



TECHNICAL

NOTES & MANUALS

The Case for (and Against) Asset Management Companies in Banking Crises

Miguel A. Otero-Fernández, Jaime Ponce, Marc Dobler, and Tomoaki Hayashi

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Miguel A. Otero-Fernández, Jaime Ponce, Marc Dobler, and
Tomoaki Hayashi

This technical note explores the advantages and disadvantages of establishing state-sponsored centralized asset management companies (AMCs) to address high levels of bank asset distress during financial crises. It discusses:

- The benefits, costs, and risks of centralized management of banks' distressed assets through a state-sponsored AMC.
- Key policy considerations in deciding whether an AMC should be established, and the appropriate requirements of such establishment.
- Design, governance, and operational features of effective AMCs that maximize recovery values and minimize moral hazard and costs to taxpayers.

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Abbreviations

AMC	asset management company
DIS	Deposit Insurance System
IFRS	International Financial Reporting Standards
IT	information technology
KAMCO	Korea Asset Management Corporation
NAMA	National Asset Management Agency (Ireland)
NPL	nonperforming loan
RTC	Resolution Trust Corporation (USA)
SAREB	Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria (Spain)
SDIF	Savings Deposit Insurance Fund (Türkiye)
SPV	special purpose vehicle

Preface

This technical note reflects contributions of the Financial Crisis Preparedness and Management Division of the IMF's Monetary and Capital Markets Department. Special acknowledgments for inputs and comments go to Thierry Bayle, Laszlo Butt, Olivier Frécaut, Sergio Grittini, Janne Harjunpää, Edda Rós Karlsdóttir, Suchitra Kumarapathy, Uffe Mikkelsen, Alvaro Piris, Marcos Souto, and Raadhika Vishvesh. The authoring team is grateful to Marina Moretti for providing intellectual direction and clarity, as well as to Charmane Ahmed and the administrative team for excellent support throughout the project.

Executive Summary

Centralized asset management companies (AMCs) have been used in past systemic banking crises and have advantages but also costs and risks (Box 1). Fully or partly state-sponsored AMCs established to manage the impaired assets of weak or failed banks¹ formed a key facet of public support in past banking crises. Such cases include the savings and loans crisis in the United States in the 1980s, the Nordic and Asian crises in the 1990s, and the global financial crisis, for example, in Ireland and Spain.

AMCs seek to reap economies of scale by consolidating creditor claims and scarce expertise to purchase and collectively manage impaired assets from banks. Efficiency gains from using a centralized AMC are most likely to materialize where problems are widespread, individual borrowers have multiple creditors, and nonperforming loans (NPLs) are large, collateralized, and relatively homogenous, which is often the case with portfolios of large corporate and commercial real estate loans. In contrast, relatively small retail loans, where the lender's knowledge of its customers is important to managing the loans and there are no other major creditors, are typically best left with the originating banks. Where asset characteristics are conducive, AMCs may benefit from asset pooling, and their creation may encourage the development of, or recovery in, distressed asset markets by setting benchmark prices and adopting standard procedures for workouts and asset sales. As such, they may help stem asset price spirals and restore market liquidity.

If poorly designed or implemented, AMCs can entail significant moral hazard and fiscal cost. The relative costs and benefits of establishing an AMC need to be carefully weighed on a case-by-case basis. The decision to use a centralized, state-sponsored AMC is often spurred by systemic crises that call for comprehensive bank restructuring, but even in such extraordinary circumstances a careful design will be critical for success and to mitigate the risks of financial loss to taxpayers. Key design issues include the selection of assets, their valuation and transfer price, funding and capital structures, corporate governance and management independence, and operational framework.

Prudent valuation and pricing of assets is essential to minimize risks and fiscal costs. Because NPL valuation can be difficult, particularly in a crisis, transfer pricing is a fundamental challenge in the design of an AMC. If the AMC overpays for the assets, it will provide an opaque "bail-out" mechanism that recapitalizes banks with public funds without burden sharing with bank shareholders and other creditors, thereby generating moral hazard. On the other hand, if the AMC underpays for the assets (for example, based on depressed current market values), it may generate large capital needs that could worsen the crisis. To address this challenge, AMCs should pay a transfer price based on estimates of the real economic value of the assets, defined as the sum of their discounted future cashflows (an income approach to fair value). In a crisis, this price is likely to be in between market and book value, creating both incentives and disincentives for banks to sell. In practice, experience has shown that NPL transfers to AMCs at prudent valuations are more likely to occur in scenarios where banks have been placed into resolution or have received public support (for example, for recapitalization), giving the authorities more leverage (or direct authority) to require banks to divest NPLs at a discount over book value.

Public funding should come from the government, using cash or bonds carrying market terms and tailored to expected cashflows. Market funding is likely to be unavailable or expensive in a crisis for an AMC that entails significant financial, market, and operational risks. Centralized, state-sponsored AMCs are funded (or guaranteed) in whole or in part by the government. If an AMC is paying for assets using bonds (instead of cash), as is often the case, these bonds should carry market rates of return and have similar characteristics to tradable government debt to ensure comparable market liquidity and access to central

¹ The term "bank" is used to refer to deposit-taking financial institutions in general.

bank funding. Bond maturities should be aligned to expected periods of positive cashflow, and the equity position of the AMC should provide sufficient capacity to absorb losses (that is, capital), which is particularly important early in the life of the AMC before revenue streams materialize. Although central banks have guaranteed AMC debt or funded AMCs directly in some cases, temporary state support of impaired loan portfolios is a fiscal, not a monetary, function that central banks should avoid because it can complicate monetary operations and generate losses that could undermine central bank independence or impede monetary policy implementation.

Sound governance, arm's-length oversight, transparency, and accountability are also critical. AMCs need a clear mandate, resources, and independence to realize efficiencies and maximize recoveries. Resistance from banks or authorities to crystallize bank losses and price the transfer of assets realistically could mean that AMCs are unviable from inception. Political considerations, such as protecting particular sectors or borrowers (for example, homeowners), should not interfere with core business decisions and, where pursued, should be channeled through transparent and well-targeted subsidies and programs. Resolution of individual assets can also be subject to lobbying or corruption (for example, when AMCs give borrowers a favorable treatment by avoiding foreclosure, writing off debt, or letting them buy foreclosed assets at low prices). The governance arrangements should ensure independence from political interference and an arm's-length relationship with government. Board members and management should have relevant expertise and independence. Externally audited accounts and regular reporting to parliament, among other practices, ensure that the AMC's management is held accountable for meeting their mandate and minimizing the fiscal cost, net of recoveries.

The operational objective of an AMC should be to maximize the recovery value of the assets it manages within a predefined lifespan. Managing and realizing value from NPLs requires specialist knowledge and hard-headed decisions on how to handle specific assets, expertise that can be in scarce supply. Structural problems, such as the lack of a competitive loan servicing industry or inefficient insolvency and foreclosure frameworks, often lead to value being lost. A focused mandate will contain additional risks and deliver economic benefits by accelerating debt resolution and enhancing economic recovery. To avoid permanent structures driven by misaligned incentives (for example, long-term speculation or job continuity), AMCs should be established with predetermined lifetimes or "sunset" clauses, for example, 5 to 10 years. To mitigate moral hazard risks, the AMC should buy assets for a limited time (for example, the first six months to one year of its existence).

BOX 1. Setting Up State-Sponsored, Centralized Asset Management Companies: Advantages, Costs, and Risks

Potential Advantages

- *Enables nonperforming loan (NPL) resolution strategies* that avoid abrupt asset sales, reduce immediate public losses, and preserve potential upside gains.
- *Allows banks to refocus on core business* and, thus, accelerates private credit recovery.
- *Optimizes debt recovery strategies* by:
 - ◆ Providing economies of scale and cost savings.
 - ◆ Pooling assets into large portfolios that can be better securitized or marketed.
 - ◆ Boosting bargaining power and effective asset management by consolidating loans and breaking links between creditors and debtors.
- *Professionalizes the management of distressed assets* by:
 - ◆ Centralizing scarce expertise, information technology (IT), and human resources.
 - ◆ Jump-starting distressed debt markets and the NPL servicing industry by setting benchmark prices and standard procedures for workouts and asset sales, increasing critical mass on the supply side.
- *Promotes sounder and uniform practices on the valuation of distressed assets*—first, by imposing a realistic transfer price (if well designed) and, second, by ensuring periodic re-valuation.

Costs and Risks

- *High uncertainty around transfer pricing*, which is the key determinant of the long-term success of an asset management company (AMC). The transfer price is typically set amid information asymmetries, financial stability turmoil, and shrinking fiscal space. Authorities can be prone to take risks and overvalue NPLs spurred by optimistic macroeconomic estimates and unrealistic assumptions about the recovery in asset prices.
- *High vulnerability to downside risks*. Given the typically large size of AMCs' balance sheets and their high operating costs and financial leverage, even when transfer pricing has been conservative and management is sound, adverse shocks may result in heavy losses. For example, macroeconomic developments can severely affect debtors' ability to pay, collateral values, and the cost of funding.
- *High set-up costs*. Setting up an AMC is typically complex and fraught with operational challenges (asset migration, IT systems, first valuation of assets, staff recruitment, tax costs). It will take time and entail significant upfront costs.
- *Political interference and reputational risks*. Political influence can undermine management independence, imposing business strategies that hinder the core mandates of timely disposal of assets and maximizing recovery value. The AMC may also be subject to pressures and reputational risks arising from social and political pressures from groups that advocate for debtors' interests.
- *High operational risks*.
 - ◆ In the absence of skilled professionals and an efficient NPL servicing industry, the AMC may fail to protect or improve the value of assets, also eroding credit discipline.
 - ◆ The AMC may have limited knowledge of and access to borrowers or collateral information, which could significantly hamper its business decisions.
 - ◆ Perverse incentives to unduly prolong AMCs' operations and lifespans could arise over time.
- *Moral hazard risks*. AMCs can create or increase moral hazard for bank shareholders and managers, especially if transfers are made on favorable terms and at high prices, and AMCs become (semi-)permanent.

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I. Introduction

Banks' own credit risk management frameworks combined with effective supervision are the first line of defense in dealing with deteriorating bank credit quality. Banks should have sound and prudent lending policies in place, with properly aligned incentives and sufficient internal capabilities to effectively manage and maximize recoveries from nonperforming loans (NPLs). Supervisors should monitor banks' risk management and require banks to make adequate loan loss provisions, as well as develop effective NPL resolution strategies. Managing NPLs in house at each of the affected banks can help mitigate moral hazard. Ideally, it leads banks to (1) adequately train management and employees, (2) put an end to extending loans based on relationship or without the benefit of a robust and bona fide appraisal, and (3) establish a remuneration structure that avoids excessive risk taking.

Centralized asset management companies (AMCs; Box 2) can be used to relieve systemic pressures on banks from carrying excessive NPLs or other distressed assets.¹ Unlike distressed asset managers that invest funds in impaired assets on behalf of clients, these types of financial vehicles are established to facilitate a more efficient management and disposal of NPLs. In a loan portfolio, it is natural that some loans will perform poorly, and managing a modest level of NPLs is an essential function of banks. However, dealing with a high volume of NPLs can pose a significant burden, require specialist expertise, distract bank management from their core tasks (gathering deposits and lending), undermine earnings, and lead to higher funding costs as markets become skeptical of future earnings potential or fear further losses. If NPLs are a widespread problem across the banking system (for example, in a financial crisis), the impediments to new lending could become of macroeconomic significance, consequently slowing the recovery. In such circumstances, it may be appropriate to remove impaired assets from banks by placing them in an AMC that manages them separately, allowing banks to place a cap on their losses and focus on new lending.

State-sponsored AMCs are established by the government or another public entity. Such vehicles are typically fully or partly owned and funded by the government or another public agency.² They are always relevant from a public policy perspective, given their macroeconomic and fiscal implications, and often play a central role in the orderly resolution of systemic banking crises. AMC-type vehicles may also be established by banks as a private business decision to separate NPL management from core banking activities. The key policy concern in these cases is ensuring that consolidated supervision prevents banks from using their AMC subsidiaries to conceal asset quality problems.

Most state-sponsored AMCs manage assets sourced from several banks ("centralized") as part of strategies to confront financial crises that are widespread across asset classes and institutions. They may purchase assets from all banks in the system (for example, Danaharta in Malaysia) or from a target group of banks, such as banks receiving government solvency support (for example, National Asset Management Agency (NAMA) in Ireland and Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria (SAREB) in Spain), or banks under resolution (for example, the Resolution Trust Corporation (RTC) in the United States). Although centralized AMCs can, in principle, be privately funded, most of them have been owned and funded by the state, because the financial risks and funding challenges involved can be unattractive or difficult to manage for private owners during a crisis. "Decentralized" AMCs are rarer and were used, for example, in China in the aftermath of the Asian financial crisis (four bank-specific AMCs)

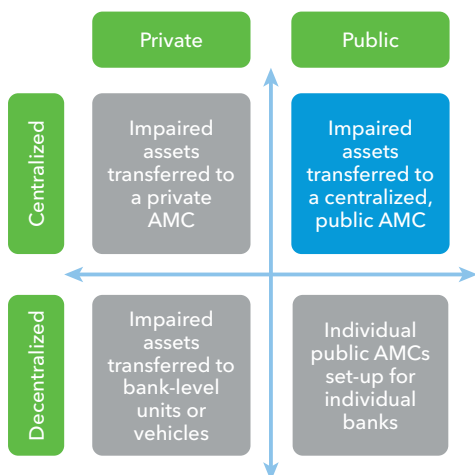
¹ Distressed or impaired assets include (1) assets with high expected losses, (2) assets whose funding costs for banks are sharply higher than their yield, (3) assets that are difficult to value, and (4) assets that are linked to a distressed entity and likely to become impaired. From a legal standpoint, assets may take a broad range of forms, such as loans, shares, securities, contracts, and foreclosed/fixed assets (real estate).

² Normally, an AMC will be established by a decision of the government (for example, the Ministry of Finance) and typically requires ad hoc legislation or regulations.

BOX 2. Taxonomy of Approaches for Managing Nonperforming Loans

As illustrated in Box Figure 2.1 there are different possibilities to address nonperforming loans (NPLs). This will depend on: (1) the public or private involvement and (2) whether the NPLs will be managed in a centralized manner or not.

Box Figure 2.1. Approaches to Manage Nonperforming Loans



Source: IMF staff.

Note: AMC = asset management company.

Bottom left quadrant: NPLs are transferred to a workout unit or special purpose vehicle (SPV) of the bank that originated the loans. These entities need the operational capacity, expertise, and systems for recognizing NPLs, ensuring adequate provisioning and prudent collateral valuation, collecting debt (recoveries or foreclosures), managing foreclosed assets, and writing off NPLs.

Top left quadrant: Instead of individual bank vehicles, several banks could transfer NPLs to be pooled in one privately owned asset management company (AMC) or SPV, which benefits from a collective management and a joint servicing platform. Such cooperative solutions have been rare.

Bottom right quadrant: The authorities set up SPVs on a case-by-case basis to separately manage the assets of individual failed banks.

Top right quadrant: One AMC is set up by the authorities to purchase NPLs from banks and manage them collectively. This approach—a publicly owned, centralized AMC—is the focus of this technical

note and covers both cases where the banks involved continue as going-concern entities under fully private ownership and control, and where they are failing entities subject to resolution and/or public sector support with conditionality attached (for example, to divest NPLs). An example of the latter was the savings and loans crisis in the United States, when an AMC—the Resolution Trust Corporation—was created to assume the assets (including performing) of multiple failed deposit takers placed into liquidation.

