Failure Resolution and Asset Liquidation: Results of an International Survey of Deposit Insurers

by Rosalind L. Bennett*

A large part of any country's financial safety net[1] is the winding up, or resolution and asset liquidation, of insolvent banks.[2] Even in a healthy economy, banks may become troubled. When a bank is no longer a viable business, the financial safety net should provide for that bank's resolution and asset liquidation. And often a majority of the claims on a failing bank are the deposits, which the deposit insurer is responsible for reimbursing. Thus, the deposit insurer plays a role in the resolution of insolvent banks.

In January 2000, the Federal Deposit Insurance Corporation (FDIC) sent a survey on deposit insurance practices to 73 foreign deposit insurance organizations. These 73 insurance organizations represent all explicit deposit guarantee programs in existence at the beginning of the year 2000 (excluding those in the United States). The survey's questions address the characteristics of deposit insurance systems by focusing on five general areas: (1) risk assessment, (2) funds availability, (3) failure-resolution methods, (4) the role of the receiver, and (5) asset liquidation.

As of June 2000, 37 deposit insurers in 34 locations had completed and returned the survey.[3] The locations of the respondents can be categorized as "advanced economies," "developing economies," or "economies in transition."[4] At year-end 1999, these 34 economies—which account for over one-half of world gross domestic product (GDP)—contained 6,000 banks and over 65 percent of the banking assets in the world. (See Table 1.)

This article reports on the nature and extent of the role played by the 37 survey respondents in winding up failed banks. The article summarizes and discusses only the results of questions that directly address the resolving and liquidating of failed banks.[5] The article does not discuss relationships between the resolving and liquidating of failed banks and other topics in the survey (the supervision of banks, the funding of the deposit insurance scheme, and the transparency of financial reporting).[6]

The article draws upon both the academic literature and the practical experience of the United States with deposit insurance systems. The lessons the FDIC has learned may help other countries design effective policies related to the winding up, or the resolution and asset liquidation, of failed banks. The position of this

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[1] For the purposes of this article, the safety net refers to the deposit insurance system, the resolution of failed banks, and the liquidation of failed-bank assets.

[2] For simplicity, in this article the term "bank" refers to any deposit-taking financial institution.

[3] Some locations have more than one deposit insurer. Not every question was answered by each respondent so there may be less than 37 responses to each question.

[4] The classification of economies into "advanced," "developing," or "in transition" is from International Monetary Fund (2000). In the tables, the second and third categories are combined into one.

[5] Articles summarizing and discussing the risk assessment and funds availability portions of the survey will appear in future issues of the *FDIC Banking Review*.

[6] One example of these kinds of connections: how the appropriate authority will resolve a failed bank is affected by the funding of the deposit insurance scheme.

Table 1
Survey Respondents, Summary Statistics, 1999

Deposit Insurer	Population: Total Population (millions)	Population: Share of World Population (percent)	GDP: Total GDP (US$ millions)	GDP: Share of World GDP (percent)	Banking Industry: Number of Banks	Banking Industry: Banking Assets (US$ billions)	Banking Industry: Share of World Banking Assets (percent)
Advanced Economies							
Austria	8.18	0.14%	$ 208,949	0.69%	844	$ 608.3	1.32%
Belgium	10.15	0.17	245,706	0.81	84	938.1	2.03
Canada	30.49	0.52	612,049	2.03	112	584.6	1.27
France	59.10	1.01	1,410,262	4.67	328	3,506.3	7.59
Germany	82.09	1.40	2,081,202	6.89	2,517	6,877.7	14.89
Greece	10.63	0.18	123,934	0.41	28	82.1	0.18
Isle of Man[a]	0.08	0.00	985	0.00	49	n.a.	n.a.
Italy	57.34	0.98	1,149,958	3.81	363	2,263.2	4.90
Japan	126.51	2.15	4,395,083	14.55	177	7,620.0	16.50
Netherlands	15.81	0.27	384,766	1.27	80	1,328.5	2.88
Portugal	9.96	0.17	107,716	0.36	50	334.2	0.72
Spain	39.42	0.67	562,245	1.86	154	1,470.1	3.18
Sweden	8.86	0.15	226,338	0.75	40	260.1	0.56
Taiwan Province of China	22.00	0.37	362,000	1.20	49	n.a.	n.a.
United Kingdom	58.74	1.00	1,373,612	4.55	302	3,628.3	7.86
Subtotal	**539.36**	**9.18%**	**$13,244,805**	**43.85%**	**5,177**	**>$29,501.5**	**>63.88%**
Developing Economies and Economies in Transition							
Africa							
Nigeria	108.95	1.85	43,286	0.14	81	9.5	0.02
Tanzania	32.79	0.56	8,777	0.03	10	1.3	0.00
Uganda	21.62	0.37	6,349	0.02	21	0.9	0.00
Europe							
Czech Republic	10.28	0.17	56,379	0.19	36	84.5	0.18
Hungary	10.07	0.17	48,355	0.16	46	26.7	0.06
Latvia	2.43	0.04	6,664	0.02	25	3.2	0.01
Lithuania	3.66	0.06	10,454	0.03	11	2.7	0.01
Poland	38.65	0.66	154,146	0.51	87	76.2	0.17
Romania	22.46	0.38	33,750	0.11	18	8.0	0.02
Slovak Republic	5.40	0.09	19,307	0.06	25	15.6	0.03
Turkey	64.39	1.10	188,374	0.62	67	96.2	0.21
Middle East							
Bahrain	0.67	0.01	5,350	0.02	36	8.1	0.02
Oman	2.46	0.04	14,962	0.05	18	9.4	0.02
Western Hemisphere							
Brazil	163.95	2.79	760,345	2.52	208	286.5	0.62
El Salvador	6.15	0.10	12,229	0.04	18	7.6	0.02
Jamaica	2.56	0.04	6,134	0.02	16	4.1	0.01
Mexico	97.37	1.66	474,951	1.57	63	202.7	0.44
Peru	25.23	0.43	57,318	0.19	20	20.4	0.04
Trinidad and Tobago	1.29	0.02	6,998	0.02	17	3.7	0.01
Subtotal	**620.38**	**10.54%**	**$ 1,914,128**	**6.34%**	**823**	**$ 867.3**	**1.88%**
Total	**1,159.74**	**19.72**	**15,158,933**	**50.18**	**6,000**	**>30,368.8**	**>65.77**
United States	**273.13**	**4.65**	**8,708,870**	**28.83**	**8,907**	**7,956.9**	**17.23**
World	**5,879.00**	**100.00%**	**$30,211,993**	**100.00%**	**n.a.**	**$46,177.5**	**100.00%**

Note:

Population—1999 midyear estimates. *Source:* International Monetary Fund (June 2000), *International Financial Statistics*. Taiwan Province of China and Isle of Man statistics from CIA (1999), *World Factbook*.

