted TGMMF eligibility to balances in place prior to the program's announcement. Given that amounts transferred into MMFs after the program's announcement would not be subject to the guarantee, there was no incentive for bank depositors to shift balances there.

11. Fees: What fees, if any, did institutions have to pay as part of the AG program? Were such fees flat or risk-based? Could special fees be imposed if necessary to fund payouts?

As noted in Key Design Decision No. 8, Source(s) and Size of Funding, most of the AG programs funded themselves at least partially through fees paid by covered financial institutions. Figure 10 shows how each AG program approached the fee question. Fee structures could be flat or risk-based (that is, they could vary based on the health of each institution). Programs could impose fees on an ex-ante basis, to build funds that insurers could use in the event of failure, or ex-post, imposed only after a failure. Some programs shifted their approach to fees over time, with one common pattern being an initial period of flat-rate fees followed by risk-based fees once the practical challenges associated with the latter had been resolved. In Belgium, the shift to risk-based fees came about by court order following litigation by a program participant who challenged the legality of flat fees under Belgian law. While bank-debt guarantee programs often made use of market-based metrics such as credit default swap spreads and credit ratings to determine risk-based fees, AG programs tended to use supervisory ratings (in Hong Kong, for example) or balance-sheet measures, such as capital and liquidity ratios. In Greece, for example, the HGDF and Bank of Greece adopted a three-tier classification system using supervisory evaluation criteria including capital levels, liquidity levels, and governance practices, with fees varying by tier. One country that used a more market-based fee approach was New Zealand, where firms rated lower than BB paid a 300 basis-point fee that was partially waived if they managed to get their rating raised to BB or higher.

Figure 10: AG Program Fees

Country Code	Timing of fees		Risk weights		Institutional weights	
	Ex ante	Ex post	Flat	Risk-based	Size of institution	Type of institution
AUS	-	√*	-	-	-	-
AUT	-	√*	-	-	√	-
BEL	√	√*	√	√	-	√
BRZ	√	√	√	-	√	-
FRA	√	√	-	√	-	-
GRC	√	-	-	√	√	-
HKG	√	-	-	√	-	-
HUN	√	√*	√	-	-	-
ICE	-	-	-	-	-	-
IDN	√	-	-	-	√	-
KWT	-	-	-	-	-	-
LUX	-	√*	-	-	√	-
LVA	√	√*	√	-	-	-
MYS	√	-	-	-	√	√
NZL	√	-	-	√	√	√
PHL	√	-	-	-	√	-
PRT	√	-	-	√	-	-
ROM	√	√*	√	-	-	-
RUS	√	-	√	-	-	-
SGP	-	-	-	-	-	-
SPA	√	-	√	-	-	-
SVN	-	√	-	-	√	-
SWI	-	√*	√	-	√	-
TWN	√	-	√	√	√	√
UK	√	√	√	√	√	√
USA - TAGP	√	-	√	√	-	-
USA - TGMMF	√	-	-	√	-	-

* Indicates the presence of a cap on ex-post fees.

Source: Authors' analysis.

In determining the level of fees to be charged for participation in an AG program, there is a tension between the appropriate fee given the risk to guarantor and the desire to avoid charging banks too much at a time when they are already strained. Responding to this latter concern, Russia lowered the fees associated with its DIA during the GFC. In the newly created TGMMF in the US, policymakers determined fee levels from the “bottom up” by considering the profit margin typical for the industry and selecting a fee rate that was meaningful, but not so high as to discourage widespread participation. This concern about avoiding excessive

burden on institutions under crisis conditions was not a universal pattern, however, and countries including Hungary and Romania raised their fees during the GFC.

The programs also involved other approaches to limiting the burden on banks. Brazil's revised DPGE sought to reduce fees by accepting collateral from participating banks. Before the GFC, some countries also preferred ex-post fees to reduce the burden on participating institutions given that no payments are necessary unless failures actually occur. As noted in Key Design Decision No. 13, Process for Exercising Guarantees, such arrangements can raise concerns about whether sufficient fees can be collected quickly enough to enable prompt payouts. An additional consideration is that in an ex-post scheme, failed institutions never contribute to the payouts (IADI 2012). International authorities criticized ex-post schemes after the GFC. For example, in response to criticism from the IMF and from its own authorities, Luxembourg ultimately replaced its ex-post fee system with an ex-ante approach following the GFC (IMF 2009b; 2010b). As noted in Key Design Decision No. 8, Source(s) and Size of Funding, in 2014 the IADI revised its core principles to recommend that deposit insurers maintain ex-ante funds, as well as explicit emergency funding arrangements that could include the government, the central bank, or market borrowing (IADI 2014).