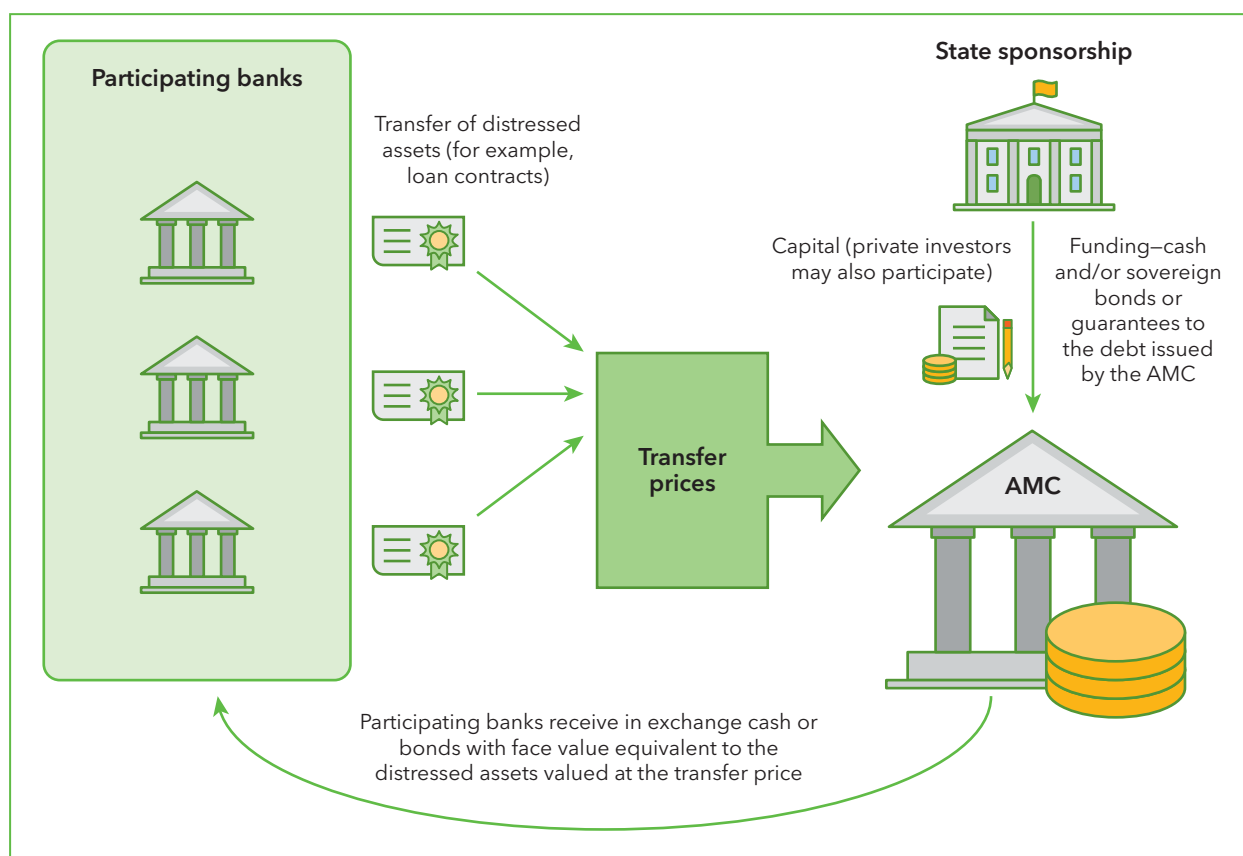
and in other countries during the global financial crisis to separate noncore assets from global systemically important financial institutions (for example, StabFund for UBS in Switzerland, Maiden Lane I, II, and III for Bear Stearns and AIG in the United States). The focus of this technical note is on centralized, state-sponsored AMCs. Figure 1 shows how these entities are established in practice.

The Financial Stability Board’s Key Attributes—the international standard on effective resolution regimes for financial institutions—includes powers to establish and run asset management vehicles.³ It states that a resolution authority should have the power to establish, directly or indirectly, an asset management vehicle, transfer to it selected assets and legal rights, and operate or manage it or provide for its operation or management. The purpose of the vehicle in this case is to manage and wind down assets transferred to

³ Key Attribute 3.2 (viii): “establish a separate asset management vehicle (for example, as a subsidiary of the distressed firm, an entity with a separate charter, or as a trust or asset management company) and transfer to the vehicle for management and run-down nonperforming loans or difficult-to-value assets” (FSB 2014).

it from a bank in resolution, and the powers should therefore be used in conjunction with other resolution powers. For example, a bank recapitalized using the bail-in tool (that is, write-down and/or conversion of bank liabilities into equity) would still suffer from the same asset quality problems that led to its failure and may benefit from an asset management vehicle to help clean up its balance sheet. However, state-sponsored, centralized AMCs, which are the focus of this technical note, are usually deployed to deal with systemic crises and unmanageable levels of NPLs affecting several banks. These scenarios typically require bespoke legislation and regulation rather than standing resolution powers to establish generic AMCs.

Figure 1. Establishment of a Centralized, State-Sponsored Asset Management Company



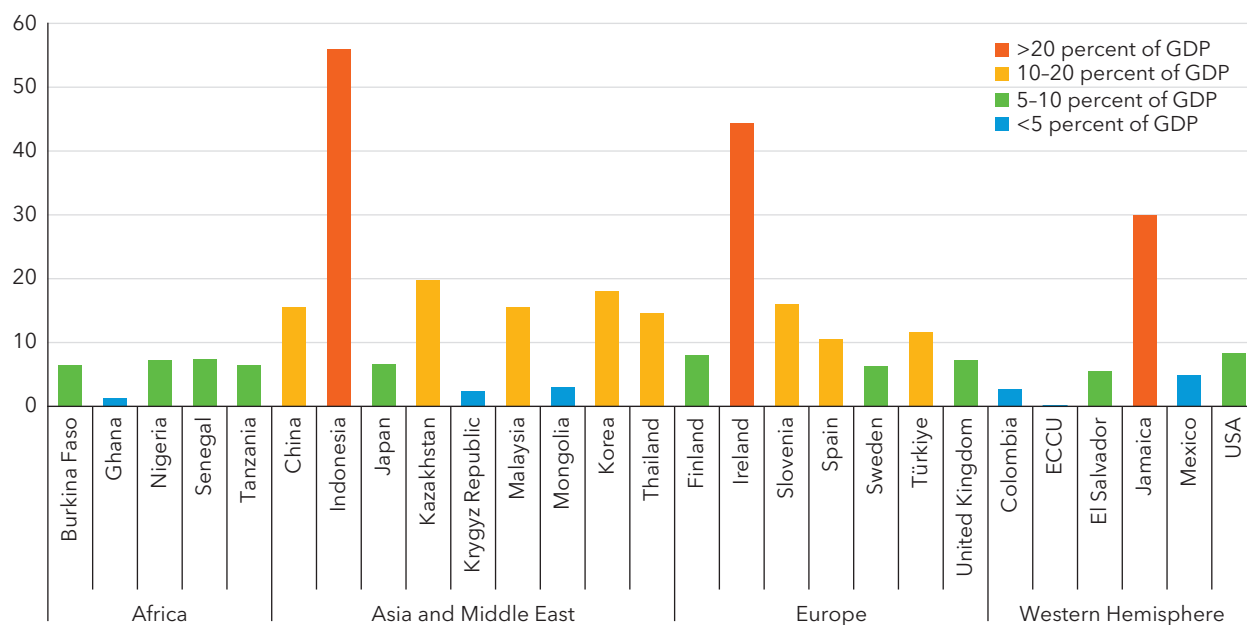
Source: IMF staff.

Note: AMC = asset management company.

II. The Case for (and Against) Asset Management Companies

The decision to create an AMC should be based on a rigorous analysis of banks' NPL portfolios and the market and macroeconomic context, and consider alternative options for dealing with distressed assets. A transparent assessment of the AMC costs, risks, and benefits, and how the public interest would be best served should guide the decision. Experience suggests that such a test is rarely passed, outside of the exceptional circumstances of a systemic financial crisis that leaves a legacy of high NPLs across the banking system (Ingves, Seelig, and He 2004; Dobler, Moretti, and Piris 2020). In most of the state-sponsored AMCs established between 1989 and 2022 for which there is available information,⁴ the banks' book value⁵ of the distressed assets transferred to the AMC represented more than 5 percent of GDP. Among these, half remained below 10 percent of GDP, one-third surpassed this threshold, and nearly a handful reached more than 20 percent of GDP (Figure 2). The following aspects are covered in this section to help guide a decision on whether to establish a centralized AMC: the preconditions needed for setting it up, the scope of eligible assets and institutions, the fiscal costs, timing considerations, and how to limit moral hazard.

Figure 2. Size of Assets Transferred to Asset Management Companies
(Banks' book values in percent of GDP)



Source: IMF staff.

Note: ECCU = Eastern Caribbean Currency Union.

⁴ See Annex 1 for country cases.

⁵ Book value in the balance sheets of participating banks at the moment of the transfer, compared with nominal GDP.

Preconditions

Policymakers should consider a number of preconditions (Cerruti and others 2016) when assessing the suitability and viability of an AMC. Unrealistic assumptions about asset values, the economic outlook and asset price recovery, or costs and risks associated with AMC operations have typically led to ill-designed policy choices, with detrimental consequences for the long-term cost of dealing with financial instability and managing distressed assets.

The risks and costs of a state-sponsored AMC are only warranted when systemic financial stability is at risk. Large loan portfolio distress is typically the result of a substantial deterioration in borrower creditworthiness or collateral prices. This is usually associated with severe macroeconomic shocks, such as the bursting of a credit bubble, but it may also emerge more gradually upon the inaction of bank managers and supervisors. In both cases, the size of the problem and its implications can reach a systemic scale when the volume of losses jeopardizes banks' solvency or lending function, and private strategies to handle problem assets are infeasible or insufficient. Facing this challenge, banks' room for maneuver is usually constrained by limited loss-absorbing and operational capacities. Market-driven alternatives, such as asset disposals or private AMCs, require a broad base of investors and efficient distressed assets markets, which are often missing or insufficient, particularly in the context of macroeconomic or liquidity stress. Ensuring an orderly cleanup of impaired assets then becomes macro-critical, and a well-designed state-sponsored AMC may be one of the options to consider in order to preserve economic value and mitigate second-round effects on credit supply.

The authorities must be committed to the recognition and fair allocation of losses in the face of vested interests. When the creation of a public AMC is driven by vested interests or unrealistic assumptions (for example, about asset values), or when it is directly aimed at deferring losses in the hope of a better economic or political juncture, the long-term cost of the banking crisis is typically compounded. The difficulty of valuing and selling distressed assets during banking crises may warrant the use of an AMC (or similarly targeted tools, such as asset protection schemes; see discussion later in this section). However, this scenario is typically exceptional, and policymakers should not underestimate the risk of misguided incentives to deploy an AMC. The inclination to self-justify past decisions or gamble for redemption may influence bank managers. The preference for preserving capital and avoiding resolution or liquidation will influence bank shareholders. Past failures in banking supervision or concerns over spillovers effects may influence supervisors, and the expected social, fiscal, and political effects will likely influence government decision makers. Overcoming these obstacles and delivering a strategy that preserves financial stability, while minimizing taxpayer risk, will require the strong engagement of the relevant authorities, a robust institutional framework, and effective legal protection for the staff involved.

Without reliable accounting practices or adequate supervision and crisis management frameworks, the authorities cannot build an effective AMC. Bank misreporting of nonperforming assets and collateral overvaluation are not uncommon practices leading up to, and during the onset of, banking crises. When the authorities face transparency or data integrity issues and supervisors are unable to make a realistic diagnosis, an independent asset quality review and a forward-looking assessment can help inform policy decisions and quantify losses. However, neither this one-time assessment nor the deployment of an AMC can replace the need for accurate risk classification of loans, robust auditing practices, and close scrutiny of banks' balance sheets. In addition, a resolution authority, endowed with independence and an adequate set of resolution tools and powers, is essential to broadening the range of options for dealing with failing banks and distressed bank assets, and ensuring adequate allocation of losses to shareholders and creditors.

Insufficient operational capacity to manage large NPL portfolios will hinder the viability of an AMC. Managing large portfolios of distressed assets is a high-risk undertaking that requires qualified staff and extensive investments (for example, IT systems and outsourced services). Specialized firms mitigate risks

by conducting detailed due diligence and negotiating prudent price discounts. However, given the cyclical nature of the business and the high associated legal and market risks, few countries have a well-developed NPL servicing industry. As a result, the originating banks may be the only entities that can realistically manage impaired assets. A public AMC could catalyze the development of a specialized industry over the medium term, but at the time of its creation the authorities may face severe constraints in mobilizing personnel with the right skills and the necessary know-how and operational capacities.

An effective framework for corporate insolvency and debt resolution, as well as reliable borrower information, is critical. When the framework and courts governing bankruptcy and collateral enforcement are deficient, AMCs can become a warehouse of NPLs, losing their operational benefits and likely resulting in a deterioration in the value of the assets. In addition, certain legal requirements, such as the need for debtor consent to transfer loans or high taxation of collateral disposal, might impede large-scale transfers or significantly impair the AMC strategy. Reliable loan databases, clean titles, accurate collateral identification, and borrower information are also important but are often inadequate in the case of troubled banks. Circumventing such operational constraints by endowing AMCs with special powers should be avoided. Such legal privileges would introduce unfair competition advantages and distort markets by treating creditors unequally, whereas reforming the overall framework would leave the country with a more efficient legal system.

Scope of Eligible Institutions

AMCs may be used in different scenarios, depending on the context and circumstances of the participating banks. An AMC can be established to deal with the distressed assets of failing banks placed in a resolution or liquidation, or for banks that are recapitalized with public sector support.⁶ AMCs may also be established to clean up the balance sheet of going-concern banks that remain under private sector management and control. These different scenarios present different challenges for policymakers.⁷ The former scenario could entail the use of the AMC as a resolution tool in conjunction with other tools, such as bail-in, to help resolve the failing banks. In this case, the establishment of a centralized AMC would be considered when the source of the banking problems acquires a systemic dimension that is concentrated in a group of failing banks, thus allowing the authorities to take a targeted approach.⁸ The latter could be considered when going-concern banks have a significant amount of unproductive assets that are hampering their main role of channeling credit to the real economy, but they retain sufficient capital and are not failing. In this scenario, implementation can bring significant challenges, in particular in determining the transfer price. Going-concern banks may be less willing to accept a discount to the book value and may prefer to wait in the hope of a recovery in asset prices. As a result, there is a higher risk in the latter case that (some) banks would not participate in the scheme or that the transfer price would be too high, thus increasing fiscal costs and moral hazard.

Under either scenario, the scope of eligible institutions should be carefully considered. One aspect to consider is whether to include subsidiaries of foreign banks. The decision to determine the scope of the AMC should only follow financial stability considerations, and foreign subsidiaries should fall within it under the same criteria applied to domestically owned banks in order to avoid issues of fair treatment and discrimination. Another aspect to consider is whether to include nonbanks. When deciding this aspect, authorities

⁶ As in the rescue of UBS during the global financial crisis, when, in addition to a capital injection by the Swiss government, a jointly owned special purpose vehicle was created to assume illiquid assets from the bank.

⁷ A hybrid scenario could also arise, combining both sets of institutions. This might be considered when problems spread beyond failing banks or to mitigate stigmatization risks (which might be significant in a systemic crisis).

⁸ In some jurisdictions, the establishment of a state-sponsored AMC can raise a question under competition law from the perspective of ensuring a level playing field and fair market competition. This is the case in the European Union, where an AMC has to be compatible with EU state aid rules. For a detailed analysis, see Aiyar and others (2015).

should consider the systemic importance of these institutions, their asset exposure, and the robustness of their supervisory framework (monitoring and applicable corrective measures).⁹

Scale and Nature of Distressed Assets

Whether an AMC can achieve efficiency gains in NPL management critically depends on the characteristics and the scale of the assets to be managed. An AMC can consolidate claims in the system against the same borrowers, or interest groups, and handle them in a centralized manner with greater bargaining power, thus increasing their recovery value. In this regard, the AMC's potential value-added will be larger if the problematic borrowers have secured loans from multiple participating banks. Moreover, AMCs need to be of sufficient scale to operate efficiently, so the amount of distressed assets in the banking system should be fairly significant to justify that the AMC would achieve greater efficiency gains by managing them on a centralized basis relative to the originating banks. Relatedly, such distressed assets need to lend themselves to being centrally managed (that is, big tickets, such as corporate loans, as well as those backed by real estate collateral, rather than small and unsecured loans).