GDP—1999. *Source:* World Bank, 2000, Development Indicators. Taiwan Province of China and Isle of Man statistics are 1998 estimates from CIA (1999), *World Factbook*.

Banking Industry—Number of banks. *Source:* Thomson Bank Directory (2000), Thomson Financial Publishing. Banking assets as of 1999: International Monetary Fund (June 2000), *International Financial Statistics* (bank assets are summations of lines 20 through 22 in the International Financial Statistics, converted to December 1999 U.S. dollars). World total does not include Afghanistan, Dem. Rep. of Congo, People's Dem. Rep. of Yemen, St. Pierre & Miquelon, and Vietnam. December 1999 data were not available for Djibouti, Greece, Guinea, Republic of Yemen, so data from second-quarter 1998 were used.

[a]British Crown Dependency.

article, however, is that there are no universal best practices or one-size-fits-all policy prescriptions. Among other considerations, differences in the level of transparency of financial reporting, in the effectiveness of supervision, in legal structures, and in the accountability of public officials will determine which design features of the safety net will best fit any one country.

Conceptual Background

A financial safety net has three principal goals: (1) to maintain stability and public confidence in the financial system, (2) to minimize the cost of resolving failed banks but without weakening the financial system, and (3) to have the receiver dispose of the remaining assets as soon as practicable.

When dealing with failed or failing banks, the challenge in achieving the first goal is to do it with the least possible interference with market mechanisms. Resolving failed banks in a manner that undermines market discipline (for example, by covering all deposit and creditor claims) will simply weaken the financial system in the long run by encouraging excessive risk taking. But not resolving failed banks promptly will also undermine the market mechanism—and may, in addition, substantially increase the costs of a resolution.

Accordingly, the financial safety net includes policies on failure resolution, and it is advantageous to make the policies clear to the public. Transparency in the rules governing the resolution of failed banks helps to produce order in the financial system. Clear, specific, and publicly known regulatory policies provide banks and their customers with more information on which to base their decisions. And when depositors and other bank creditors know which claims the deposit insurer will honor quickly, they are unlikely to generate liquidity crises in well-run banks. In other words, policies that reduce the uncertainty of claimants about the amounts they will recover, especially when these policies are accompanied by prompt payment of claims, increase public confidence in the financial system. Unclear regulatory policies—along with poor bankruptcy or receivership laws and the lack of timely failure resolutions—can contribute to and exacerbate financial crises.

The challenge posed by the second goal of any financial safety net (to minimize the cost of a failure resolution without weakening the financial system) lies in the fact that minimizing disruption to the economy and maintaining public confidence in the financial system can be costly. One way of meeting this challenge is to adhere to a least-cost requirement; that is, to evaluate the cost of different failure-resolution techniques and determine which is the least costly to the deposit insurer. If a strict least-cost requirement is in place, regulators are not allowed to weigh secondary damage to the community or to other banks when determining which resolution transaction to use.

The third goal of the safety net applies to those resolution techniques that require some or all assets to remain with the receiver and calls for the receiver to dispose of the remaining assets as soon as is practicable. This goal is consistent with the other two goals. When assets held by the receiver are not returned to the private markets as soon as is practicable, the economy may be disrupted. Inversely, returning assets quickly to the private sector minimizes disruption to the local economy by allowing for quicker payments to the remaining creditors of the failed bank, thereby meeting goal one. In addition, liquidating assets quickly accomplishes goal two by eliminating costs associated with holding the assets, such as servicing costs.

Practice in the United States

In the United States, winding up the affairs of a bank that has failed typically involves two stages. The first stage—the resolution stage—is the process of resolving a failed bank; the second stage is the process of liquidating the assets of the failed bank (the receivership process). The receivership process is used for all resolutions except open-bank assistance.

In the resolution stage of most transactions the FDIC values the assets of the failed bank, solicits bids for the sale of the bank, and evaluates the bids to determine which one is the least costly to the insurance fund.[7] If the least costly bid involves the acquisition by a bank of some or all of the assets and liabilities of the failed bank, the FDIC works with the acquiring bank until the end of the closing process. If the least costly bid does not involve an acquirer, the FDIC ensures timely payment to insured depositors and liquidates the assets over time.

[7] Typically, the FDIC places similar assets in pools and allows bidders to bid on the asset pools. Bidders have the option to bid on some or all of the asset pools and on some or all of the deposits of the failed bank.

During the second stage—the receivership process[8]—the FDIC liquidates any remaining assets of the failed bank and distributes the proceeds, first to the uninsured depositors, then to the general creditors, and finally to the shareholders.[9]

When and How a Bank is Closed and Resolved

Before the winding-up process, the bank must first be closed. This section discusses three issues surrounding bank closure: the rules for closure, the timing of closure, and who has the authority to close banks. After the bank is closed, and before the winding-up process can begin, a receiver must be appointed for the failed bank. This section also discusses many aspects of the appointment of a receiver, such as who appoints the receiver and who usually acts as the receiver. The last part of the section discusses the differences between the receivership process for a failed bank, as conducted in the United States, and the corporate bankruptcy process.