Similar to ex-post fees are the special assessments that many programs planned to impose in the event that accumulated upfront fees were insufficient to cover required payouts. With any payment made after a bank failure, a concern from the paying institutions' perspective is that they will have contingent liabilities of an unknown amount tied to the activities of other institutions. Charging banks additional fees during a banking crisis is also procyclical—it interferes with the government's objectives of strengthening banks and promoting lending. To address these concerns, ex-post fees and special assessments were often capped. Example approaches to setting these caps include using a multiple of prior years' fees (Greece), using a percentage of shareholder equity (Luxembourg), using a percentage of risk-weighted assets (Austria), and setting a flat overall limit (Switzerland).

12. Other Restrictions on Eligible Institutions or Accounts: Were there other requirements that eligible institutions or account holders had to adhere to while participating in the AG program?

Crisis interventions often require the institutions receiving assistance to agree to certain restrictions as a condition for participation. Typically, these restrictions seek to address moral-hazard concerns or to otherwise make the interventions more politically palatable. Bank-debt guarantee programs, which were frequently combined with AG programs, often had restrictions on balance-sheet growth, dividend payments, and executive compensation (McNamara et al. 2020). Key Design Decision No. 2, Part of a Package, explores this further.

However, these types of restrictions were not a significant feature of the AG programs, perhaps because AG programs were intended to be more broad-based or because many were mandatory. Instead, policymakers often cited heightened supervision as a development that would accompany AG programs to address concerns such as moral hazard.

A few AG programs did not permit insured institutions to mention the protection in their advertising. In Belgium, SPF members who either failed to fulfill obligations to the SPF or transgressed the ban on advertising faced the loss of deposit insurance coverage.

Those AG programs that did have other restrictions typically included design features that those restrictions were intended to address. Brazil's DPGE included a cap on the amount of guaranteed deposits that an institution could accept. To help enforce this cap, Brazilian authorities could impose operational limits on any institution that exceeded it. Given that Switzerland's ESI charged no upfront fees and instead imposed assessments in the event of a bank failure, policymakers required participating institutions to both maintain a certain level of domestic assets and to hold a certain level of liquid assets relative to their maximum assessment level.

13. Process for Exercising Guarantees: What would trigger a payout under the AG program? How quickly would such a payout be made?

Depositors want to know that if their bank fails, they will receive their funds quickly. As Directive 2009/14/EC of the European Parliament and of the Council noted with respect to the lengthy payout process that existed in many EU member states heading into the GFC, “[t]he payout delay of three months currently provided for, which can be extended to nine months, runs counter to the need to maintain depositor confidence and does not meet their needs” (EP/EC 2009).

An important threshold question is what triggers the payout process under an AG program. Limiting the trigger to a bankruptcy filing may be too narrow, because institutions could be in significant distress long before a formal filing is made depending on the jurisdiction. Many of the AG programs allow for an exercise of the guarantee based on other conditions, such as a failure to pay back deposits when requested or a determination by supervisors that an institution would be unable to pay back deposits. Australia's FCS had a particularly rigid process for exercising its guarantee, requiring the approval both of the Australian treasurer and of a court. The IMF criticized this process as creating uncertainty about whether the guarantee would be exercised and increasing the risk of bank runs (IMF 2012).

Figure 11 illustrates how long payouts could take under AG programs once the guarantee has been exercised. Although an exact comparison between programs can be difficult given the trigger issue, Figure 11 provides some indication of how long depositors may have had to wait for their funds. Many AG programs in the EU shortened their payout periods in response to Directive 2009/14/EC's requirement that payouts occur within 20 working days. Several of AG programs also offered prompt payment of small amounts, with the remainder of insured funds payable over a longer period. The Philippines, for example, in 2010 created a waiver system pursuant to which accounts up to PHP 5,000 could be paid out almost immediately, while funds up to the PHP 500,000 limit could take up to six months.