A centralized AMC can bring together and attract scarce expertise to deal with recoveries. Banks are focused on lending activities and typically lack the expertise needed to deal with recoveries on a large scale. Moreover, this kind of expertise may be scarce, in particular for jurisdictions that do not have markets for distressed assets or where they are very small. Therefore, an AMC would be well suited to attract, build, and centralize the expertise needed to deal with distressed loans and maximize their recovery value. In turn, this will bring efficiency gains that will most likely materialize when the distressed assets are relatively homogenous.

Some types of assets are not suitable for transfer to an AMC. Large, collateralized loans are normally well suited because their recovery values are less dependent on the borrowers' performance.¹⁰ However, loans that mainly depend on the borrower's performance will require a deep knowledge of the borrower in order to maximize their recovery value; therefore, the originating banks may be better suited to deal with them. It is also important that each eligible loan has a minimum critical size to ensure efficiency in the recovery process by the AMC. Last, the benefit of separating the bank's economic exposure to the distressed assets will be more pronounced in those cases where the value of the transferred assets is highly uncertain.

Fiscal Costs

The fiscal costs involved in operating an AMC can be substantial. Gross fiscal costs are typically high and expose the government to significant contingent fiscal risks.¹¹ Net fiscal costs will depend on recoveries and financial returns, versus the price agreed for the transfer of the distressed assets to the AMC (see the section titled "Valuation and Transfer Price"). They will also depend on (1) the opportunity cost of capital for the AMC provided from public sources, to the extent that it is not recovered on a risk-adjusted basis (for example, if the AMC records losses during its operations); (2) the funding required for purchasing loans—which typically involves the issuance of AMC bonds guaranteed by the sovereign resulting in contingent liabilities for the government (that will materialize if the funding is not repaid in full); (3) the interest paid on AMC bonds,

⁹ Nonbank financial institutions have rarely been in the scope of past AMCs. The Korea Asset Management Corporation (KAMCO) is an example where it was possible to acquire NPLs from both banks and nonbanks.

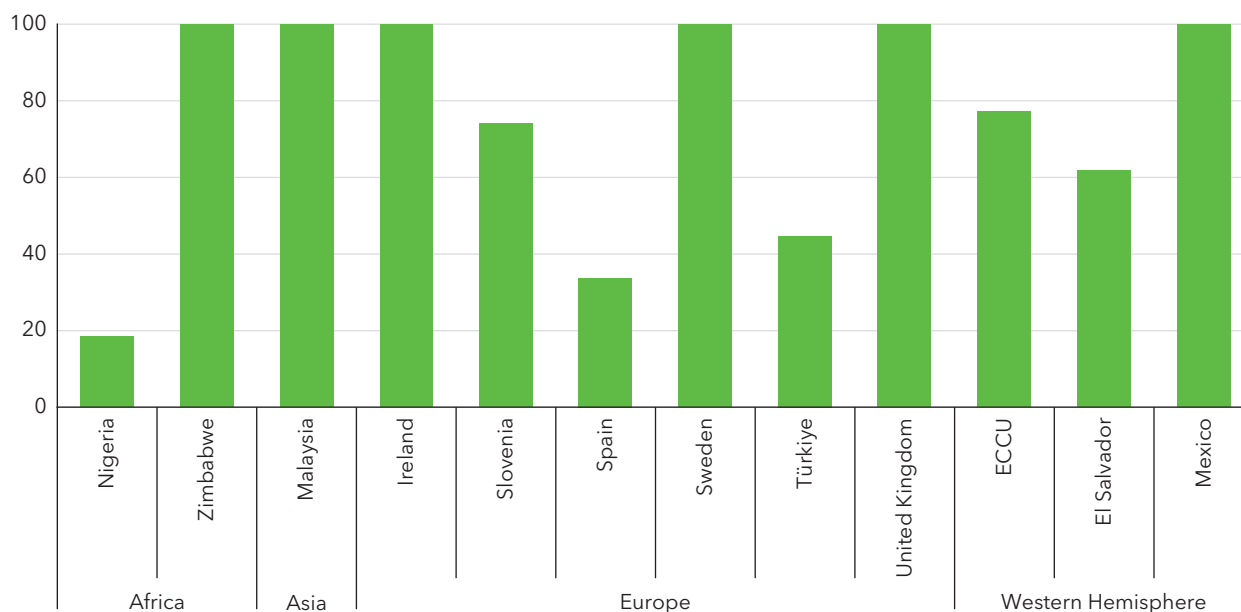
¹⁰ AMCs will likely need to manage unsecured debts (for example, those remaining after foreclosing on collateral). However, purchasing large portfolios of unsecured consumer loans or credit card receivables is not recommended.

¹¹ The classification of AMCs in the fiscal accounts depends on the de facto government control and the underlying viability of the AMC by market standards. In principle, provided the AMC has a credible and profitable business plan, the government's equity stake should be treated as an investment (public financial asset) and the sovereign guarantees as contingent fiscal liabilities. If the AMC would become unviable, it should be reclassified and its accounts, including stocks and flows, should be consolidated with the government.

normally priced at market rates in order to be eligible as central bank collateral (as needed to ensure sufficient liquidity for the participating banks); and (4) the AMC set-up and operating costs including salaries, facilities, insurance costs, taxes, legal fees, etc.

Past experiences with centralized AMCs show that the funding needed to set up and run state-sponsored centralized AMCs has not always been fully repaid. The centralized AMC's capacity to fully repay the funding that it was initially granted is a good proxy of the fiscal costs involved in setting up and running a centralized AMC. Out of all the cases described in Annex 1 for which there is sufficient information, only half were able to fully repay all the funding that they were initially granted (see Figure 3).¹² In other instances,¹³ a portion of the debt initially issued by the AMC was later converted into government debt. These mixed results show that the net fiscal costs of establishing a centralized AMC can vary significantly and, in many cases, only become apparent years after the initial funding was granted. Accordingly, the potential benefits of opting for this crisis management tool need to be assessed over the expected lifetime of the AMC.

Figure 3. Debt Repaid by Asset Management Companies
(Percent of initial funding received)



Source: IMF staff calculations.

Note: ECCU = Eastern Caribbean Currency Union.

A centralized AMC may be most useful in circumstances where a widespread incidence of distressed assets risks a long-term effect on credit intermediation. An AMC may merit consideration in cases where high NPLs would continue to weigh on bank viability, credit growth, and economic recovery, and the cleanup of private sector balance sheets could take years. Although managing moderate volumes of NPLs is part of normal banking business, dealing with very large NPL portfolios is not a core competency of banks or their managers and could weigh heavily on the capacity for further lending, even after banks have adequately provisioned the losses. With respect to distressed borrowers, heavily indebted firms have less incentive to invest (profits will go to repay debt), dampening economic recovery and lowering the value of distressed debt and corporate assets. As such, a centralized AMC may help support a faster economic recovery by cleaning up NPLs from

¹² Several of the AMCs with outstanding debt are still operational.

¹³ For example, this was the case of KAMCO in Korea. See also He (2004).

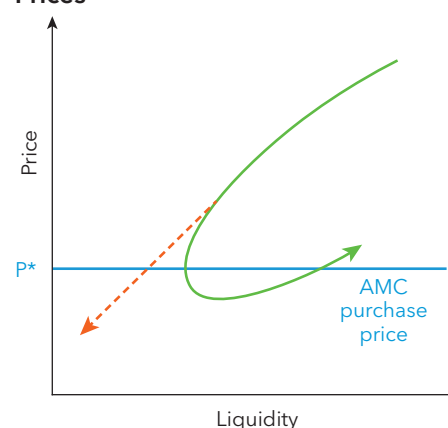
bank balance sheets, stemming asset price spirals, and mitigating second-round effects by allowing banks to focus on originating new lending. Although in theory an AMC can help address a market failure (Box 3), if it is not carefully designed and losses are not adequately identified and first allocated to private shareholders and creditors, it may instead simply entail a transfer of losses and risks from them to the state.

BOX 3. The Market Failure Rationale for Using Centralized Asset Management Companies

The market failure arguments for using asset management companies (AMCs) rest on them helping to stem price spirals and negative feedback loops (Diamond and Rajan 2011). Banks have short-term liabilities (deposits) and longer maturity assets. They may experience liquidity pressures as depositors, fearing that bank losses on risky assets (for example, high loan to value mortgages when a property bubble bursts) may lead to bank failures, may accordingly withdraw deposits. Banks could seek to try to raise liquidity and stem potential further losses by selling the risky assets. However, the pool of buyers for such assets and the liquidity they will deploy declines significantly at a time of rising financial stress and risk aversion. This in turn can lead to further declines in asset prices (as shown by the declining orange dotted line in Box Figure 3.1) to “fire sale” levels (that is, significantly below balance sheet value and potentially also below real economic value—the [discounted] future cashflows they would generate).

An AMC purchases nonperforming loans (NPLs) to remove uncertainty around bank exposures to impaired assets—including their valuation and the potential size of losses—and mitigate the risk of second-round effects. In particular, it mitigates the risk that banks facing losses respond by contracting lending, exacerbating the economic shock. This will in turn place further downward pressure on the asset prices and deepen the economic shock. By purchasing the impaired assets at price P^* , the AMC provides a floor on their valuation. This may help trigger a recovery in market liquidity for impaired assets and stem the downward spiral leading to a recovery in pricing (the green upward curved line in Box Figure 3.1). As such, any market inefficiency is addressed by public intervention; furthermore, if the impaired assets are purchased at a price equivalent to their real economic value, the AMC will not lose money and could capture any “upside” (for example, if the economic recovery is robust). This looks like a “win-win” policy response. However, pricing uncertainties are usually extreme, and if P^* is significantly below the book value at which the assets are recorded by banks—which will typically be the case after an asset price bubble and/or lending boom—banks will be unwilling to sell at P^* , because this could trigger their insolvency. In the absence of strict supervisory practices, they would rather “gamble for redemption” and hold on to the assets, hoping for higher returns at a later date. As a result, the case for a state-sponsored AMC is often associated with insolvent entities, where the authorities can impose the transfer of assets at price P^* . When, instead, the AMC purchases NPLs at higher prices, it transfers significant losses to the state’s balance sheet and incurs moral hazard by bailing out the shareholders and creditors of failed banks. In a worst-case scenario, where mispricing and the volume of the impaired assets transferred to the AMC is high (for example, in cases where the banking system is large compared with the size of the economy), the sovereign’s debt sustainability could be jeopardized.

Box Figure 3.1. AMC’s Potential to Establish a Floor on Falling Asset Prices



Source: IMF staff.

Note: AMC = asset management company.

When assessing whether to use an AMC or other tools to address large levels of NPLs, authorities should aim to minimize fiscal costs and risks. Incentivizing privately owned, going-concern banks to sell distressed assets at a fair transfer price may prove challenging because it will likely crystallize significant losses. With that in mind, the authorities should find the best approach that can quickly protect financial system stability and tackle the distressed assets with public money used only as a last resort. Other resolution tools could be considered as an alternative to, or be used together with, the establishment of AMCs when dealing with one or more nonviable banks to minimize the cost and the risks for taxpayers.¹⁴ These include (1) the bail-in of eligible creditors that will absorb losses together with shareholders, (2) the partial transfer of performing assets and protected liabilities to other healthy banks, and (3) the establishment of a temporary bridge bank, which would allow more time to restructure the balance sheet before effecting a sale. When the state provides public resources to recapitalize participating banks, its leverage on the transfer price may increase. This has often been the context in which AMCs have been deployed historically¹⁵; however, the state also incurs the extra costs and risks of bank ownership in such circumstances.

Alternatives to Public Asset Management Companies

State-supported securitization schemes and assets guarantees are alternative strategies¹⁶ with their own challenges. State-supported securitizations were used in the global financial crisis and subsequently in Italy¹⁷ (*Garanzie sulla Cartolarizzazione delle Sofferenze, GACS; 2016–22*) and Greece¹⁸ (*Hercules I, II, and III, 2019–24*). Under such schemes, each participating bank transfers distressed assets to a special purpose vehicle (SPV) that issues securitization bonds in different tranches using the transferred assets as collateral. In parallel, the SPV appoints credit servicers to work out the acquired portfolios. The aim of the sovereign guarantee is to increase the credit quality of the securitization bonds to improve their marketability to potential investors or eligibility as collateral.¹⁹ The degree to which such schemes transfer risk to new investors is an important challenge. If the securities end up back on the balance sheets of the participating banks (and, for example, are used as collateral to access central bank liquidity where possible), no real transfer of risk to the private sector occurs from the securitization. Government guarantees on assets that remain on a bank's balance sheet are an alternative that were used extensively during the global financial crisis.²⁰ In this case, the government-sponsored scheme provides a floor on the losses the bank could suffer, reducing uncertainty about the bank's solvency by removing downside risks, which can help stabilize market funding. They provide relief only during the term of the guarantee, but, if called, they permanently remove downside risk from the bank's balance sheet. Asset guarantees offer some advantages and disadvantages in comparison to establishing an AMC (Table 1). These include the following: (1) the absence of set-up and operational costs that would be entailed by an AMC, (2) the timing for operationalizing the scheme could

¹⁴ When using AMCs as a resolution tool, some jurisdictions have introduced specific safeguards. For example, in the European Union, the Bank Recovery and Resolution Directive requires the asset separation tool to be applied together with another resolution tool (cfr. Article 37(5) of Directive 2014/59/EU).

¹⁵ Brei and others (2020) find that asset segregation and recapitalization are only effective when used together.

¹⁶ See also section 3 of Baudino and Yun (2017).

¹⁷ See also IMF (2020b).

¹⁸ See also IMF (2019), IMF (2020a), and IMF (2022).

¹⁹ In the cases of Greece and Italy, the state guarantee was only offered on the senior tranches to avoid triggering conditionality of the EU State Aid framework, yet it indirectly improved marketability and pricing for the more subordinated tranches. See Annex 1 of the European Commission's "AMC Blueprint" (2018) and IMF (2022). Guarantees are usually subject to a fee and may be partial (for example, a first loss tranche may be retained by the bank). Banks retain ownership of the guaranteed assets, leaving the upside (if recovery values are high) with the bank.

²⁰ Examples include the Asset Protection Scheme in the United Kingdom and the Asset Guarantee Program for Citigroup and Bank of America in the United States. More recently, an asset guarantee was provided by the Swiss government to support the merger of Credit Suisse with UBS.

Table 1. Comparing Asset Guarantees and Asset Management Companies

	Advantages	Disadvantages
Asset Guarantee	<ul style="list-style-type: none"> • Can be deployed quickly, for example, in response to “sudden stops” in market funding • Quick/easy to exit • Contingent liability, no immediate effect on government debt 	<ul style="list-style-type: none"> • Temporary only; does not permanently clean up bank’s balance sheet (if guarantee not called) • Upside value retained by shareholders/creditors of the distressed bank
Public AMC	<ul style="list-style-type: none"> • Permanent removal of risk from balance sheet • Upside value secured by the AMC/government • Potential efficiencies in loan workout, for example, if pooling homogenous nonperforming loans from different banks • Improves bank liquidity if payment for transferred assets is in cash or government bonds eligible for central bank funding 	<ul style="list-style-type: none"> • Upfront cost and time required to establish and operationalize AMC • Immediate effect on government debt (unless structured to avoid consolidation) • Time to exit—winding up an AMC may take many years (depending on the assets)

Source: Dobler, Moretti, and Piris (2020).