Bank Closure Rules

Banks are typically closed for one of two reasons: insolvency or illiquidity. Insolvency occurs when the value of the assets held by a bank is less than the value of the liabilities held. Illiquidity occurs when a bank is not able to meet its current obligations as they come due.

Insolvency can be measured by either book value or market value. Accounting conventions usually require that banks report assets and liabilities at book value, and the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) requires regulatory agencies in the United States to close banks before they reach book-value insolvency.[10] The reason for this closing rule is that the market value of the assets of a bank is uncertain and in troubled banks is typically below the book value. Closing a bank before it reaches book-value insolvency allows for this uncertainty and helps limit the losses incurred by the deposit insurance funds.

Illiquidity may arise because banks issue demand deposits—obligations due upon demand—to fund lending activity, and are therefore susceptible to bank runs. When depositors know or believe that a bank is in danger of failing, they may attempt to withdraw their deposits as quickly as possible, causing a liquidity crisis at the bank.

A bank can be illiquid without being insolvent. In the United States, primarily because of deposit insurance and the central bank's ability to provide liquidity, banks usually fail because they are insolvent rather than because they are illiquid. In most of the cases when a U.S. bank was closed for illiquidity, the liquidity problem had been caused by a belief that the bank was insolvent, even though the insolvency had not yet been realized in the accounting statements.

In contrast, the European Union (EU) directive on deposit-guarantee schemes (94/19/EEC) is concerned with illiquid—not necessarily insolvent—banks. The directive requires the activation of the deposit-guarantee scheme when deposits become unavailable. Although the EU also has adopted directives 89/647/EEC and 89/299/EEC that outline capital standards consistent with the Basel capital standards, no EU directive currently requires the closure of an insolvent bank.[11]

The responses to the survey of deposit insurers indicate that in practice a majority of respondents close banks when they become insolvent. Of the 37 deposit insurers that had responded as of June 2000, over two-thirds answered "Yes" to the following survey question: *Are troubled insured depository institutions routinely closed and liquidated or otherwise reorganized when equity capital is exhausted?* This proportion was roughly similar for both groups of deposit insurers, those in advanced economies and those in developing economies and economies in transition. (See Table 2.)

Timing of Bank Closure

When the resolution of a failed bank is performed quickly and smoothly, benefits accrue to the economy and to the financial system. The swift resolution of a small bank minimizes disruption to the local community. The swift resolution of a large bank is especially critical because the failure of the bank may affect the national economy.

[8] The receivership process is similar to the bankruptcy process used in countries other than the United States. However, as discussed later in the article, the receivership process differs from the bankruptcy process in important ways.

[9] In the resolution stage, the FDIC provides timely payment to the insured depositors; then, during the receivership process, the FDIC stands in the place of the insured depositors. Claimants on the receivership (including the FDIC itself, as the receiver that has administrative expenses and as the stand-in for the insured depositors) receive payment according to their assigned priority, as dictated by the Omnibus Budget Reconciliation Act of 1993; the relevant provisions are commonly known as National Depositor Preference. The priority is as follows: administrative expenses of the receiver, secured claims, domestic deposits (insured and uninsured), foreign deposits and other general creditor claims, subordinated creditor claims, and shareholders. For more detail on National Depositor Preference, see Marino and Bennett (1999).

[10] The prompt corrective action provisions of FDICIA require the regulatory agency to close a bank that has a ratio of tangible equity to assets that is less than or equal to 2 percent.

[11] For more information on financial developments in the EU, see Murphy (2000).

Table 2
Bank Closures

Deposit Insurer	Are troubled depository institutions routinely closed and liquidated or otherwise reorganized when equity capital is exhausted?		Have there been examples where equity-insolvent, insured depository institutions have been allowed to operate for extended periods?	
	Yes	No	Yes	No
Advanced Economies				
Austria (AAR)		X		X
Austria (AABB)		X		X
Belgium		X		X
Canada	X		X	
France	X			
Germany (EdB)	X			X
Germany (E)	X			X
Greece	X			X
Isle of Man[a]		X		X
Italy (IDPF)	X			X
Italy (DPFCB)	X			X
Japan	X		X	
Netherlands		X		X
Portugal		X		
Spain	X			X
Sweden	X			
Taiwan Province of China		X	X	
United Kingdom	X			
Subtotal	**11**	**7**	**3**	**11**
Developing Economies and Economies in Transition				
Africa				
Nigeria	X		X	
Tanzania	X		X	
Uganda	X		X	
Europe				
Czech Republic	X			X
Hungary	X			
Latvia		X		
Lithuania	X		X	
Poland		X		X
Romania	X			X
Slovak Republic	X			X
Turkey	X			
Middle East				
Bahrain	X			X
Oman		X		X
Western Hemisphere				
Brazil		X		
El Salvador	X		X	
Jamaica	X		X	
Mexico		X		
Peru	X			X
Trinidad and Tobago	X		X	
Subtotal	**14**	**5**	**7**	**7**
Total	**25**	**12**	**10**	**18**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000). Deposit insurers without an "X" in either the Yes or No column did not answer the question on the survey or did not provide an answer that was easily categorized as yes or no.

[a]British Crown Dependency.

AAR = Association of Austrian Raiffesenbanks

AABB = Association of Austrian Banks and Bankers

EdB = Entschadigungseinrichtung deutscher Banken

E = Einlagensicherungs

IDPF = Interbank Deposit Protection Fund

DPFCB = Deposit Protection Fund for Co-operative Banks

Banks typically fail after a gradual deterioration rather than after a single adverse event. Thus, the timing of the closure of a bank directly affects the costs to the deposit insurer: generally the longer the condition of a bank deteriorates, the higher the resolution cost to the deposit insurer. As a bank approaches failure, uninsured, unsecured liabilities will either flee or attempt to become insured or secured.[12] In addition, managers of the bank will have an incentive to take on more risk in an attempt to earn sufficient returns to save the bank from failure. Usually, however, these actions result not in high returns to the bank but in higher losses to the deposit insurer.