Figure 11: Maximum Payout Periods (Including Extensions)

Country	Maximum payout time	
	Without extension	With extension
AUS	unknown	unknown
AUT	3 months*	unknown*
BEL	20 days*	30 days*
BRZ	unknown	unknown
FRA	2 months*	6 months*
GRC	20 days*	30 days*
HKG	unknown	unknown
HUN	20 days*	30 days*
ICE	unknown	unknown
IDN	up to 90 days	up to 90 days
KWT	unknown	unknown
LUX	3 months*	1 year*
LVA	3 months*	9 months*
MYS	as soon as possible	3 months
NZL	unknown	unknown
PHL	6 months*	6 months*
PRT	7 days*	3 months*
ROM	3 months*	9 months*
RUS	7 to 14 days	unknown
SGP	unknown	unknown
SPA	3 months*	1 year*
SVN	20 days*	30 days*
SWI	3 months	unknown
TWN	unknown	unknown
UK	unknown*	unknown*
USA - TAGP	as soon as possible	unknown
USA - TGMFF	30 days	unknown
<i>*Indicates that the payout timeframe was shortened or altered during the crisis. Timeframe shown is post-alteration.</i>		

Source: Authors' analysis.

Several practical considerations can influence the ability of an AG program to successfully execute timely payouts. As further discussed in Key Design Decision No. 11, Fees, some AG programs funded themselves by imposing ex-post fees after a bank failure had already occurred. One concern with such an approach is that it could delay the availability of funds with which to make depositor payouts.

Another issue is a lack of experience or capacity for exercising guarantees, particularly with programs that were new or otherwise had no history of making payouts. On this front, several of the AG programs adopted approaches intended to address this limitation. Multiple countries used agent banks to help with the payout process (often with IMF encouragement), although the ECB criticized the similar use of agent banks by Latvia based on the concern that such agent banks could be seen as having an implicit government guarantee (ECB 2009). Romania also used payout test exercises to prepare for the possibility of needing to exercise its guarantee.

Design decisions and practical difficulties ended up disrupting payout processes in certain AG programs. New Zealand's CRDGS was a new program introduced in a country without a history of deposit insurance. New Zealand's auditor-general criticized the plan's lack of preparedness for depositor payouts. Ultimately, after several institutions failed, the plan had to pay out all depositors regardless of eligibility because of the administrative difficulties of determining eligibility and concerns about the interest that would accrue as payments were processed (NZ-OAG 2011). In Portugal, meanwhile, lawsuits significantly delayed guarantee payments.

The TGMMF in the US included an interesting design feature intended to ensure that the guarantee was exercised only as a last resort. Historically, MMFs in the United States that suffered losses had received assistance from the financial institutions sponsoring them. Sponsors provided this assistance to avoid the reputational risk associated with losing investors' funds. So as not to discourage continued sponsor support for troubled MMFs, the TGMMF required any fund for which the guarantee was exercised to liquidate. Given that this liquidation would also create reputational consequences for the sponsoring institutions, they remained incentivized to offer support if possible.

14. Duration: How long was the AG program intended to last when announced? Did it ultimately end as originally scheduled?

The AG programs were introduced in response to crisis conditions, raising the question of if, when, and under what conditions the programs would end. Several of the programs were either adopted as permanent changes or with an open-ended duration. In the EU, for example, the GFC prompted a directive requiring member states to increase deposit insurance coverage to a minimum of EUR 100,000, but this increase was intended to be a permanent change. Figure 12 indicates both the originally intended and actual durations of the AG programs. In some cases, deposit insurers ultimately lowered deposit caps that they had temporarily increased during the crisis. Singapore, Malaysia, and Hong Kong coordinated their transition from unlimited guarantees to new deposit limits that were higher than they had before the GFC. In other cases, countries replaced their crisis-era AG programs with permanent programs with ex-ante funding. New Zealand, for example, is developing a standing program that is expected to launch in 2023.