Note: AMC = asset management company.

be faster, and (3) public funds are not directly deployed until (and if) the sovereign guarantee is called. On the other hand, policymakers should bear in mind that the guarantee can be called at any time and crystallize sovereign losses. The assets are also not permanently removed from the participating banks’ balance sheets, because the guarantees are time limited. Furthermore, any upside/recovery in impaired asset prices is retained by shareholders and creditors of the distressed bank, despite the risks that are borne by the government.

Timing Considerations

AMCs are best deployed after containment efforts in a systemic crisis. Although transferring assets to an AMC during the initial phase of a financial crisis could, in principle, enable a swifter cleanup of distressed assets from banks’ balance sheets, it could also significantly increase risks and costs for the state. Negotiating transfer prices for NPLs when creditors and investors are in full flight, and when there is high uncertainty over the depth of the economic shock, is exceptionally difficult. Any possibility of sharing risks with private sector investors through funding or capital investments will also be diminished, and the transfer of distressed assets to an AMC will (and should) not, by itself, restore solvency and viability to weak banks. Numerous steps need to be taken to establish a fully operational AMC, all of which take time. They include the approval of the legal framework that would govern its operations, ensuring adequate funding and capital, carrying out a prudent valuation of NPLs, hiring staff with the appropriate skills, and other necessary arrangements to make an AMC operational. If there is a need to establish an AMC to address a large overhang of NPLs in the system, this could be done after crisis containment measures have been taken and in conjunction with other bank resolution and restructuring tools. This, in turn, could help rebuild investor appetite and contribute to the economic recovery.

Limiting Moral Hazard

The possibility of being able to transfer NPLs to an external agency can generate moral hazard and weaken risk management by banks. The responsibility for managing loans, performing or nonperforming, lies first

and foremost with the banks originating them. All banks should have robust risk management practices to minimize the risk of underwriting loans that may result in loss. On the other hand, if banks assume that they will not have to bear the full costs of managing NPLs, they may take less care in credit risk assessment, loan underwriting (and management), and timely provisioning. This issue is particularly important for AMCs created to purchase distressed assets from going-concern banks.

Public ownership of an AMC can also weaken borrowers' incentives to repay. This aspect is particularly relevant when AMCs are created to deal with distressed assets from failing banks. A bank's knowledge of its customer base can be lost upon transfer to the AMC, creating opportunities for "strategic" defaulters. Credit culture and payment discipline may also deteriorate or be tested when the negative social consequences of collateral enforcement are seen as politically unaffordable for a public agency. This issue is especially pronounced, and politically sensitive, when enforcement actions involve retail borrowers (mortgages or residential real estate acquired or repossessed by the AMC) or loans to small and medium enterprises, especially when they play an important role in the economy. Last, to minimize the risk of political interference and corruption, it is essential to ensure that loans from politically connected persons are transferred, and treated thereafter, under the same conditions as the rest of the loans.

AMC's asset purchase windows should be limited in time. The opportunity to sell the assets to the AMC on an open-ended basis increases moral hazard. To reduce the risk that banks weaken lending and risk management practices in response to the possibility of selling assets to the AMC, the AMC should be able to buy assets for a limited time only—the first six months of its existence, for example. Moreover, once the scope and price of assets is defined, the transfer should be promptly executed and the authorities should seek to prevent opportunistic cherry-picking practices, such as rapid selling of high-market-value assets or asset reclassifications to manipulate the transfer perimeter.

Some AMCs have allowed (or required) banks to repurchase NPLs within a set period. Such call (or put) options rarely allow for a "clean break" for accounting and supervisory purposes—fully removing credit and valuation risks from banks—and, thus, may not fully clarify the banks' capital position or help restore investor confidence. Moreover, the ability of an AMC to put back the assets after the stated period can reduce its incentives to resolve NPLs and make hard decisions on borrower viability and true asset values.²¹ More generally, operational issues, errors, and disputes²² between AMCs and banks will likely arise during and after the transfer. Transfer contracts should establish mechanisms and rules to handle disputes. The authorities may play a role by mediating or setting criteria to clarify the terms of the transfer. In the absence of agreement between the parties, disputes should preferably be resolved through out-of-court or arbitration processes, which usually provide a faster resolution than ordinary courts.

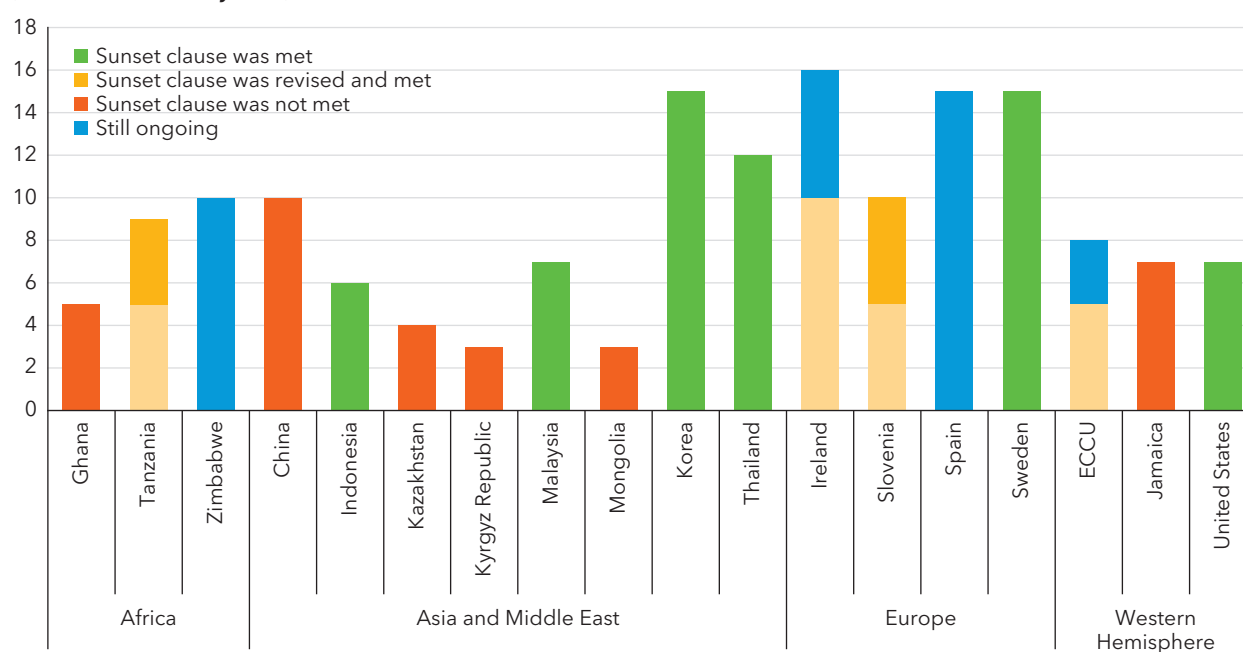
AMCs should also have a sunset clause. Without a predefined, limited lifespan, an AMC may have incentives not to resolve the transferred assets in order to justify its continued existence. "Asset management operations are in the business of going out of business" (Ingves, Seelig, and He 2004), and experience with AMCs shows the typical lifespan can be between 5 to 15 years, with the duration being subject to market conditions in some cases. Sunset clauses need to be handled carefully to maximize recovery value and avoid fire sales, while limiting moral hazard and avoiding an open-ended existence. Setting a realistic timeline for winding down the AMC is critical and, when doing so, the kind of assets managed by the AMC needs to be taken into consideration. For example, if the AMC controls a significant market share in certain asset classes, such as commercial real estate, more time may be required to restructure and dispose of the assets while

²¹ At KAMCO in Korea, a put-back option against the selling institutions was introduced to protect the AMC against a substantial drop in the market price of the distressed assets after being transferred to the AMC. See Baudino and Yun (2017) and Fung and others (2004).

²² Disputes are typically related to price (for example, misclassified assets whose transfer price should be different, liabilities affecting the price, etc.) or scope (for example, transfer of assets that are outside the scope, or material and legal defects that prevent the acquisition by the AMC).

avoiding fire sales. It is better to establish a realistic timeline from inception. This will provide proper incentives to the management of the AMC while also seeking to ensure that assets are disposed of on a timely basis (rather than “warehoused”). Among the sample of AMCs covered in Annex 1, nearly two-thirds²³ had a sunset clause, but only a handful were able to meet it. Several others did not meet the clause or had to extend it (Figure 4).²⁴ In total, more than 40 percent of the AMCs were still in operation at the end of 2022, suggesting that the speed of recoveries may have been overestimated in many cases.

Figure 4. Asset Management Companies with Predefined Lifespans
(Sunset clause in years)



Source: IMF staff.

Note: ECCU = Eastern Caribbean Currency Union.

²³ Hungary (Magyar Reorganizációs és Követeléskezelő) had a sunset clause of 10 years, but it is not included in the chart, because it was privatized before it acquired any assets.

²⁴ See Annex 1 for country cases.

III. Design

Mandate

The mandate should be clearly defined by law and focus on prudent valuation and maximizing asset recovery values within the AMC time horizon. The AMC's management should have a clear operational mandate to maximize the recovery values of the assets it purchases.²⁵ This mandate should be coupled with regular disposal targets based on a business plan that considers the life of the AMC. This should aim to ensure that the timely disposal of assets by the AMC is not hampered by unrealistic expectations of potentially higher returns. The mandate should be established through the founding law and charter of the AMC. Framing a clear value maximization objective serves several purposes:

- Reduces the possibility of additional losses, and thereby helps minimize fiscal risk;
- Incentivizes restructuring and debt workouts, so that borrowers can make a fresh start and restart economic activity;
- Frees assets held as collateral against NPLs for new purposes;
- Establishes clear criteria on which the success of the AMC, its management, and staff can be judged, enhancing transparency and accountability;
- Insulates the AMC from political pressures and vested interest groups;
- Provides a commercial focus that can attract staff with the right skills, with market-based incentive packages; and
- Helps establish the AMC as a credible market player in negotiations with borrowers and potential acquirers of its assets.

Unclear or competing objectives will reduce the AMC's effectiveness. Some AMCs take on a variety of public policy objectives and bank restructuring and resolution-related roles, that extend beyond the direct management, restructuring, and disposal of distressed assets and debt workouts. These wider mandates may include the resolution of insolvent and nonviable banks; the restructuring of failed banks, including solvency support; and the privatization of government-owned and government-intervened banks.²⁶ AMCs with wider mandates may risk operating longer than anticipated, and some have incurred substantial losses resulting from their other activities. Furthermore, to the extent that an AMC has unclear or even competing policy objectives (for example, housing policies), pressures from political or influential parties will be harder to resist because the AMC cannot appeal to a commercially focused mandate.

A commercially oriented mandate requires corresponding governance arrangements that ensure independent, commercially focused operations and decision making.²⁷ Even if the mandate of maximizing recovery is clearly provided by the founding law, it cannot be properly achieved without effective governance and compensation structures. In this regard, board members and management should have relevant expertise and be sufficiently independent from government, financial sector, and borrower interests. Compensation and legal arrangements should be aligned with the commercial purpose of the vehicle, rather than its public ownership.

Granting special powers only to AMCs to accelerate recoveries should be avoided. AMCs have on occasion been granted fast-track legal and administrative powers. The use of special powers has often occurred in countries where legal frameworks were inadequate and there was insufficient time or political

²⁵ For example, in Ireland, the NAMA Act states that it shall obtain the best achievable financial return for the state.

²⁶ See Annex 1 for country cases.

²⁷ See section on "Governance and Operations" for more details.

support to implement broad reforms. In the sample of AMCs covered in Annex 1, more than 40 percent (13 out of 30) were provided with special powers to fulfil their mandate.²⁸ These powers ranged from desirable features that were lacking for all market participants in a given jurisdiction at the moment of the creation of the AMC (for example, the right to transfer assets without borrowers' permission, access to credit information, or the introduction of out-of-court solutions) to features that do not seem proportionate (for example, special administrative processes to seize debtors' assets or the establishment of a special court only for the AMC). Granting special powers to an AMC introduces an element of unfair competition (particularly if the AMC has some private equity), resulting in market distortion where debtors are treated in an unfair or unequal manner. It is preferable, therefore, to reform the overall legal framework to introduce a more efficient insolvency and foreclosure regime for all market participants, and not just the AMC, including out-of-court proceedings, specialized courts, and insolvency practitioners (Dobler, Moretti, and Piris 2020). Reforming the overall framework would leave the country with a more efficient legal system which, in turn, can boost the expected recoveries from an AMC, as well as for other creditors.²⁹

Transferred Assets

The types of assets eligible for transfer to the AMC should be clearly set in legislation. Clear guidance on what types of assets can be transferred to the AMC should be established in the law creating the AMC. A key issue to clarify in legislation will also be whether to impose an obligation to transfer distressed assets. In the sample of AMCs in Annex 1, a mandatory transfer of assets was established in many instances, often targeted to a set of ailing banks (for example, failing banks or banks recapitalized by the state). For privately owned, going-concern banks, this is less frequent, and it has normally been achieved indirectly through regulatory incentives such as setting medium-term NPL reduction targets (the approach used in the European Union during the global financial crisis). Last, the legal framework should allow for full transfer of assets ownership and clearly define the transfer mechanism. This should reduce operational disruptions and avoid gridlocks in moving the problem assets out of banks' balance sheets.

Banks should transfer entire portfolios of problem assets within each typology to the extent possible. Transferring entire, or near-entire, portfolios, for example, of real estate-related corporate loans, brings several advantages. It would enable a more comprehensive solution to the banks' problems, since they would be transferring the entire portfolios that are considered problematic. It would also allow the AMC to better exploit economies of scale. Lastly, it would protect the AMC from "cherry-picking," whereby banks would only transfer their worst problem assets and retain those with higher recovery potential. However, the potential costs to the AMC, as well as the specific circumstances, for example, of the selling banks, should be considered.

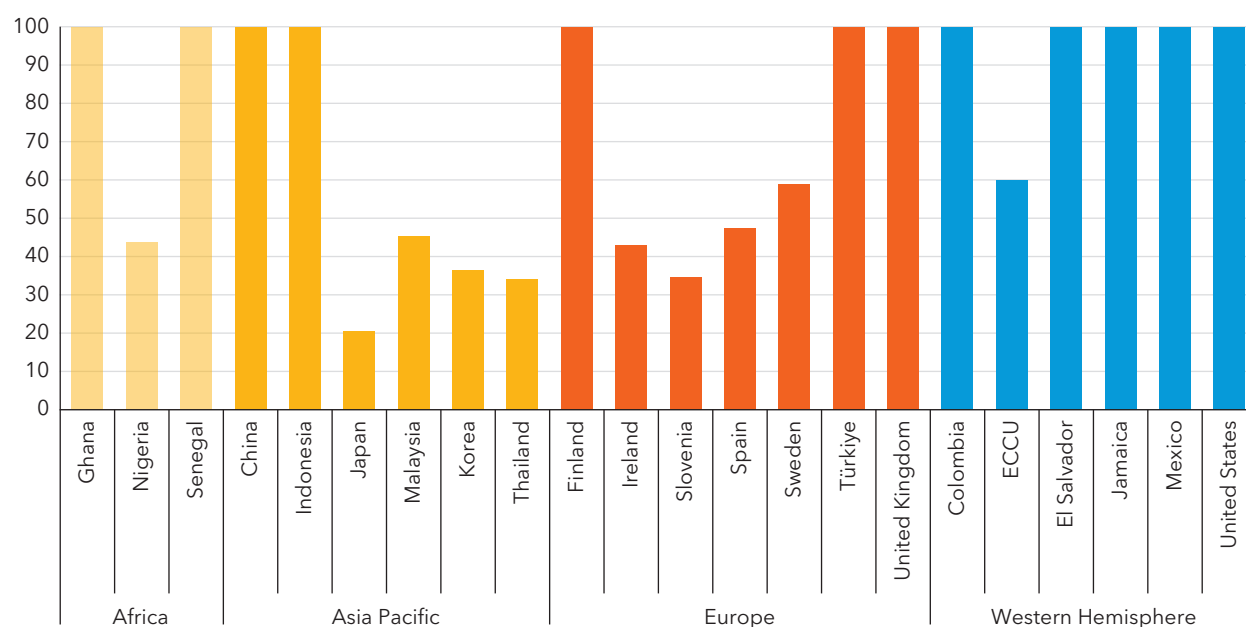
Valuation and Transfer Price

Establishing prudent valuations based on market principles typically poses significant challenges for an AMC. Differences between three valuations are critical: first, the book value (that is, the net accounting valuation of the NPLs) will define the effect on the banks' balance sheets of any asset transfer and, therefore, the willingness of bank managers and shareholders to recognize losses; second, the market value, which can be strongly influenced by cyclical or structural factors; and third, the economic value, which seeks to estimate the cash flows that the assets would generate over a longer and less procyclical timeframe. Ideally, the transferred assets should be valued at market value. However, markets for distressed assets are often thin or

²⁸ Nonetheless, recent experiences show much less reliance on special powers than previously. Of all the AMCs created since 2010, only one AMC was given special powers.