In the United States, FDICIA contains prompt corrective action provisions that formalize the timing of regulatory actions and closure on the basis of capital ratios. As the capital of a bank deteriorates, prompt corrective action requires bank regulators to initiate progressively more-stringent restrictions on the activities of the bank. Thus, prompt corrective action requires the bank regulators to intervene early; and, by formalizing the process, prompt corrective action significantly reduces the potential for regulators to apply forbearance.[13] Formalizing early intervention may also limit excessive risk taking by making bank managers aware of the consequences of their actions.[14]

Outside the United States, formal early-intervention rules are not widespread, but in practice most survey respondents generally do intervene when a bank is insolvent. Eighteen of the 28 respondents replied "No" to the following survey question: *Have there been examples where equity-insolvent, insured depository institutions have been allowed to operate for extended periods?* (See Table 2.) An insolvent bank is more likely to continue to operate in developing economies or economies in transition: one-half of the respondents in this group (7 of 14) have allowed insolvent banks to operate, whereas only 3 of the 14 deposit insurers in advanced economies have done so.

Authority to Close a Bank

How long an insolvent bank is allowed to linger may be influenced by who has the authority to close a bank. Insolvent banks may be more likely to linger if the authority to close a bank does not lie with the entity that is accountable for the costs of forbearance. The costs of forbearance are borne by the creditors of the impending receivership—including the deposit insurer (as explained in note 9). In a government-sponsored deposit insurance system, the ultimate cost of forbearance may be borne by the taxpayer.

In the United States, the entity that charters the bank has the authority to revoke the charter—essentially, to close the bank.[15] After closing the insured bank, the chartering agency usually appoints the FDIC as receiver (see next subsection). Alternatively, in some circumstances the FDIC itself has the authority to close a bank, or terminate deposit insurance.[16]

Thirty-seven survey respondents answered the following question: *Who can declare a commercial bank legally insolvent?* Thirty-five of the 37 specified that a government agency (including the court system) has the authority to declare a bank insolvent. In the remaining two economies (Canada and Bahrain), a government agency can declare a bank insolvent or a private party—specifically the creditors of the bank—can petition the court for a winding-up order.

Appointment of a Receiver

Once the authorized entity closes a bank, usually the bank requires a receiver. The duties of a receiver for a bank are to market its assets, sell them, and distribute the proceeds, after expenses, to the creditors of the bank. As mentioned in the previous subsection, in the United States the chartering authority closes the bank and appoints the FDIC as receiver. Thus, the FDIC acts as both the deposit insurer and the receiver of failed banks. Having one agency discharge both these functions simplifies procedures, eliminates the duplication of records, and places the responsibility of asset liquidation on the largest creditor who has an incentive to obtain the maximum possible recovery.[17]

[12] For evidence on the shifting of liabilities in large banks, see Marino and Bennett (1999).

[13] When regulators refrain from taking actions that are normally required by statute, they are adopting a policy of forbearance. The reasons behind using forbearance can be complex. In the United States, regulators have applied forbearance successfully in the past to avoid a financial crisis. Forbearance, however, can create an opportunity for the troubled bank to deteriorate further and may therefore increase resolution costs.

[14] For a discussion of early intervention, see European Shadow Financial Regulatory Committee (1998).

[15] To engage in the business of deposit-taking in the United States, organizations must obtain a charter. The chartering authority for state-chartered banks is usually the state banking department; for national banks, the Office of the Comptroller of the Currency (OCC); and for federal savings institutions, the Office of Thrift Supervision (OTS).

[16] FDICIA gave the FDIC the authority to close any bank that is considered to be critically undercapitalized and that does not have a plan to restore capital to an adequate level. FDICIA also gave the FDIC authority to close any bank that (1) has a substantial dissipation of assets because of the violation of law, (2) is operating in an unsafe and unsound manner, (3) is engaging in a willful violation of a cease-and-desist order, (4) is concealing records, or (5) is no longer insured. Twice the FDIC has closed banks and appointed itself receiver (see note 18). Section 8 of the Federal Deposit Insurance Act provides details of the conditions under which the Board of Directors of the FDIC can terminate deposit insurance.

[17] Chapter 8 of FDIC (1998a) and Chapter 7 of FDIC (1998b) discuss the role of the FDIC as receiver in more detail.

The FDIC not only has the authority to act as a receiver but also, under FDICIA, has the authority to appoint itself as receiver.[18] That authority was given to the FDIC to make it independent of the chartering authorities and able to act in a timely fashion to protect the insurance fund. The deposit insurer has an incentive to protect the insurance fund and therefore might act more swiftly than the supervisory authorities that are not directly accountable for protecting the fund.

As receiver, the FDIC is responsible for settling the affairs of the closed bank or thrift—including (as mentioned above) collecting on the assets of the failed bank and, from the proceeds, satisfying the creditor claims against the receivership. When the FDIC is appointed receiver, it succeeds to the rights, powers, and privileges of the bank. It may collect all obligations and money due to the bank, preserve and liquidate its assets and property, and perform any other function of the bank consistent with being a receiver.

Some of the powers of the FDIC as a receiver of failed banks are similar to those of a bankruptcy trustee, but the FDIC has additional powers that make its role as a receiver critically different from that of a bankruptcy trustee. These additional powers are discussed in the next subsection.

Thirty-seven deposit insurers responded to the following survey question: *Who generally appoints a receiver?* Only 13 of the 37 respondents have a structure similar to that in the United States. These 13 respondents indicated only the central bank, the ministry of finance, or the supervisory authority appoints the receiver. The court appoints a receiver in most of the remaining locations, either alone or in conjunction with the central bank, the ministry of finance, and/or the deposit insurer. In two places (Mexico and Romania) the deposit insurer is solely responsible for appointing a receiver. (See Table 3.)[19]

The survey responses indicate that the role of the FDIC as both insurer and receiver is uncommon. Many countries do not give their deposit insurers the authority to act as receiver. Only 10 of the 36 respondents answered "Yes" to the following survey question: *Does the deposit insurer have the authority to act as the receiver of a failed depository institution?* Of the 10, only 3 operate in advanced economies. (See Table 3.)