Figure 12: Intended and Actual Durations

Country	Date of announcement	Date of authorization	Date of operation	Planned end date	True end date
AUS	10/12/2008	10/17/2008	11/28/2008	permanent	permanent
AUT	10/8/2008	10/26/2008	10/1/2008	12/31/2009	12/31/2009
BEL	10/10/2008	11/17/2008	10/7/2008	permanent	permanent
BRZ	3/26/2009	3/26/2009	4/1/2009	1/1/2016	permanent
FRA	9/29/2010	9/29/2010	9/29/2010	permanent	permanent
GRC	10/8/2008	11/7/2008	11/8/2008	12/31/2011	permanent
HKG	10/14/2008	10/14/2008	10/14/2008	12/31/2010	12/31/2010
HUN	10/8/2008	10/14/2008	10/15/2008	unknown	unknown
ICE	10/6/2008	10/6/2008	10/6/2008	unknown	9/6/2016
IDN	10/13/2008	10/13/2008	10/13/2008	permanent	permanent
KWT	10/26/2008	11/3/2008	11/3/2008	unknown	unknown
LUX	10/17/2008	12/19/2008	1/1/2009	permanent	permanent
LVA	10/16/2008	10/16/2008	10/18/2008	permanent	permanent
MYS	10/16/2008	10/16/2008	10/16/2008	12/31/2010	12/31/2010
NZL	10/12/2008	10/12/2008	10/12/2008	10/12/2010	12/31/2011
PHL	10/9/2008	4/29/2009	6/1/2009	permanent	permanent
PRT	11/3/2008	11/3/2008	12/12/2008	12/31/2011	permanent
ROM	10/12/2008	10/14/2008	10/15/2008	permanent	permanent
RUS	10/13/2008	10/13/2008	10/13/2008	permanent	permanent
SGP	10/16/2008	10/16/2008	10/16/2008	12/31/2010	12/31/2010
SPA	10/10/2008	10/10/2008	10/10/2008	permanent	permanent
SVN	10/8/2008	11/11/2008	11/20/2008	12/31/2010	12/31/2010
SWI	11/5/2008	12/19/2008	12/20/2008	12/31/2010	permanent
TWN	10/7/2008	10/7/2008	10/7/2008	12/31/2009	12/31/2010
UK	10/3/2008	10/2/2008	10/7/2008	permanent	permanent
USA - TAGP	10/14/2008	10/13/2008	10/14/2008	12/31/2009	12/31/2010
USA - TGMFF	9/19/2008	9/19/2008	9/29/2008	12/29/2008	9/18/2009

Source: Authors' analysis.

The persistence of certain AG programs beyond crisis times has resulted in criticism. Kuwait's unlimited guarantee, adopted in October 2008 in response to the GFC, remained in place as of March 2022. While acknowledging the crisis-time utility of the unlimited guarantee, post-crisis the IMF called for Kuwait to replace it with a capped amount due to moral hazard and reduced market discipline (IMF 2019).

Conclusion

This paper surveys 14 Key Design Decisions for 27 AG programs. A comparison of these programs highlights several important themes to be considered by policymakers in developing any AG program.

Perhaps even more so than other crisis interventions, AG programs have the potential to affect other parts of the financial system and other jurisdictions. The existence of

guarantees can cause a flight of funds from other parts of the financial system and other jurisdictions that lack similar guarantees. The AG programs were generally successful in retaining and attracting deposits. Preliminarily assessing the performance of deposit insurance schemes during the GFC, Demirgüç-Kunt, Kane, and Laeven concluded that such schemes “by and large...fulfilled [their] foremost purpose of preventing open runs on bank deposits” (Demirgüç-Kunt, Kane, and Laeven 2015).¹³ Sometimes a program’s announcement alone appears to have had an impact, as was the case in Taiwan (Basri and Rahardja 2010; Ko 2008). But it is important to understand where the new deposits came from and whether the guarantee in question stabilized one part of the system or one jurisdiction at the expense of another. International cooperation, such as was seen in the EU (although not without tensions) and with the Tripartite Working Group in Hong Kong, Malaysia, and Singapore, can help alleviate these concerns. Design features such as the TGMMF’s “existing balances only” approach to account eligibility would also help ensure that the introduction of an AG program does not precipitate a run somewhere else.