²⁹ Brei and others (2020) concludes that credit recovery and NPLs reductions derived from impaired asset segregations are stronger in countries with more efficient legal systems.

Figure 5. Average Transfer Price
(Percent of banks' book values)



Source: IMF staff.

Note: ECCU = Eastern Caribbean Currency Union.

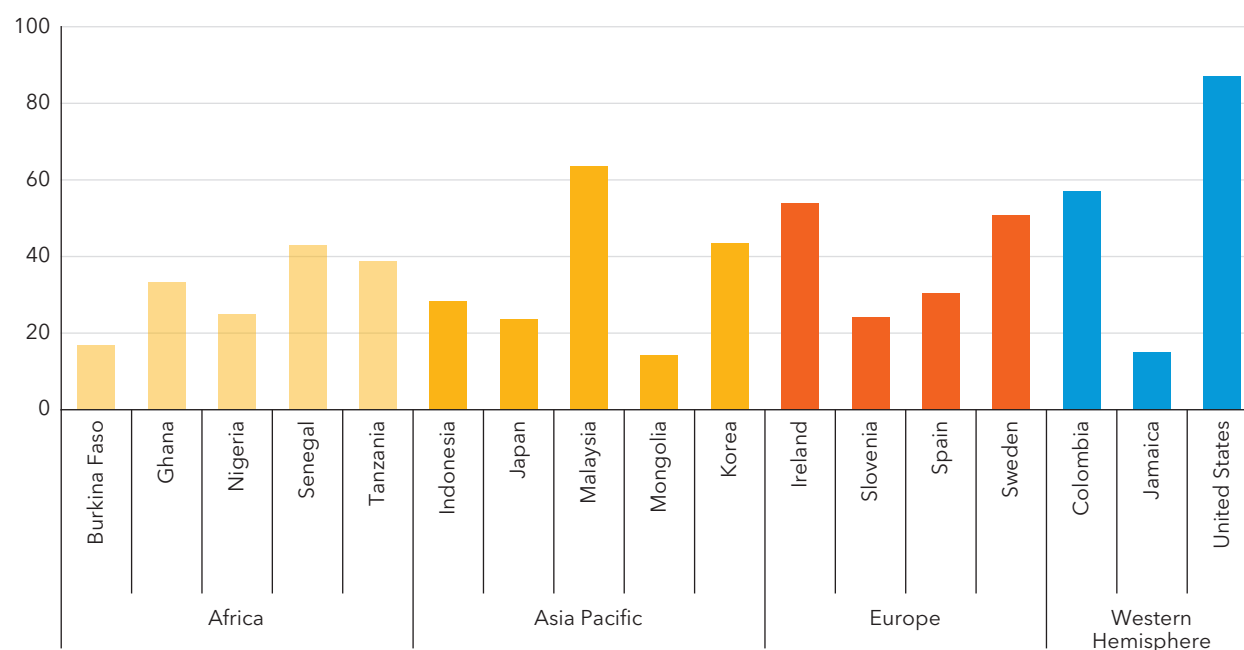
nonexistent, whereas markets in the underlying collateral can be very depressed compared with historical or long-term values as a result of economic conditions or excess supply created by previous overinvestment and subsequent illiquidity (see Box 3). Therefore, instead of using a market price, the AMC normally needs to estimate the real economic value of the assets using valuations consistent with market principles, and with the expectation of making a reasonable rate of return for its shareholders over the expected life of the AMC. Since returns of distressed assets are highly uncertain in the absence of a reference liquid market, valuations should be based on sufficiently prudent macroeconomic assumptions to avoid an overly optimistic pricing. The assumptions on funding and operating costs should also be prudently reflected in the valuation models.

A high transfer price will substantially increase fiscal costs and risks for an AMC. In some cases, the transfer price can be influenced by incentives to make optimistic estimates, delay loss recognition, and bet on economic recovery. Of the sample of AMCs covered in Annex 1, more than half (including Colombia, El Salvador, Finland, and the first batch of assets transferred in China) received the distressed assets at the banks' book value, that is, a 100 percent transfer price (Figure 5) making it very challenging to minimize fiscal costs.³⁰ In many instances, this was explained by the fact that they were public agencies established with broader powers beyond asset management, for example, bank restructuring and recapitalization, or deposit insurance (Ghana, Indonesia, Jamaica, Mexico, Türkiye, United States) or vehicles created to deal with all the assets and liabilities of failing banks (Senegal, United Kingdom). Whereas, out of the sample of AMCs covered in Annex 1 for which there is sufficient information, only five AMCs were able to achieve a recovery ratio above 50 percent of the book value recorded by banks (Figure 6).³¹ At the other extreme, although

³⁰ In these cases, even a good track record of recoveries would be hampered by the high initial price assumed.

³¹ Book value of the transferred assets in the balance sheets of the participating banks at the moment of the transfer to the AMC. Some of the AMCs are still operational, so their recoveries may increase going forward.

Figure 6. Recoveries of Transferred Assets
(Percent of banks' book values)



Source: IMF staff.

rarely seen in practice, an excessively low transfer price would be equally detrimental; it would unduly inflate bank recapitalization needs, put downward pressure on market prices, and risk further financial instability.

Prudent valuation is critical to set the right incentives and minimize moral hazard. When a (fully or partially) publicly funded AMC acquires distressed assets from commercial banks, the pricing should be such that the selling banks fully crystallize the losses. A realistic recognition of losses is also essential to weigh policy options in the context of bank resolution. On the one hand, overpaying for the assets transferred to the AMC would bring implicit government support to banks' shareholders and creditors, who would not fully bear the losses corresponding to their investments. On the other hand, if banks have not provisioned their bad loans adequately, they will realize a loss upon sale of these assets to an AMC at fair prices, which reduces incentives to sell assets and could result in the failure of an AMC strategy. In combination with policies to ensure that banks recognize and provision their losses appropriately, an obligation to sell NPL portfolios to the AMC may also be required.

The financial objective of any AMC should be to, at least, break even and recover the public funds deployed. The AMC should seek to recover the amount paid for the assets transferred, together with the operating and financial costs incurred over its lifetime. This is even more important when public resources are involved, which should be deployed only after the asset losses are recognized and accrued on the balance sheets of the participating banks. To ensure the effectiveness of the policy approach, the supervisor should engage with participating banks to ensure that valuation practices are appropriate, including collateral valuations. One approach that could be helpful is for supervisors to introduce time-bound collateral haircuts based on the type of collateral and the length of time that the loans have been past due.³²

³² In Spain, the authorities compelled banks in 2012 to lower collateral valuations, depending on the type of collateral and the length of time a loan is past due. Authorities have also applied this approach to enforce sound credit risk rating and provisioning practices outside of using an AMC (for example, Romania).

The valuation policy and methodology should be clear, comprehensive, and aligned with the commercial mandate of the AMC to maximize recoveries from its assets. These should include the definition of the selection criteria for appraisers, who should apply international valuation standards,³³ the use of market-based valuation methods following best international practices, and the performance of frequent valuation reviews in order to incorporate the latest market information. This will help guide the AMC's ongoing financial policies, leading to better operational decision making and clear benchmarking against which to assess its performance and ensure adequate accountability. It will also enhance the credibility of the AMC when negotiating with the borrowers of the acquired loans, as well as with potential buyers.

The valuation procedures should ensure that a uniform methodology is used by asset classes and equal treatment across the participating banks. The methodology should be developed and applied on all asset transfers to the AMC. Accordingly, valuation procedures should be prepared well before starting asset purchases, because their absence would risk significant losses for the AMC and ultimately for the taxpayer. Various methodologies may be used for different asset types. AMCs can base their asset valuation models on various factors including (1) existing cashflows (if any), (2) underlying collateral, (3) quality of documentation, and (4) cost of implementing various workout strategies. Any recent asset quality reviews may also provide useful reference points.

Valuation is an ongoing process that should continue while the assets remain in the AMC. Valuation is key during the life of the AMC. The AMC should use the revalued "starting balance sheet" to measure performance and define business plans rather than purchase prices.³⁴ Valuations should be regularly updated as transactions occur and new market information becomes available and more complete. The value of the assets may deteriorate faster in AMCs than in banks, especially if they are not actively managed, and this can ultimately lead to deterioration of the general credit discipline and payment culture. Therefore, a uniform periodical valuation with the AMC's internal models—adjusted where necessary against the experience gained—coupled with workout and restructuring practices for distressed assets, will realize long-term economic value for the transferred assets and help minimize losses.

Funding and Capital Structure

The funding and capital structure of an AMC need to be carefully designed. In systemic crisis situations, the state's participation in the capital and funding of the AMC is typically required. The risks may be perceived as too high by private investors, and the protection of financial stability and the support for economic recovery may merit deploying public funds. Adequate equity should be in place from the beginning to sustain the AMC's operations—especially during the early years, which are typically loss-making—so that the risk of requiring further capital injections is minimized. In addition, the funding structure will determine the extent to which the banks transferring assets to the AMC are compensated with liquid funds, which may be critical to their viability. Adequate funding arrangements will allow the AMC to acquire distressed assets from participating banks in the volume necessary to clean up their balance sheets and cover their own operational costs.

³³ AMCs' balance sheets should be valued using going-concern rules, because AMCs are financially viable companies. Gone-concern rules should be applied at the end of the AMC's lifespan, reflecting lower values of assets that should be sold at distressed prices to meet the time horizon.

³⁴ When transfer prices deviate significantly from market values, the AMC will be inclined to quickly sell the best assets (that is, those with the lowest bid-ask spreads), progressively deteriorating the average marketability of the portfolio. Also, when book values are tied to purchase prices, the AMC will be inclined to sell assets that generate book profits, regardless of the market value and the best long-term divestment strategy. These problems have often arisen in AMCs whose transfer prices were below market, such as the Bank Asset Management Company (Slovenia) or SAREB (Spain). SAREB's accounting rules were amended in 2015, three years after its creation, to value assets at market, resulting in significant accounting losses.

Funding

Government funding, either in cash or with instruments that can be converted into cash, should be the preferred approach. Centralized AMC are usually (fully or partly) government funded. This can be done in three ways: (1) injecting cash directly from the government budget; (2) most commonly, through the AMC issuing government-guaranteed bonds that are given to the participating banks in exchange for the distressed assets (valued at the transfer price); or (3) giving government bonds to the AMC that it can use to pay for the transferred assets. When the AMC funding consists of government-issued or -guaranteed liabilities, their liquidity is tied to that of the sovereign. If government-guaranteed AMC bonds are issued, they should have an explicit and credible government guarantee and be tradable and listed, with similar characteristics to tradable government debt to facilitate comparable market liquidity. In addition, they should be designed to meet the collateral requirements for central bank liquidity support to enable participating banks to gain liquidity relief. They should have sufficient tenors to allow the AMC to fulfill its mandate within a credible timeframe. However, it is important to note that small and/or highly indebted sovereigns may lack a market for such bonds.

The liquidity relief that banks obtain from government-guaranteed AMC bonds may only be partial. This may occur for the following reasons: (1) the valuation of collateral depends on market conditions and other events such as sovereign rating downgrades, (2) central banks' general refinancing terms and rules may change over time, (3) banks may face hurdles when borrowing on the wholesale funding market because investors may be reluctant to subscribe to bank debt that is junior to large amounts of secured liabilities to the central bank, and (4) below-market coupon AMC bonds can curb banks' profitability, which would make banks less attractive for equity investors, as well as hinder the eligibility of the bonds as collateral. Furthermore, capital markets may have little appetite for debt instruments issued by AMCs as a result of their niche nature, even if they are tradeable and listed.

Other approaches to funding are not recommended. In some instances, the central bank has played a significant role by (1) providing direct funding through a dedicated facility, (2) guaranteeing the bonds issued by the AMC, or (3) providing not only direct funding but also capital to the AMC. If the AMC funding consists of central bank lending, its liquidity is ensured, but at the risk of potentially causing losses that could undermine central bank independence or impede monetary policy implementation. Central bank financing of AMCs is likely to erode its independence and require ad hoc legal and operational arrangements, given that AMCs are not standard counterparts to central bank operations. As such, direct central bank funding should only be considered in urgent cases on a temporary basis and if subject to a government indemnity. Some AMCs have received funding or guarantees from the deposit insurance system (DIS). If the DIS is responsible for liquidating the assets of failed banks, in some circumstances it may make sense to pool their assets and manage them in one entity, for example, RTC during the savings and loans crisis in the United States. However, in general, a role for the DIS in funding a state-controlled, centralized AMC is not recommended given that the resources of the DIS fund are limited and should be aimed at protecting depositors, not supporting open banks.

The AMC's liability structure should reflect the risks and expected cashflows from the distressed assets. Once operational, the AMC should quickly perform a full assessment of the assets received and a realistic estimate of the timeline during which the cashflows are likely to be received. The maturity structure and currency composition of the liabilities can then be adjusted accordingly to avoid the need for large refinancing operations, particularly before net positive cashflows are expected. The AMC should pay a market interest rate for the funding, commensurate with its risks. It is advisable that the liability structure includes a share of pure market funding for the AMC (with no guarantees) providing a benchmark that can be used to guide operational decision making. Carrying loans or collateral on behalf of the state has an opportunity cost, and competition concerns should also be considered.

Capital Structure

Capital is the first instrument to absorb losses and to fund the initial operations of the AMC. An AMC should commence with sufficient capital so it has a buffer to absorb potential losses, which are more likely during its first years of operations. Its capitalization should be strong and commensurate with the high financial risks that the AMC will face over its lifespan. This needs to be balanced with the AMC having sufficient financial leverage to acquire large portfolios and to optimize its funding structure. Although it is difficult to define a specific metric, a cap on an AMC's leverage³⁵ will be a useful safeguard to avoid bloated entities and prevent funding structures aimed exclusively to reduce upfront fiscal costs (capital) at the cost of higher fiscal contingencies (high-risk bonds with a government guarantee).

The capital of AMCs may include other hybrid instruments, such as subordinated debt, but these should be limited so that the AMC has sufficient high-quality capital to absorb losses. Country experience in the issuance of subordinated debt shows that their maturity has normally been aligned with the expected lifespan of the AMC. In other instances, perpetual instruments have been issued to try to replicate the indefinite duration of equity. It is important to align the cost of capital with the performance of the AMC. This can be achieved by linking dividends on equity and interest payments on subordinated debt to the AMC's recoveries from working out its assets and achieving positive net income. In addition, introducing a window for the early termination of subordinated debt after a certain period of time (for example, five years) would enable the AMC to adjust its capital structure to faster than expected recoveries, or to more favorable market conditions.