The deposit insurer typically does not act as the receiver; in most places a private party acts as receiver, either alone or in conjunction with a government agency other than the deposit insurer. Thirty deposit insurers responded to the following survey question: *If the deposit insurer is not the receiver, is another government agency or a private party the receiver?* Of these 30 respondents, 21 indicated that only a private party is the receiver, 5 indicated a combination of a private party and a government agency, and only 4 indicated a government agency acts alone as receiver.

The deposit insurer rarely has the authority to appoint itself receiver. Of the ten deposit insurers that do have the authority to act as receiver, only three answered "Yes" to the following survey question: *Does the deposit insurer have the authority to appoint itself receiver of the failed depository institution?* Two of these three respondents (Mexico and Uganda) are in developing economies, and one (Canada) is in an advanced economy. (See Table 3.)

Bankruptcy or Receivership Process

As mentioned above, in the United States the liquidation system that is used to resolve a bank differs from bankruptcy proceedings for other types of business entities. The liquidation system is governed by receivership laws that seek to ensure the speedy resolution of banks and that therefore allow the receiver broader powers than the bankruptcy laws allow.

There are many reasons for the FDIC's special powers as a receiver. One is to ensure common standards and uniform expectations among creditors, shareholders, and the public. Another is to allow for prompt reimbursement of insured depositors and a speedy liquidation process. The special powers conferred on the FDIC allow it to expedite the liquidation process for banks and thus maintain confidence in the banking system; for example, the special powers do not allow any of the creditors of the bank to delay closure, although they do have the right to sue the receivership after the closure of the bank. The special powers also allow the FDIC to protect the insurance fund by minimizing receivership costs.

FDIC (1998a) outlines five essential differences between receivership and bankruptcy. These differences involve (1) the claims determination process, (2) contract repudiation, (3) stay of litigation, (4) avoidance powers, and (5) special defenses.

[18] The FDIC has appointed itself receiver twice since 1991: in 1994 and 1999. In 1994 the FDIC closed and appointed itself receiver of the Meriden Trust & Safe Deposit Company in Meriden, Connecticut. For more details, see FDIC (1998a), 181. In 1999 the FDIC closed and appointed itself receiver of Victory State Bank in Columbia, South Carolina.

[19] On Table 3 and many of the subsequent tables, the total number of respondents differs from the sum of the total number of responses in each column because some deposit insurers gave more than one answer.

Table 3
Receivership Authority

Deposit Insurer	Who generally appoints a receiver?[a] Court	Central Bank, Ministry of Finance, or Supervisory Authority	Deposit Insurer	Other	Does the deposit insurer have the authority to act as the receiver of a failed depository institution? Yes	No	Does the deposit insurer have the authority to appoint itself receiver of a failed depository institution? Yes	No
Advanced Economies								
Austria (AAR)		X				X		X
Austria (AABB)	X					X		X
Belgium	X					X		X
Canada	X	X			X		X	
France		X				X		X
Germany (EdB)	X					X		X
Germany (E)	X					X		X
Greece		X				X		X
Isle of Man[b]	X					X		X
Italy (IDPF)		X				X		X
Italy (DPFCB)		X				X		X
Japan	X							
Netherlands	X		X			X		X
Portugal				X		X		X
Spain	X				X			X
Sweden	X	X				X		X
Taiwan Province of China		X			X			X
United Kingdom				X		X		X
Subtotal	**10**	**8**	**1**	**2**	**3**	**14**	**1**	**16**
Developing Economies and Economies in Transition								
Africa								
Nigeria		X			X			X
Tanzania		X			X			X
Uganda		X			X		X	
Europe								
Czech Republic	X					X		X
Hungary	X					X		X
Latvia	X					X		X
Lithuania	X	X				X		X
Poland	X					X		X
Romania			X			X		X
Slovak Republic	X					X		X
Turkey		X			X			X
Middle East								
Bahrain	X	X		X		X		X
Oman		X				X		X
Western Hemisphere								
Brazil		X				X		X
El Salvador	X					X		X
Jamaica	X				X			X
Mexico			X		X		X	
Peru		X				X		X
Trinidad and Tobago	X				X			X
Subtotal	**10**	**9**	**2**	**1**	**7**	**12**	**2**	**17**
Total	**20**	**17**	**3**	**3**	**10**	**26**	**3**	**33**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
[a]If entities work together to appoint a receiver, an "X" will appear in more than one column.
[b]British Crown Dependency.
AAR = Association of Austrian Raiffesenbanks
AABB = Association of Austrian Banks and Bankers
EdB = Entschadigungseinrichtung deutscher Banken
E = Einlagensicherungs
IDPF = Interbank Deposit Protection Fund
DPFCB = Deposit Protection Fund for Co-operative Banks

Claims determination process. The FDIC as receiver has the power to allow or disallow claims. If the receiver disallows a claim, the holder has the right to litigate the claim in federal court. In contrast, although a bankruptcy trustee can object to a claim, only the bankruptcy court can allow or disallow claims.

Contract repudiation. The FDIC as receiver has the power, within a reasonable period, to repudiate contracts it deems burdensome. Banks often enter contracts that, at the time of receivership, are burdensome to the receiver in terms of duration or cost. In contrast, a bankruptcy trustee can repudiate only contracts that the parties have not fully executed.

Stay of litigation. After the FDIC has been appointed receiver, it is responsible for any pending litigation against the bank but has the option of requesting a stay of legal proceedings of up to 90 days.

Avoidance powers. Both the FDIC as receiver and a bankruptcy trustee have avoidance powers, or the power to pursue fraudulent transfers and recover property. However, the FDIC as receiver can pursue transfers made five years before or after the date of the receiver's appointment.