Policymakers can address the moral hazard concerns associated with AG programs through heightened supervision, eliminating a potential obstacle to the adoption of such programs in response to the acute phase of crises. Critics of AG programs continue to raise concerns about the possibility that such programs will encourage greater risk taking by financial institutions freed from the market discipline that they believe non-guaranteed depositors can provide. Analysts of Indonesia’s IDIC found some evidence of a material increase in bank risk-taking following a significant increase in the deposit insurance system’s coverage limit (Saheruddin 2017). Unlimited guarantees face particular criticism from a moral hazard perspective (Anginer and Demirgüç-Kunt 2018). However, moral hazard should not be a primary concern during the acute phase of crises, when institutions are focused on survival and depositor runs are an inefficient and potentially disastrous way of promoting market discipline. As crises shift to the chronic phase, heightened supervision of institutions covered by expanded guarantees is a means for addressing the risk that such institutions will engage in riskier lending as a result.

For an AG program to be effective, depositors must be confident that they will have access to all of their funds in a timely fashion. The credibility of the guarantor and the efficiency of the payout process are crucial factors in determining the success of an AG program. Choices made across multiple Key Design Decisions can influence these outcomes. An AG program’s approach to No. 8, Source(s) and Size of Funding, and No. 11, Fees, may determine whether the guarantee is credible. The revised IADI guidance post-GFC is leading most deposit insurers to build ex-ante funds, eschewing ex-post funding (although as noted, an actual fund may not be necessary in all circumstances, with a credit line from a creditworthy sovereign potentially sufficient for a guarantee to be considered credible). It is also leading insurers to eliminate co-insurance. As a result, it is more likely that depositors will get 100% of their guaranteed balances. Under No. 13, Process for Exercising Guarantees,

¹³ Such success was not universal. In Indonesia, for example, there were continued “flights to quality” as depositors moved their funds to large private banks and state banks of any size despite the existence of a guarantee (Basri and Rahardja 2010).

sufficiently flexible guarantee triggers and condensed payout windows help ensure that depositors don't have to wait too long for access to their funds.

Policymakers should design standing AG programs with an eye toward how they will function in crises. Most countries now have or are establishing standing deposit insurance. It is beyond the scope of this paper to prescribe the coverage levels necessary for such insurance to be effective in non-crisis conditions. What seems clear from the programs, however, is that non-crisis coverage levels may prove to be insufficient during the acute phase of a crisis. This illustrates that countries should have in place mechanisms for easily expanding that insurance during a crisis without the need for new legislation. The IADI has said that the expansion of insurance during a crisis is justifiable, without providing guidance on how to prepare for it. Malaysia, for example, provided GFC-era legislation permanently giving itself the ability to expand its insurance upon consultation among the deposit insurance authority, the central bank, and the minister of finance.

Glossary

AG: Account guarantee

AGDL: *Association Pour la Garantie des Dépôts Luxembourg* (Luxembourg)

BoE: Bank of England (UK)

CDIC: Central Deposit Insurance Corporation (Taiwan)

CRDGS: Crown Retail Deposit Guarantee Scheme (New Zealand)

DIF: Deposit Insurance Fund (Philippines)

DPGE: Time Deposits with Special Guarantee (Brazil)

ECB: European Central Bank

ECOFIN: European Union Council on Economic and Financial Affairs

EFTA Court: Court of the European Free Trade Association

ESI: Swiss Banks' and Securities Dealers' Depositor Protection Association (Switzerland)

EU: European Union

FCS: Financial Claims Scheme (Australia)

FDP: Protection Fund for Deposits and Financial Instruments (Belgium)

FGD: *Fondos de Garantía de Depósitos* (Spain)

FGDB: *Fondul de Garantare a Depozitelor Bancare* (Romania)

FMA: Financial Market Authority (Austria)

FSCS: Financial Services Compensation Scheme (UK)

GFC: Global Financial Crisis

HMT: Her Majesty's Treasury (UK)

IADI: International Association of Deposit Insurers

IMF: International Monetary Fund

MMF: Money market fund

PDIC: Philippine Deposit Insurance Corporation (Philippines)

SPF: Special Protection Fund for Deposits and Life Insurance (Belgium)

TGMMF: Temporary Guarantee Program for Money Market Funds (US)

TLGP: Temporary Liquidity Guarantee Program (US)

TIF: *Tryggingarsjóður innstæðueigenda og fjárfesta* (Iceland)

TAGP: Transaction Account Guarantee Program (US)

WB: World Bank

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