AMCs' capital structure can range from full state ownership to various forms of private-public partnership. State participation in the equity of centralized AMCs is typically required after a systemic financial crisis. In most instances, AMCs' capital was fully subscribed (directly or indirectly) by the government; in other cases, private investors also participated.³⁶ The latter can be achieved with the banks taking first losses followed by a profit-sharing arrangement with the government, or with other types of risk-sharing arrangements. There may be instances in which the government may not be able to fully fund the AMC, because the fiscal space is limited and/or the AMC is large relative to GDP. In these cases, governments can try to pursue wider involvement of private investors, which should go beyond the participating banks. Participation in the capital of the AMC by other (domestic and foreign) private investors with expertise in distressed asset markets can help transparency and accountability in the AMC's operations and promote a commercial focus.

Among the sample of 30 AMCs in Annex 1, most were established by the government. There have been different forms of state ownership for AMCs set up by the government: fully or partially, directly or indirectly (for example, through the Ministry of Finance or a separate agency). There were nine instances of central bank ownership of the AMCs; in two of these cases, the central bank transferred ownership at a later stage. Four cases entailed ownership by the DIS.

The ownership and decision-making bodies of the AMC should reflect the risk taken by the state, not only through capital but also through funding. Involvement of private equity will enable the AMC to maintain a commercial focus and bring expertise and best practices to the management of distressed assets. However, if the capital of the AMC is thin compared with its funding as a result of a leveraged structure, then

³⁵ A maximum ratio was introduced in the Eastern Caribbean Currency Union, where the Eastern Caribbean Asset Management Corporation could only issue debt eight times its equity. In Spain, although the legal framework did not require a minimum capital ratio, SAREB's financing structure was designed such that equity and subordinated debt represented at least 8 percent of total assets.

³⁶ In case an AMC is set up for going-concern banks, participating institutions may be willing to take an equity stake in the vehicle. In the more frequent case of an AMC acquiring assets from failed banks, private participation is rarer and usually driven by the government's interest in avoiding the consolidation of the AMC debt into the public accounts by taking a minority equity stake only.

the sovereign guarantees will likely determine who is footing the bill if the AMC incurs significant losses. Paradoxically, the state would assume most of the risks of an undercapitalized vehicle that is nonetheless controlled by private investors. The following three main schemes can be distinguished from international experience. In the simplest scheme, the government would bear the full risk as well as potential upsides. Another ownership structure entails first losses being shared between private equity holders and the government (for example, 50/50) up to the value of the capital. Potential profits would be shared equally between private investors and the government, albeit with the possibility of agreeing limits for the upside of the private investors. Last, in the case of AMCs established only for dealing with distressed assets from failing banks, the creditors of the resolved banks (including the government and the DIS) could bear the losses and receive any upside from asset recoveries according to the creditor hierarchy.

Exposing participating banks to the profits and losses of the AMC, either through capital or through loss-sharing arrangements, should be carefully calibrated. Although the participating banks may initially seem good candidates to be shareholders of the vehicle, it is preferable to engage other private investors to avoid defeating the aim of the AMC, that is, to insulate the participating banks from NPL losses. Ideally, private sector participation should be secured from investors who are unconnected to a weakened domestic financial system. Experience suggests that such new investors may be hard to secure without offering significant concessions and/or control, which may undermine the public interest objectives of the AMC. Having participating banks share a portion of future asset recoveries may align incentives in cases where these banks continue to manage the assets on behalf of the AMC. However, this arrangement could raise conflicts of interest and does not fully separate the participating banks from the losses associated with the problem assets transferred to the AMC.

IV. Governance and Operations

Independence, transparency, and effective governance are vital to the successful operation of an AMC.

AMCs can be subject to strong pressure from political and entrenched interests to overpay for assets, which can make them prone to making losses from inception. Political considerations—avoiding foreclosures or supporting particular sectors or vulnerable borrowers—can interfere with commercial decision making. Resolution of individual assets can also be subject to lobbying or corruption, for example, to unfairly restructure debts, allocate foreclosed assets at low prices, or avoid foreclosure. To insulate the AMC from these pressures and let it focus on maximizing the recovery value of the transferred assets, the AMC should be independent and transparent in its operations. This will enable the AMC stakeholders—government, shareholders, creditors, and the public—to evaluate the AMC’s performance and alignment with its stated objectives, and thus to maintain public confidence.

Decision Making and Organization

The governance structure should have adequate systems of checks and balances guiding the AMC in the most efficient way. The governance structure should ensure that the composition of its decision-making bodies reflects their mandates:

- The owner(s) should be tasked only with formulating the mission statement, setting the high-level objectives, as well as appointing any supervisory board and the board of directors.
- Some AMCs have an additional supervisory board, on top of the board of directors and without decision-making powers, to advise, monitor progress in meeting the expected goals, and represent the interests of the owner(s).
- The board of directors should oversee management and operations, set and review the AMC’s policies and procedures, appoint and hold accountable its executives (in particular, the chief executive officer), and determine the AMC’s risk appetite.
- Board committees should typically include audit (and compliance) and remuneration committees, as well as potentially others (for example, a corporate governance/nominations committee and an investments committee).

The board of directors should have the ability to set and review internal policies. Internal controls are important to ensure compliance with laws, regulations, and internal policies, and to ensure that the AMC operates without political or interest group interference. Internal codes should be developed to govern certain aspects, including risk management, conduct, and ethics for employees, standards for management, and disposal of assets among others. The board of directors and senior management should declare and disclose actual and potential conflicts of interest and make themselves absent from discussions and decisions related to their personal and business interests. Direct reporting lines to the board(s) and the chief executive officer should be in place for the compliance and internal audit functions (and the audit committee, if in place).

AMCs’ internal organization should be structured considering their mandate, business plan, and sunset clause. AMCs tend to be organized along two main functional lines for dealing with impaired assets. One is focused on credit management and recovery, closer to conventional financial business models. The other is the asset management function, closer to an industrial business model, where specialized strategies for each type of asset (real estate developments, rental, etc.) are developed. Other corporate and supportive functions, such as legal, IT, and human resources, are also critical to an effective AMC.

The remuneration and incentive structure should encourage staff to maximize recovery value in a timely manner. The work and goal of an AMC should be commercially oriented and be supported with

specialist expertise, typically unavailable within the public sector. At the same time, the AMC may find it difficult to attract and retain scarce expertise, given that it will wind down its operations in the medium term. Performance-based remuneration can help overcome these challenges. On the other hand, it can bring with it the risk that assets may be disposed of, regardless of price, to get a quick bonus. In order to mitigate this risk and ensure that the value for the AMC is not forsaken in the interest of staff, the board's oversight, along with rigorous internal controls and checks, is necessary. To provide proper incentives, staff rewards should be market based and earned for closing deals and transactions.

Independence

The AMC should be a separate legal entity, established at arm's length from the government. It should have full professional autonomy in day-to-day operations, mitigating the risks of businesses lobbying or political interference. The framework would ideally be established by specific legislation so that it cannot be changed easily and/or nontransparently, thus ensuring the stability of its rules and independence. The legislation should include all provisions related to the governance of the AMC, but this condition alone is not sufficient, because the law needs to be accompanied by effective implementation (Cerruti and others 2016). Although AMCs may have board members from the public sector to represent the government's interests, good international practices suggest that the appointment of experienced board and senior management that do not come from the public sector is critical. Fit-and-proper tests should be performed based on clearly set eligibility criteria (for example, experience and expertise) for the nomination of board members. The conditions for removal of board members and management should be stipulated in the relevant legislation to ensure that partial business interests or political pressures do not drive their dismissal. The AMC board, management, and staff do not need to be subject to a special regime that protects them from liability risks, given that an AMC does not exercise public powers. However, some countries adopt liability protections for damages arising out of actions taken by AMC staff in good faith, similar to those applied to staff from central banks and supervisory and resolution authorities.³⁷ An alternative approach that may be better suited to the commercial nature of AMCs and their operations is to seek arrangements for full coverage liability insurance to indemnify legal costs and damages for staff actions taken in good faith. Examples include directors' and officers' liability insurance or other programs that provide legal assistance to AMC staff involved in judicial proceedings related to the discharge of their functions.

Operational and budgetary independence should be afforded to AMCs (Ingves, Seelig, and He 2004). Maintaining its own budget and staffing, including setting its own remuneration policies, would best enable the AMC to secure resources and expertise to carry out its tasks and operations. The operating budget should be separate from funding allocated for asset purchases. AMCs should have the ability to hire advisory firms and to set and execute operational and valuation policies.

Transparency, Accountability, and Oversight

Maintaining transparency and accountability is essential to ensure an adequate assessment of the AMC's performance and of the effective use of public funds. Given its commercially oriented mandate, the AMC should ensure the full, accurate, and timely disclosure of relevant information to the public. Audit, reporting, and disclosure requirements should ensure that the AMC's management and board are held to high standards and remain focused on their mandate. They should allow the AMC's managers to establish a framework against which results can be judged fairly. For example, if an AMC buys assets at high prices and later revises their value in accordance with a more rigorous valuation model and actual market developments,

³⁷ See Khan (2018) for more information on liability and immunity arrangements of central banks and financial supervisors.

parliamentary scrutiny and published accounts can help establish a well-founded explanation for the losses to the general public.

Externally audited and published financial statements will help stakeholders evaluate whether the AMC is managing its assets in accordance with its mandate. Production and publication of quarterly and annual reports including the externally audited financial statements is critical. The accounting standards applied should be internationally accepted, such as the International Financial Reporting Standards (IFRS) or the same standards applied to the banking sector.³⁸ The reports and financial statements should be publicly available on the AMC's website. The external auditor should be independent and rotate periodically, for example, every three years. As a publicly funded entity, the AMC should report to the parliament and/or other relevant bodies (such as the national public auditor) on the use of public funds. This public oversight should not be limited to an assessment of whether the initial design of the AMC is being appropriately operationalized, but it should also check how the business plan is being met.

Oversight of AMCs should focus on good governance and performance. It should cover AMC-specific legal requirements, such as corporate governance, risk management policies, accounting standards, or asset transfer rules. Other areas of AMC activity, such as conduct and consumer protection, capital markets, or antitrust rules, will be subject to the corresponding regulation and supervisory bodies. A distinctive component of AMC's oversight refers to its ability to complete the divestment of assets within the time horizon and maximizing recoveries. This requires monitoring the business plan and the strategic decisions of the AMC and using market benchmarks to assess its performance. Although this oversight might exceed the ordinary powers of a public shareholder, it should not compromise the professional independence of the AMC's management. Given the focus on protecting public funds, finance ministries are usually responsible for the oversight function of AMCs, either directly or through a specialized agency.³⁹ The Ministry of Finance may oversee the AMC's business plan and strategic decisions and use market benchmarks to assess its performance. When the AMC is created in the context of bank resolution, the resolution authority is usually responsible for its setting up and also for monitoring the consistency of its operation with the resolution objectives. The case for the banking supervisor having a lead oversight role is weak, especially once the transfer of assets and risks from banks' balance sheets is complete.

Operations

A sound business plan should drive the AMC's operating model. Based on realistic assumptions and a thorough understanding of the portfolio, the plan must define the mix of sale, investment, or holding strategies that best fit the company's risk appetite and its operational constraints (mandate, financial costs, lifespan, type of assets). Direct asset sales reduce risks and provide liquidity, which can be especially needed in the start-up period of the AMC. However, sales to distressed asset investors may prove difficult to secure and entail high discounts. The AMC may decide to increase asset value, for example, by developing unfinished projects or exploiting real estate assets (residential or commercial) if consistent with its mandate. Although this may improve the recovery prospects, it also entails further investment, exacerbating the already high risks. Portfolio strategies should always be proactive enough to avoid warehousing approaches that end

³⁸ NAMA (Ireland) adopts IFRS. SAREB's accounting rules are determined by Bank of Spain, which is also the rule-making body for the implementation of IFRS in the banking sector. If there are any divergences from generally accepted accounting principles, those should be clearly explained, including their rationale.

³⁹ For example, in Spain, SAREB's performance and business plan were initially supervised by a commission composed of members from the Ministry of Economy, Ministry of Finance, the Bank of Spain, and the National Securities Market Commission. The commission was empowered to replace SAREB's managers. Since the Spanish Executive Resolution Authority took full control of SAREB's capital in 2022, the oversight is conducted through the standard shareholders' rights and powers. The Bank of Spain is still supervising SAREB's compliance in specific areas, including accounting and governance, and the capital markets supervisor oversees SAREB as an issuer of securities.

up deteriorating asset values. They should include, in the case of foreclosed assets, property services and preparation for sale, and, in the case of loans, restructuring of viable and cooperative borrowers, legal actions (that is, foreclosure of collateral or insolvency proceedings), and realistic write-offs of uncollectible debts.

Loan servicing can be retained by the originating banks, performed in-house or outsourced. Although originating banks retain key knowledge of the borrowers and assets, significant conflicts of interest and operational constraints may arise if they retain management of the loans transferred. Loan servicing by originating banks can be helpful for a limited time until the AMC develops in-house capabilities, but it is a suboptimal choice in the longer term. Undertaking loan servicing in-house may require significant investments in IT and personnel but benefits from maintaining strategic control of the entire value chain. Last, outsourcing gives the AMC access to highly specialized professionals and the flexibility to accommodate strategies for different asset classes. However, aligning the incentives of the AMC—aiming to optimize both the price and speed of disposal—and the costs associated with servicing platforms can be challenging. The AMC's ability to smoothly shift portfolios among providers and carefully design management contracts with key performance indicators will be critical when outsourcing. Although the operational structure of each AMC should be tailored to the circumstances and jurisdiction in which it is established, lean operational structures, focused on strategic and oversight functions, are typically optimal where efficient third-party asset service providers exist. In contrast, fully in-house or bank-dependent operational structures may prevail in jurisdictions lacking efficient, preexisting servicing platforms.

Exogenous and operational risks are exceptionally high and warrant strong internal corporate control. Extensive and granular knowledge of the assets, and qualified and independent professionals, are the first line of defense to prevent avoidable damage to the portfolio's value. However, many exogenous factors, such as legal changes, real estate prices, or funding conditions, can harm a high-risk business model. Operational risks are typically significant, particularly when AMCs handle assets internally or engage in direct investment activities (such as real estate developments). These risks include damage caused by internal or external fraud, security risks, legal liabilities, reputational risks, data loss, or strategic employee churn. Accordingly, AMCs need a robust risk management system with a strong set of rules and control procedures.

V. Conclusion

AMCs are not a panacea; a careful analysis of the potential benefits, costs, and risks is warranted to make an informed decision. The creation of a state-sponsored AMC should be a last resort, considered after exploring alternatives to manage systemic crisis. Before choosing an AMC as the optimal policy to clean up banks' balance sheets, policymakers should be committed to recognizing and fairly allocating losses; addressing any shortcomings related to the legal, institutional, regulatory, and market environment for NPL management; and making a realistic assessment of the risks and costs that an AMC will entail.

If established, a centralized AMC should form part of a comprehensive strategy to address NPLs in the system. Setting up an AMC can form part of the solution, but it needs to be combined with other reforms, such as the development of a robust framework to deal with NPLs; looking for alternatives to deal with distressed assets (including those that may not be suitable for transfer to an AMC); ensuring that nonviable banks are resolved; and swiftly addressing deficiencies in the regulatory, supervisory, insolvency, and foreclosure frameworks. If used to purchase NPLs from failing banks, recourse to an AMC should be combined with other resolution tools to ensure that losses are shared with shareholders and creditors, and nonviable banks are removed from the system.