Special defenses. To defeat claims, a bankruptcy trustee can use only defenses that are available to the debtor to defeat claims. In contrast, the FDIC as receiver has special statutory defenses it can use. For example, improperly documented agreements are not binding on the receiver: the receiver relies solely on the records of the failed bank to evaluate the assets and liabilities accurately. Being able to disallow improperly documented agreements contributes to the efficiency and cost effectiveness of failure resolutions.

Another important difference between the receivership process and bankruptcy proceedings for other types of business entities is that the FDIC is not subject to the direction or supervision of any other agency or department of the United States in the operation of the receivership. The court does not supervise the administration of the assets and liabilities of the failed bank and cannot review the decisions of the receiver except under limited circumstances.

The granting of special authority to the FDIC as receiver is based on history. Before the FDIC was created, the Office of the Comptroller of the Currency (OCC) supervised the liquidation of national banks, and state banks were liquidated according to state laws, which varied from state to state. Even so, most liquidations of state banks were handled like any other business insolvency. During the 1933 banking crisis in the United States there was a shortage of experienced receivers. In addition, there were concerns that the receivership appointments had been made as political favors. Such appointments were desirable because receivers earned large commissions and therefore had an incentive to extend the receivership work. On average, it took six years to liquidate the assets of a failed bank and to pay depositors.[20] (Depositors were treated like any other creditors in a bankruptcy, receiving funds after the bank's assets had been liquidated.) When Congress created the FDIC, it believed that making the largest creditor (the FDIC) responsible for liquidating the assets of failed banks would simplify procedures. After all, it is in the best interest of the largest creditor to obtain the maximum recovery as quickly as possible.

Outside the United States, most failed banks go through a regular corporate bankruptcy process. Approximately 62 percent of the 37 respondents answered "Yes" to the following survey question: *Does a failed bank go through the regular corporate bankruptcy process?* (See Table 4.) The proportions in both advanced economies and developing economies and economies in transition were roughly similar.

The Least-Cost Requirement and Exceptions to It

The least-cost resolution refers to the resolution method that minimizes the present value of net losses incurred by the deposit insurer, regardless of other factors. Without a least-cost requirement, the choice among resolution methods would involve trade-offs among minimizing the cost of the resolution transaction, imposing market discipline, and limiting risk to the banking sector as a whole. Requiring the deposit insurer to resolve banks in the least costly manner imposes market discipline inasmuch as the deposit insurer must structure resolutions that impose losses on uninsured and unsecured creditors.

However, policy considerations other than cost to the deposit insurer may be important to the deposit insurer. For example, the deposit insurer may be concerned about the systemwide implications of the resolution of a particular bank, especially one that is very large and has many interbank relationships. When such a bank fails, a resolution structure that controls risk to other banks in the financial system may not be

[20] FDIC (1998b), 64.

Table 4
Bankruptcy Process

Deposit Insurer	Does a failed bank go through the regular corporate bankruptcy process? Yes	No
Advanced Economies		
Austria (AAR)	X	
Austria (AABB)	X	
Belgium	X	
Canada		X
France	X	
Germany (EdB)	X	
Germany (E)	X	
Greece		X
Isle of Man[a]	X	
Italy (IDPF)		X
Italy (DPFCB)	X	
Japan		X
Netherlands		X
Portugal		X
Spain	X	
Sweden	X	
Taiwan Province of China	X	
United Kingdom	X	
Subtotal	12	6
Developing Economies and Economies in Transition		
Africa		
Nigeria		X
Tanzania		X
Uganda	X	
Europe		
Czech Republic		X
Hungary		X
Latvia		X
Lithuania	X	
Poland		X
Romania	X	
Slovak Republic	X	
Turkey	X	
Middle East		
Bahrain		X
Oman	X	
Western Hemisphere		
Brazil		X
El Salvador	X	
Jamaica	X	
Mexico	X	
Peru	X	
Trinidad and Tobago	X	
Subtotal	11	8
Total	23	14

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
[a]British Crown Dependency.
AAR = Association of Austrian Raiffesenbanks
AABB = Association of Austrian Banks and Bankers
EdB = Entschadigungseinrichtung deutscher Banken
E = Einlagensicherungs
IDPF = Interbank Deposit Protection Fund
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the least costly to the deposit insurer. A least-cost requirement that has enough flexibility to allow the deposit insurer to deal with systemic risks may be advantageous.

In the United States at the beginning of the 1980s, when the FDIC determined the structure of a resolution, it considered a variety of policy issues and objectives. The four primary ones were (1) to maintain public confidence and stability in the U.S. banking system, (2) to encourage market discipline so as to prevent excessive risk taking, (3) to resolve failed banks in a timely and cost-effective manner, and (4) to be equitable and consistent in using resolution methods. There were also certain secondary objectives, one of which was the desire to minimize the FDIC's role in owning, financing, and managing banks and their assets. After passage of FDICIA, which mandated the least-cost requirement, all policy objectives became secondary to cost considerations in determining the resolution method.[21]

To implement FDICIA, the FDIC evaluates all bids for failed banks solely on the basis of cost, not factoring into the decision any other policy considerations. The FDIC computes the cost of a resolution on a present-value basis, using a realistic discount rate. As discussed later in this section, the one exception to the least-cost test is the "systemic-risk" exception.

Outside the United States, a least-cost requirement like the one imposed on the FDIC is far from universal. Nineteen of the 35 respondents answered "Yes" to the following survey question: *Is the deposit insurer required to resolve failed or failing insured depository institutions in a manner that is least costly to the deposit insurer?* (See Table 5.) Of the respondents in advanced economies, fewer than 50 percent have a least-cost requirement; in developing economies and economies in transition, approximately 63 percent have one.