Establishing a fair transfer price is critical for the success of an AMC. A careful balance needs to be struck in order to ensure that the transfer price reflects fairly the value of the distressed assets and the expected costs associated with their disposal. Otherwise, the AMC would be "flawed" from inception, as overpaying for the assets cannot be compensated by diligent management of the AMC. In practice, setting a fair transfer price can be complicated by information asymmetries and the need to rely on assumptions about the future value of the distressed assets. If the transfer price is not based on a prudent valuation of assets—which estimates real economic value and incorporates the significant costs and risks entailed—the AMC will only serve as a mechanism to defer losses to the taxpayer, rather than minimize them.

Running an AMC with a clear mandate and sound governance rules can mitigate, but not eliminate, the high risks it entails. Setting up an AMC is typically complex, costly, and fraught with many operational issues (asset migration, IT systems, first valuation of assets, staff recruitment, tax costs). In addition to prudent transfer pricing, experience shows that the success of an AMC relies on highly skilled and independent management, a strict and time-bound mandate to maximize recoveries, efficient corporate control, transparency, and accountability. Still, downside risks—always high in the distressed assets industry—are typically exacerbated for AMCs by large balance sheets and financial leverage. A deviation in macroeconomic forecasts, a mistake in strategic decisions, or an erosion of the creditor's rights under the applicable legal framework can bring significant losses.

Past experiences with AMCs show that there is a considerable risk of public losses being incurred. At the moment of the creation of the AMC, its potential benefits are visible, as it permits banks to refocus on their core activity. However, experience shows that when considering their complete lifespan, many AMCs ultimately led to a significant cost to the taxpayer. Policymakers need to balance this potential risk with the opportunity cost that leaving a systemic level of NPLs in the banking system would have on economic growth.

Annex 1. Key Aspects of Centralized State-Sponsored Asset Management Companies

This annex⁴⁰ summarizes key characteristics of state-sponsored AMCs established between 1989 and 2022 across the membership of the IMF. In total, there are 30 cases included in this annex.

It focuses on centralized state-sponsored AMCs. Therefore, cases of decentralized⁴¹ state-sponsored AMCs established in Angola, Azerbaijan, Belgium, Cyprus, Germany, Italy, Switzerland, and the United States have been excluded. The cases of China, Finland, Kazakhstan, and Sweden are, however, included because each of these countries established several decentralized AMCs to deal with the distressed assets of several banks, thus reaching a systemic dimension.

Other cases of public agencies with broader powers beyond asset management (restructuring, recapitalization, deposit insurance) are also included. This is the case of Ghana, Indonesia, Jamaica, Mexico, Türkiye, and the United States. The vehicle established in Senegal took on all assets and liabilities of several failing banks. In the case of the United Kingdom, the vehicle assumed all assets from two nationalized failing banks.

This annex is organized by regions: Africa, Asia and the Middle East, Europe, and the Western Hemisphere.

⁴⁰ Sources for this annex include Baudino and Yun 2017; Cerruti and others 2016; Dreyer 2021a; Dreyer 2021b; Dreyer 2021c; Dreyer 2021d; Dreyer 2021e; Dreyer 2021f; Engbith 2021; Engbith and Leon Hoyos 2021; Fulmer 2021; Fung and others 2003; Fung and others 2004; IMF 2015a; IMF 2015b; IMF 2015c; IMF 2019b; IMF, World Economic Outlook database; Klingebiel 2000; Lam and Moreno-Badia 2023; Lawson 2021; Lawson and Engbith 2021; León Hoyos and Nye 2021; Ma and Fung 2002; Matsumoto 2021; McNamara 2021; McNamara and others 2021; Nye 2021a; Nye 2021b; Nunn 2021a; Nunn 2021b; Nygaard 2021; Pereša and Vidon 2021; Runkel 2021a; Runkel 2021b; Smith and Nunn 2021; Tam and Fulmer 2021; Terada-Hagiwara and Pasadilla 2004; Ungersboeck and Runkel 2021; Ungersboeck and Nunn 2021; the dedicated websites from country authorities referenced at the end of this publication; and authors' calculations.

⁴¹ Decentralized AMCs are created to transfer distressed assets from only one bank to an AMC.

Region: Africa

Country: Burkina Faso

Name of the AMC: Bureau de Recouvrement des Crédits du Burkina (BRCB)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred ¹	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets ²	Average Transfer Price ³	Wider Mandate?
Fully owned by the government	n.a.	Amount n.a. Government bonds, budgetary allocations, and financing from multilateral development banks	n.a.	CFAF 64.4 billion (6.5 percent of GDP)	CFAF 10.8 billion Recovery rate: 16.8 percent	n.a.	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation? ⁴
Nonperforming loans (NPLs)	n.a.	n.a.	Credit institutions under a restructuring process	Yes	1991	No	No. It ceased operations in 2002

Note: AMC = asset management company; n.a. = information not available.

¹Book value of the transferred assets in the balance sheets of the participating banks at the moment of the transfer. In local currency (or in US dollars) and as a percentage relative to the nominal GDP of the year of creation of the AMC (when the vehicle was created in November or December of a given year, the following year is considered instead).

²Recoveries to date with the latest available data, compared with the book value of the transferred assets in the balance sheets of the participating banks at the moment of the transfer to the AMC; only comparing nominal values.

³As a percentage of the book value of the transferred assets in the balance sheets of the participating banks at the moment of the transfer.

⁴As at the end of 2022.

Region: Africa
Country: Ghana
Name of the AMC: Non-Performing Assets Recovery Trust (NPART)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	n.a.	n.a.	n.a.	GHS 59 billion (1.2 percent of GDP)	GHS 19.6 billion Recovery rate: 33.2 percent	100 percent as it assumed the assets at book value	Powers to restructure and recapitalize state owned banks

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs, many of which had been granted to state-owned enterprises	n.a.	The 250 largest loans represented almost 90 percent of the transferred assets	State-owned banks	Yes, a special court was created to deal with the NPLs transferred to the AMC	1990	Five years (not met)	No. It ceased operations in 1997

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Africa

Country: Nigeria

Name of the AMC: Asset Management Corporation of Nigeria (AMCON)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Owned by the central bank and the Ministry of Finance (50 percent each) However, the chief executive officer and the majority of board members selected by the central bank	NGN 10 billion	NGN 5.5 trillion from state-guaranteed bonds issued by the AMC. These were zero-coupon bonds issued in several tranches that were later redeemed by the central bank. In 2011, a resolution fund was created with a target level of NGN 1.5 trillion with annual contributions (10 years) from the central bank (0.5 trillion) and banks (1 trillion) to help fund AMC operations	NGN 4.7 trillion owed to the central bank (2023) (85.5 percent of initial funding)	NGN 4.02 trillion (7.2 percent of GDP)	NGN 1.6 trillion (2023) Recovery rate: 34.3 percent	43.8 percent (NGN 1.76 trillion/NGN 4.02 trillion) This figure excludes costs of bank recapitalizations (which amounted to another NGN 2.3 trillion)	Assumed mandate to recapitalize banks, injecting capital in eight out of ten failing banks. It also purchased three bridge banks

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Corporate loans (mainly oil and gas related and others such as aviation), mortgages, loans secured by shares, and unsecured loans	Indirectly, since banks were not allowed to have a NPL ratio of more than 5 percent	77 percent of loans transferred were valued above NGN 1 billion.	All banks (22 out of a total of 24 banks in the system transferred assets to the AMC)	Yes (for example, seize borrowers' assets, or appoint a special administrator)	July 2010	No	Yes

Note: AMC = asset management company; NPL = nonperforming loan.

Region: Africa

Country: Senegal

Name of the AMC: Société Nationale de Recouvrement (SNR)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	CFAF 25 million	Total funding n.a. Deposits from the failing banks were transferred to the AMC with the intention to reimburse them with the proceeds from the recoveries.	n.a.	CFAF 144 billion (7.3 percent of GDP)	CFAF 62 billion Recovery rate: 43.1 percent	100 percent, as it assumed the assets at book value	Assumed all assets and liabilities from selected failing institutions

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs	Yes, in practice. NPLs of liquidated banks were transferred to the AMC together with certain liabilities	n.a.	Closed banks only. Seven failing banks, five of which were state-owned banks	Yes	February 1991	Not in practice, as it was set at 99 years	Yes

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Africa

Country: Tanzania

Name of the AMC: Loans and Advances Realization Trust (LART)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	n.a.	Amount n.a. Government bonds	n.a.	TZS 85 billion (6.4 percent of GDP)	TZS 33 billion Recovery rate: 38.8 percent	n.a.	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs (mostly commercial loans to state-owned enterprises)	Yes	n.a.	Initially targeted at state owned banks. Later expanded (in 1996) to private credit institutions, although unclear that the latter participated	Yes, a special court was created to deal with the NPLs transferred to the AMC	June 1991	Initial: five years Revised: nine years (met)	No. It ceased operations in January 2001

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Africa

Country: Zimbabwe

Name of the AMC: Zimbabwe Asset Management Corporation (ZAMCO)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the central bank	USD 1 million	USD 1.18 billion (government bonds)	No, repaid in full (2021)	n.a.	USD 768 million (2020) Recovery rate: n.a.	n.a. (Total amount paid was USD 1.13 billion)	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs	No	n.a.	Open banks only	No	July 2014	Ten years	Yes, but it is winding down its operations

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East

Country: China

Name of the AMC: The big four AMCs: Cinda, Great Wall, Huarong, and Orient

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	CNY 40 billion (CNY 10 billion per AMC)	CNY 1.4 trillion: - CNY 0.84 trillion in bonds issued by the AMCs - CNY 0.56 trillion of credit lines from the Central bank	n.a.	CNY 1.4 trillion (initial transfers in 1999, 2000) (15.5 percent of GDP)	CNY 0.21 trillion (15.0 percent)	100 percent for the initial transfers (CNY RMB 1.4 trillion), which were made at book value	Mandate also included restructuring state-owned enterprises

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs (mainly from policy lending) and shares in 580 distressed state-owned enterprises from debt-equity swaps. Almost half of the transferred assets were related to the manufacturing industry	n.a.	n.a.	One AMC was established for each of the big four systemic banks	No	April-October 1999	Ten years	Yes. The AMCs' operations have expanded dramatically, becoming complex financial conglomerates. NPL acquisitions, priced through auctions, are only part of current business

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East
Country: Indonesia
Name of the AMC: Indonesian Bank Restructuring Agency (IBRA)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government. IBRA had an asset management unit	n.a.	IDR 654 trillion in government bonds, most of which (IDR 431 trillion) were issued to recapitalize banks (recap bonds)	n.a.	IDR 645 trillion (55.8 percent of GDP)	IDR 151 trillion Recovery rate: 23.4 percent	100 percent in practice. Assets were transferred to the IBRA at book value after issuing a full guarantee on depositors and senior creditors for banks that were recapitalized or liquidated by IBRA	Broad powers to restructure and resolve banks

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Loans from failing and recapitalized banks. Around half of the transferred loans were denominated in foreign currency	Yes, in practice, as IBRA took control of the assets of the banks that it liquidated or recapitalized at book value	Corporate loans (with a face value of at least IDR 50 billion) comprised the most significant portion of the loans transferred	52 failing and recapitalized banks	Yes (for example, transfer assets without borrowers' permission or seize assets without court approval)	February 1998	Six years	No. It closed down in 2004, and all its remaining assets and liabilities were transferred to the Ministry of Finance

Note: AMC = asset management company; n.a. = information not available.

Region: Asia and Middle East

Country: Japan

Name of the AMC: Resolution and Collection Corporation (RCC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the Deposit Insurance Corporation	JPY 12 billion	Amount n.a. State-guaranteed bonds issued by the Deposit Insurance Corporation	JPY 0.54 trillion (2022)	JPY 34.9 trillion (6.6 percent of GDP)	JPY 10.2 trillion Recovery rate 29.2 percent	27.7 percent (JPY 9.66 trillion/ JPY 34.88 trillion)	No, at the time of its creation. However, in 2011, it was entrusted with a wider mandate (for example, to establish bridge banks)

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs, mainly real estate and corporate loans	Only for failing institutions, not for solvent ones	n.a.	All Japanese credit institutions (both solvent and failing)	No, but the Deposit Insurance Corporation established special investigative divisions making full use of its powers to help the AMC recover assets	April 1999	No	Yes

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East

Country: Kazakhstan

Name of the AMC: Rehabilitation Bank, Agricultural Support Fund, and Exim Bank

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the central bank	n.a.	Amount n.a. Government-guaranteed bonds and central bank funding facilities	n.a.	USD 2.34 billion (19.7 percent of GDP)	n.a.	n.a.	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
45 largest insolvent debtors (mining and metallurgical); 4,000 insolvent farms; export loans with government guarantees	Yes	n.a.	45 banks, majority of state-owned entities	n.a.	1994	Four years	No. In June 1998, the Rehabilitation Bank was reorganized and renamed the Rehabilitation Fund

Note: AMC = asset management company; n.a. = information not available.

Region: Asia and Middle East

Country: Kyrgyz Republic

Name of the AMC: Debt Resolution Agency (DEBRA)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Initially owned by the central bank; later owned by the Ministry of Finance since 2003	n.a.	USD 45 million from a World Bank loan	n.a.	USD 42 million (2.3 percent of GDP)	n.a.	n.a.	Liquidation and bank restructuring powers

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs	Yes	n.a.	Four state-owned banks, eight commercial banks	Yes	1996	Three years	Yes

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East

Country: Malaysia

Name of the AMC: Danaharta

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government (with only two out of nine board seats)	MYR 3.0 billion	MYR 14.1 billion: - MYR 11.1 billion from bonds issued by the AMC with state guarantee - MYR 3.0 billion from budgetary allocation	No. Repaid in full by March 2005.	MYR 47.7 billion (15.5 percent of GDP)	MYR 30.4 billion Recovery rate: 63.7 percent	45.5 percent (MYR 9.0 billion/ MYR 19.8 billion) In exchange for a management fee, it also managed NPLs with face value of MYR 27.9 billion, on behalf of the government	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Most loans were real estate loans and loans secured by securities	Only mandatory for banks receiving public recapitalization or with NPL ratios above 10 percent	To be eligible for transfer, NPLs needed to have a minimum size (MYR 5 million)	All credit institutions, including subsidiaries of foreign banks	Yes (for example, seize assets or appoint special administrators for borrowers without court approval)	June 1998	Seven years	No. It closed in December 2005

Note: AMC = asset management company; NPL = nonperforming loan.

Region: Asia and Middle East

Country: Mongolia

Name of the AMC: Mongolian Asset Recovery Agency (MARA)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Initially, it was a government agency. In 2000, it became a department of the Ministry of Finance, and in 2002, it became a state-owned enterprise	No capital issued	USD 64.4 million in total: - USD 29.4 million from government bonds - USD 35 million from an Asian Development Bank loan	n.a.	USD 35 million (3.0 percent of GDP)	USD 5 million Recovery rate: 14.3 percent	n.a.	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs	Yes	Only 30 percent of loans were corporate loans; remainder were loans to individuals	Two failing banks (People's Bank and Insurance Bank)	Yes, expedited access to courts	January 1997	Three years	No. It ceased operations in 2005

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East
Country: Korea
Name of the AMC: Korea Asset Management Corporation (KAMCO)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
In 1999, 42.8 percent owned by the government; 28.6 percent owned by one state-owned bank; and 28.6 percent owned by other financial institutions In 2023, 87.6 percent owned by the government, 9.7 percent owned by one state-owned bank, and 2.7 percent owned by other financial institutions	KRW 1 trillion (in 1999) (KRW 2.9 trillion at the end of 2023)	KRW 21.5 trillion: - KRW 20.5 trillion of state-guaranteed bonds - KRW 0.5 trillion from the state-owned bank - KRW 0.5 trillion from other financial institutions	n.a. A portion of the AMC bonds were converted into government bonds	KRW 106.2 trillion (18.0 percent of GDP)	KRW 46.1 trillion Recovery rate: 43.4 percent	36.3 percent (KRW 38.5 trillion/ KRW 106.2 trillion)	The AMC also bought bonds issued by the industrial group Daewoo

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs from commercial banks (56 percent of book value); bonds issued by Daewoo (32 percent) and NPLs from nonbank financial institutions, such as insurers (remaining 12 percent)	No	90 percent of the loans belonged to 1 percent of borrowers	All institutions, including gone and going-concern credit institutions as well as nonbank financial institutions (for example, insurers)	No, but it had special privileges (for example, exemption from financial transactions tax)	Its NPL Fund was created in November 1997	Not initially. Revised: 15 years	No, its NPL Fund was liquidated in November 2012 However, the AMC still exists and the KAMCO Act was revised in 2012 to allow the AMC to acquire corporate NPLs directly

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East

Country: Thailand

Name of the AMC: Thai Asset Management Corporation (TAMC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the central bank (through the Financial Institutions Development Fund) but the chairperson and board members were appointed by the Ministry of Finance	THB 1 billion	THB 231 billion issuance of 10-year bonds by the AMC and guaranteed by the Financial Institutions Development Fund (owned by the central bank)	n.a.	THB 780 billion (14.6 percent of GDP)	n.a.	34.0 percent (THB 265 billion/THB 780 billion)	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs (mainly manufacturing and real estate loans)	Yes, for state-owned banks and for state-owned decentralized AMCs (circa 80 percent of NPLs transferred); voluntary for privately owned banks	Loans were relatively large, and most of them were multicreditor loans	Credit institutions and decentralized AMCs that had been previously created	Yes (for example, special out of court restructuring powers without debtor's consent)	June 2001	12 years	No, it closed in June 2013

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Asia and Middle East

Country: Vietnam

Name of the AMC: Vietnam Asset Management Company (VAMC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the central bank	Initial: VND 500 billion Revised: VND 2 trillion, years after	n.a. Several issuances of special bonds to fund the purchase of NPLs over the years. These bonds had a 5-year maturity, then extended to 10-year maturity (in 2015)	n.a.	n.a.	n.a. It was established that all remaining loans at maturity of the special bonds would be returned to the originating banks	n.a. Purchased NPLs amounted to VND 375 trillion as of December 2020	Without an end date to purchase NPLs. The AMC recently (in 2020) continued to buy NPLs from banks with NPL ratios over 3 percent

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs	Yes, for banks with an NPL ratio above 3 percent	n.a.	Domestic credit institutions	No	May 2013	No	Yes

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Europe

Country: Finland

Name of the AMC: Arsenal

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government: - 74 percent owned directly - 26 percent through the Government Guarantee Fund	FIM 3.5 billion	FIM 20.6 billion; mainly state-guaranteed short-term bonds issued by Arsenal	n.a.	FIM 42.9 billion (8.0 percent of GDP)	n.a. Arsenal reported significant losses (FIM 18 billion)	100 percent, as it assumed the assets at book value	It bought two failing banks as well as other decentralized AMCs

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
NPLs, many of which were backed by real estate	n.a. Arsenal bought failing banks and decentralized AMCs	n.a.	Initially created for one bank resulting from the merger of 41 savings banks (Savings Bank) and later expanded to other problem banks and decentralized AMCs	No	November 1993	No	No It was put under liquidation in 2003 but continued until recently with some marginal operations

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Europe

Country: Hungary

Name of the AMC: Magyar Reorganizációs és Követeléskezelő (MARK)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Initially owned by the central bank. Privatized soon after in June 2017, as a result of the EU Treaty prohibition of monetary financing. No assets have been transferred into the AMC's balance sheet, which operates solely as a trustee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	--
		Intended to be fully capitalized and funded by the central bank with up to HUF 300 billion					

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Commercial real estate (NPLs and repossessed assets)	No	n.a.	Open to all credit institutions, including subsidiaries of foreign banks	No	November 2014	Ten years	No. Privatized in June 2017

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Europe

Country: Ireland

Name of the AMC: National Asset Management Agency (NAMA)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
NAMA held 49 percent of an SPV, with veto power over its decisions (shareholder agreement) Three private investors held 51 percent of the SPV	EUR 0.1 billion and EUR 1.6 billion of subordinated debt	EUR 30.2 billion in senior bonds issued by the AMC with state guarantee (95 percent of transfer price)	No. Repaid in full since October 2017	EUR 74.0 billion (44.2 percent of GDP)	EUR 47.4 billion (EUR 40.8 billion from assets and loans disposal; EUR 6.6 billion from other income) Recovery rate: 64.1 percent	43.0 percent (EUR 31.8 billion/ EUR 74.0 billion)	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Real estate loans, together with other loans provided to those borrowers, and associated derivatives	No	More than 75 percent of the transferred loans (in value by connection level) had a face value of at least EUR 100 million	Open to all credit institutions, including subsidiaries of foreign banks; five banks participated	Yes (for example, to appoint a special administrator or compulsory rights of purchase)	December 2009	Not formally. However, the initial plan was to liquidate assets in ten years, later extended to 16 years	Yes

Note: AMC = asset management company; SPV = special purpose vehicle.

Region: Europe

Country: Slovenia

Name of the AMC: Družba za Upravljanje Terjatev Bank (DUTB)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	EUR 0.2 billion	EUR 1.93 billion - EUR 1.56 billion of state-guaranteed bonds issued by the AMC - EUR 0.37 billion of a loan granted by the Ministry of Finance	EUR 0.5 billion (2019) (25.9 percent of initial funding)	EUR 5.8 billion (2019) (15.9 percent of GDP)	EUR 1.4 billion Recovery rate: 24.1 percent	34.5 percent (EUR 2.0 billion/ EUR 5.8 billion)	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Performing loans and NPLs from the largest banks	Yes	n.a.	Initially limited to the three largest state-owned banks and later expanded to other two smaller banks	No	March 2013	Initial: five years Extended: ten years	No. The AMC ceased to exist as a legal entity at the end of 2022 as it merged into the Slovenian Sovereign Holding, transferring to this government-owned entity all remaining assets and liabilities (fully repaid)

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Europe

Country: Spain

Name of the AMC: Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria (SAREB)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Initially, private financial institutions held 55 percent and the Spanish Executive Resolution Authority held 45 percent Currently the Spanish Executive Resolution Authority owns 50.1 percent	EUR 1.2 billion and EUR 3.6 billion of subordinated debt	EUR 50.8 billion State-guaranteed bonds issued by the AMC	EUR 30.5 billion (60.0 percent of initial funding)	EUR 107.1 billion (10.5 percent of GDP)	EUR 32.5 billion (EUR 25.8 billion from assets and loans disposal; EUR 6.6 billion from other income) Recovery rate: 30.3 percent	47.4 percent (EUR 50.78 billion/EUR 107.12 billion)	In 2022, the AMC legal framework was modified to encourage asset disposal with social interest objectives, keeping the goal of maximizing assets value

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Real estate-related NPLs, foreclosed real estate, and majority shareholdings in troubled real estate companies	Yes, only aimed at credit institutions that were subject to public recapitalization	Minimum size to be eligible for transfer: EUR 250,000 for loans and EUR 100,000 for foreclosed assets	Eight credit institutions (of which, seven were savings banks)	No	November 2012	15 years	Yes

Note: AMC = asset management company; NPL = nonperforming loan.

Region: Europe

Country: Sweden

Name of the AMC: Securum and Retriva (subsequently merged into Securum)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	SEK 27.8 billion (SEK 24 billion for Securum and SEK 3.8 billion for Retriva)	SEK 30.5 billion, of which SEK 13.5 billion state guaranteed	No, repaid in full. But only part of its capital was returned to the state (SEK 17.8 billion out of SEK 27.8 billion)	SEK 112 billion (6.3 percent of GDP)	SEK 57 billion Recovery rate: 50.9 percent	58.9 percent (SEK 66 billion/SEK 112 billion)	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Corporate and real estate loans with a minimum size of SEK 15 million (Securum) or SEK 5 million (Retriva)	Yes	n.a.	Two banks (Nordbanken and Göteborgbanken)	No, but they had a special privilege as they didn't have to liquidate their collateral within three years (some credit institutions were also exempted from this requirement)	1993 and 1994, respectively. Later merged in May 1996	10-15 years (met)	No. It was dissolved in June 1997

Note: AMC = asset management company; n.a. = information not available.

Region: Europe

Country: Türkiye

Name of the AMC: Savings Deposit Insurance Fund (SDIF)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
The SDIF is the deposit insurance fund, which, in 1999, was transferred from the central bank to the newly created Bank Regulation and Supervision Agency. Then, it created an asset management unit	n.a.	USD 19 billion - USD 17 billion from budgetary allocation - USD 2 billion from the central bank	No. In total, it repaid USD 8.5 billion. And the remaining debt (USD 10.5 billion owed to the government) was forgiven in 2008	The total assets of the banks that went under the AMC's administration were estimated at around USD 20 billion (around 7.3 percent of GDP)	USD 23.6 billion (cumulative recoveries as of the end of 2022 that also include recoveries from assets of other banks that failed in more recent years) Recovery rate: n.a.	100 percent. It took control of failing banks, assuming all their NPLs at book value	The SDIF is the deposit insurance fund and also responsible for resolving failing banks. As part of this wider mandate, it created an asset management unit

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
All the NPLs from the failing banks	Yes, in practice, because it took control of the failing banks	n.a.	23 failed banks between 1999 and 2003	Yes (for example, NPLs from banks administered by the SDIF were designated as state receivables)	December 1999	No	Yes

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Europe
Country: United Kingdom
Name of the AMC: UK Asset Resolution Ltd. (UKAR)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	n.a.	GBP 48.7 billion directly owed to the government (liabilities inherited from the two failing institutions)	No, repaid in full as of May 2019	GBP 116 billion (7.2 percent of GDP)	n.a. but it reported a cumulative profit of circa GBP 8 billion	100 percent, as it assumed all assets at book value from two nationalized failing institutions	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
All assets from two nationalized failing institutions	Yes, in practice as it assumed all assets from the two failing institutions	n.a. Residential loans represented 95 percent of the transferred loans	Closed bank only; two nationalized banks (Bradford & Bingley and Northern Rock)	No	October 2010	No	No, the selling process concluded in October 2021. It remains active without any staff and some remaining assets related to the funded pension schemes transferred from the two failed banks

Note: AMC = asset management company; n.a. = information not available.

Region: Western Hemisphere
Country: Colombia
Name of the AMC: Central de Inversiones SA (CISA)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Initially owned by the deposit insurance agency (FOGAFIN) As of 2007, owned by the Ministry of Finance	USD 0.3 billion	USD 3.2 billion from government securities, tax revenues, and other public resources (for example, deposit insurance fund)	n.a.	COP 5.6 trillion (2000-07) (2.7 percent of GDP)	COP 3.2 trillion Recovery rate: 57.1 percent	100 percent	--

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Loans, trusts, and real estate	Yes	n.a.	Nine state-owned banks and public institutions	No	2000	No	Still in operation, but initial NPL portfolio was wound down in 2007

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Western Hemisphere

Country: Eastern Caribbean Currency Union

Name of the AMC: Eastern Caribbean Asset Management Corporation (ECAMC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the participating governments of the Eastern Caribbean Currency Union	USD 14.8 million government's equity	n.a.	USD 3.37 million (22.8 percent of initial funding)	USD 3.4 million (0.05 percent of regional GDP)	n.a.	Circa 60 percent	Also acting as receiver of financial institutions

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Collateralized commercial loans or transferable securities, with outstanding principal of XCD 300,000 and above	No	n.a.	24 eligible financial institutions As of March 2022, four entities transferred assets	No	July 2017	Initial: five years Revised: eight years	Yes

Note: AMC = asset management company; n.a. = information not available.

Region: Western Hemisphere

Country: El Salvador

Name of the AMC: Fondo de Saneamiento y Fortalecimiento Financiero (FOSAFFI)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the central bank	n.a.	USD 285.7 million with bonds issued by the central bank (USD 257.1 million) and, to a lesser extent, by the Ministry of Finance (USD 28.6 million)	USD 109.0 million (38.2 percent of initial funding)	USD 285.7 million (5.4 percent of GDP)	n.a.	100 percent	The AMC also injected capital in credit institutions

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
All types of loans and some other assets	Yes	n.a.	All banks and credit and savings associations that had been previously nationalized in 1980 and were insolvent by 1990	Yes	December 1990	No	Yes

Note: AMC = asset management company; n.a. = information not available.

Region: Western Hemisphere

Country: Jamaica

Name of the AMC: Financial Sector Adjustment Company (FINSAC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Fully owned by the government	USD 15 million	Total amount n.a. Government-guaranteed bonds, later converted into equity (USD 730 million)	n.a.	JMD 74 billion (29.9 percent of GDP)	JMD 11 billion Recovery rate: 14.9 percent	Case-by-case agreements, but often at banks' book values (that is, 100 percent)	It also acts as resolution authority

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
74 percent commercial loans, with the rest split between credit cards and real state/movable property	No, case-by-case agreement Banks' shareholders had to commit to inject one dollar in fresh capital for every two dollars of NPLs bought	n.a.	All domestic financial institutions on a voluntary basis	No	January 1997	Five to seven years	No, but with some ongoing court cases

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Western Hemisphere

Country: Mexico

Name of the AMC: Fondo Bancario de Protección al Ahorro (FOBAPROA) which launched the Capitalization and Loan Purchase Program

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Owned by the central bank with significant involvement of the Ministry of Finance	n.a. It was designated beneficiary of trusts created by transferring banks	MXN 119 billion Government-guaranteed bonds (10 years maturity, nontradable) and banks' contributions for operating costs	MXN 0.96 billion Transferred in 1999 to a new deposit insurance agency and paid through bank contributions and budgetary resources	MXN 119 billion (4.9 percent of GDP)	n.a.	100 percent Assets were transferred at book value (MXN 119 billion) with loss-sharing arrangements (for between 20-30 percent loss)	It also had other functions: recapitalization, depositor protection, and lender of last resort

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Case-by-case negotiation resulting in the transfer of consumer, mortgage, and corporate loans	Case-by-case agreement	n.a.	11 banks It incentivized private recapitalizations by purchasing two pesos in NPLs for each peso of new capital	No	1995	No	No. In early 1999 the remaining assets were transferred to a new deposit insurance agency

AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

Region: Western Hemisphere
Country: United States of America
Name of the AMC: Resolution Trust Corporation (RTC)

Ownership	Capital Issued	Total Funding and Means of Funding by the AMC	Outstanding Debt	Size of Distressed Assets Transferred	Recoveries and Recovery Rate over Banks' Book Value of Transferred Assets	Average Transfer Price	Wider Mandate?
Temporary federal agency set up in 1989 and managed by the Federal Deposit Insurance Corporation	n.a.	USD 91.3 billion: <ul style="list-style-type: none"> • USD 60 billion from budgetary resources • USD 30.1 billion from government bonds • USD 1.2 billion from banks 	No, but it incurred significant losses from resolving the failing savings and loan associations (S&Ls)	USD 465 billion (8.2 percent of GDP)	USD 395 billion Recovery rate: 85.0 percent	100 percent, as it took control of 747 failing S&Ls, thus assuming all their assets and liabilities at book value	RTC had broad resolution powers over the failing S&Ls

Eligible Loans	Mandatory Transfer	Large Loans Transferred	Participating Financial Institutions	Special Powers	Year of Creation	Predefined Lifespan	Still in Operation?
Both performing loans and NPLs (consumer, mortgage, and real estate loans), as well as securities and other assets	Yes	n.a.	Closed bank only. In total, it resolved 747 S&Ls	No	1989	Seven years (met)	No. RTC ceased to exist in 1995 and remaining assets (USD 7.7 billion) were passed on to the Federal Deposit Insurance Corporation

Note: AMC = asset management company; n.a. = information not available; NPL = nonperforming loan.

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