In the United States, as already mentioned, FDICIA provided for one exception to the least-cost requirement, namely, the systemic-risk exception. Before the FDIC can invoke this exception, two-thirds of the FDIC Board of

[21] Before passage of FDICIA, resolution transactions were subject to a different type of cost test: the FDIC could resolve a bank using any transaction that was less costly than a deposit payoff, except that, if a bank was deemed to be essential to the provision of adequate banking services in the community, the FDIC could vary from the cost test and use a transaction that was more costly than a deposit payoff. Cost was always an important element of the decision on resolution structure, but other considerations (for example, avoiding disruption to the local community or passing more assets to the acquirer) sometimes influenced the choice. Under FDICIA, the FDIC no longer has that flexibility but is required to choose the least costly resolution transaction (except that a "systemic-risk" exception is possible, as discussed below).

Table 5
Least-Cost Test and Exceptions

Deposit Insurer	Is the deposit insurer required to resolve failed or failing insured depository institutions in a manner that is least costly to the deposit insurer?		If yes, under what exceptions, if any, can the deposit insurer deviate from the least-cost approach?			Does either the size of an institution or the fact that it is owned by a governmental entity influence the decision whether and how an insured bank should be resolved?	
	Yes	No	None	Systemic Risk	Other	Yes	No
Advanced Economies							
Austria (AAR)		X					X
Austria (AABB)		X					X
Belgium	X		X				X
Canada	X			X		X	
France	X				X		X
Germany (EdB)		X					X
Germany (E)		X					X
Greece		X				X	
Isle of Man[a]		X					X
Italy (IDPF)	X				X	X	
Italy (DPFCB)	X		X				X
Japan	X				X		X
Netherlands						X	
Portugal		X					X
Spain		X					X
Sweden		X				X	
Taiwan Province of China	X		X			X	
United Kingdom						X	
Subtotal	**7**	**9**	**3**	**1**	**3**	**7**	**11**
Developing Economies and Economies in Transition							
Africa							
Nigeria	X				X	X	
Tanzania	X				X	X	
Uganda	X		X				X
Europe							
Czech Republic		X				X	
Hungary	X		X				X
Latvia		X				X	
Lithuania		X				X	
Poland	X		X				X
Romania		X					X
Slovak Republic		X					X
Turkey	X		X				X
Middle East							
Bahrain		X				X	
Oman	X				X	X	
Western Hemisphere							
Brazil	X				X		X
El Salvador	X			X		X	
Jamaica	X			X		X	
Mexico	X		X			X	
Peru	X			X		X	
Trinidad and Tobago		X					X
Subtotal	**12**	**7**	**5**	**3**	**4**	**11**	**8**
Total	19	16	8	4	7	18	19

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
[a]British Crown Dependency.
AAR = Association of Austrian Raiffesenbanks
AABB = Association of Austrian Banks and Bankers
EdB = Entschadigungseinrichtung deutscher Banken
E = Einlagensicherungs
IDPF = Interbank Deposit Protection Fund
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Directors[22] and two-thirds of the Board of Governors of the Federal Reserve System must agree that complying with the least-cost test would have serious adverse effects on economic conditions or financial stability; the two boards forward a written recommendation to the Secretary of the U.S. Treasury; and the Secretary, in consultation with the president of the United States, must agree. Since its creation in FDICIA, the systemic-risk exception has never been used. In imposing this rather stringent requirement, FDICIA clearly outlined the FDIC's options in resolving large banks.

The European Union directives on banking have not yet specifically addressed limits on the bailout of large banks that are considered "too big to fail." In fact, as Murphy (2000) points out, under the current system a large European bank that has a home office in a small country would probably be considered too big to fail. This decision could be made because the cost to the small country of resolving the large bank might be prohibitive.

In locations outside the United States, some flexibility is built into the least-cost requirement. Respondents who have a least-cost requirement answered the following survey question: *Under what exceptions, if any, can the deposit insurer deviate from the least-cost approach?* Of the 19 respondents to the question, 8 said the least-cost requirement cannot be violated for any reason; 4 said it can be violated for reasons of systemic risk; and 7 mentioned other reasons for violating it, including "political interference," "social connections," and "size." (See Table 5.)

In many economies, size or government ownership does affect the nature of the resolution of banks. Eighteen of the 37 respondents answered "Yes" to the following survey question: *Does either the size of an institution or the fact that it is owned by a governmental entity influence the decision whether and how an insured bank should be resolved?* (See Table 5.) Size or government ownership is more likely to influence the resolution decisions in developing economies and economies in transition than in advanced economies (58 percent and 39 percent, respectively).

Types of Resolution

There are two basic types of resolution transactions: open-bank transactions and closed-bank transactions. Closed-bank transactions, in turn, are of two kinds: (1) purchase-and-assumption transactions and (2) deposit payoffs. Another type of resolution is a bridge bank, which is a temporary banking structure that the FDIC controls until it finds a permanent resolution. Bridge banks are not used very often, inside or outside the United States, but in some circumstances they may be useful.

Open-Bank Assistance

In an open-bank assistance (OBA) transaction, the deposit insurer provides financial assistance to the bank while the bank remains open. The assistance can take the form of loans, asset purchases, or a note or cash to restore capital to a positive level; private investors will provide additional capital to restore the bank to an adequate capital position. Consequently, OBA transactions usually require the shareholders to dilute their ownership interests significantly; however, their interests may retain some value, so they could benefit from the government assistance.

The primary advantage of open-bank assistance is that it is least disruptive to the relationships between the bank and its customers. Another advantage is that most of the bank's assets remain in the private sector. Both of these advantages may be particularly important for averting a widespread financial crisis.

Open-bank assistance also has a number of disadvantages. First, it can increase the amount of moral hazard and decrease market discipline within the financial system. Moral hazard may increase because, according to general belief, if a bank thinks it will be bailed out when it gets into trouble, it will take on more risk than if the assistance were not available. Market discipline will be eroded because customers with uninsured and unsecured claims are protected, and shareholders may be partially protected. A second disadvantage is that OBA transactions raise the fairness issue: weak banks are allowed to remain open with government assistance and compete with banks that are not given assistance. Finally, OBA transactions can prove to be somewhat more costly to the deposit insurer: there may be recurring losses, and the process of preparing proposals and completing assistance transactions can be long and difficult.[23]

[22] The Board of Directors of the FDIC is composed of the Comptroller of the Currency, the Director of the Office of Thrift Supervision, and three members appointed by the president of the United States and confirmed by the Senate. One of the appointed members of the Board must have experience supervising state banks. For more detail about the Board of Directors of the FDIC, see Section 2 of the Federal Deposit Insurance Act.

[23] Recurring losses characterized the case of First City Bancorporation. In 1988 the FDIC provided open-bank assistance to resolve the failure of 59 branches of First City, but the bank continued to incur losses. Finally, in 1992, the FDIC used a closed-bank transaction to resolve the bank.

Originally the FDIC provided open-bank assistance to banks that were considered essential to the community. Typically the FDIC would restore capital to a positive level by providing the distressed bank with a cash contribution, an FDIC note, or a loan, and private investors would provide additional capital to restore the bank to an adequate capital position. Because of the restrictions imposed by FDICIA, the FDIC no longer commonly uses OBA transactions. Closed-bank resolutions usually have a cost advantage over open-bank transactions. In a closed-bank transaction, costs are reduced because contingent liabilities are eliminated, burdensome contracts can be terminated, and troublesome assets can be left in the receivership.

Many deposit insurers have the authority to provide open-bank assistance. Of 35 survey respondents, 23 answered "Yes" to the following question: *Do you have the legal authority to provide financial assistance to an operating insured depository institution (open-bank assistance), either as a stand-alone entity or to facilitate an open-bank merger with a healthy insured depository institution?* (See Table 6.) Approximately one-half of the deposit insurers that said "Yes" indicated they have provided financial assistance to an operating bank in the last ten years.

Closed-Bank Resolutions

Closed-bank resolutions—purchase-and-assumption transactions and deposit payoffs—have the advantage of not allowing the problems in the bank to recur. Another advantage is that they are transparent. Deposit payoffs, however, are typically more disruptive to customers of the bank and perhaps the local economy. In purchase-and-assumption transactions, in contrast, there are ways of minimizing the disruption. For example, in the United States, when a bank is resolved by a purchase-and-assumption transaction, the chartering agency usually closes the bank on a Friday and the new bank reopens on Monday. The only change visible to most of the customers of the bank is a change in the name of the bank.

Purchase-and-assumption transactions. A purchase-and-assumption (P&A) transaction is a closed-bank transaction in which a healthy bank purchases some or all of the assets of a failed bank and assumes some or all of the liabilities.[24] The acquirer usually receives assistance from the deposit insurer to complete the transaction. As part of the P&A transaction, the acquiring bank usually pays a premium to the deposit insurer for the deposits it acquires; the premium decreases the total resolution cost to the insurer. The reason the acquirer pays this premium is that the deposit base has value in terms of the established customer relationships, usually referred to as franchise value.[25]

A P&A transaction has some of the advantages of an open-bank assistance transaction while eliminating some of the disadvantages. Like open-bank assistance, a purchase-and-assumption transaction is not disruptive to the customers of the bank. In addition, because most of the assets of the failed bank are transferred to the acquiring bank, they are kept in the private sector.[26] A P&A transaction can maintain market discipline to differing degrees, depending on the structure of the transaction. At the very least, shareholders will lose all of their investment.[27] If all deposits are not transferred to the acquiring bank, uninsured depositors may also incur a loss. However, if uninsured deposits are transferred to the acquiring bank as part of a least-cost transaction, they will be fully reimbursed even though they are uninsured. This transfer is more likely to occur when uninsured deposits are a relatively small portion of the failed bank's total deposits.

Many deposit insurers outside the United States have the authority to use a P&A transaction. Twenty of the 30 respondents answered "Yes" to the following survey question: *Do you have the legal authority to use a P&A transaction in handling failed or failing depository institutions?* (See Table 6.) Ten of these respondents have used a purchase-and-assumption transaction in the last ten years.

Deposit payoffs. In a deposit payoff, the appropriate authority closes the bank, and then the deposit insurer pays all of the failed bank's depositors the full amount of their insured deposits. No assets or liabilities are assumed by another bank; the receiver is responsible for liquidating the assets and paying off the claimants. A deposit payoff may be disruptive to the local community because the depositors are paid

[24] In the United States, banks that are interested in acquiring failed banks must have approval from their primary regulator and must meet the bid criteria established by the FDIC. The FDIC shares a list of eligible bidders with the other regulatory agencies and contacts potential bidders four or five days before the bank closing.

[25] For more detail on the types of P&A transactions the FDIC has used, see FDIC (1998b), chap. 3.

[26] Typically the acquirer will take the higher-quality assets and leave the distressed assets, such as nonperforming loans, in the receivership (see discussion of asset liquidation below).

[27] In the rare case when receivership proceeds remain after all the other claimants are paid in full, shareholders may recover some of their investment.

Table 6
Resolution Methods

Deposit Insurer	Open-Bank Assistance		Purchase and Assumption		Deposit Payoff		Bridge Bank	
	Has authority	Has used authority in past 10 years	Has authority	Has used authority in past 10 years	Has authority	Has used authority in past 10 years	Has authority	Has ever used the authority
Advanced Economies								
Austria (AAR)	X							
Austria (AABB)	X							
Belgium	X		X	X	X	X		
Canada	X	X	X	X	X	X	X	
France	X		X		X		X	
Germany (EdB)					X			
Germany (E)	X		X		X	X	X	
Greece					X	X		
Isle of Man[a]					X	X		
Italy (IDPF)	X	X	X	X	X	X		
Italy (DPFCB)	X	X	X	X	X	X		
Japan	X	X	X		X		X	
Netherlands					X			
Portugal					X			
Spain	X	X	X	X	X	X		
Sweden					X			
Taiwan Province of China	X	X	X	X	X			
United Kingdom								
Subtotal	**11**	**6**	**9**	**6**	**15**	**8**	**4**	**0**
Developing Economies and Economies in Transition								
Africa								
Nigeria	X	X	X	X	X	X		
Tanzania	X		X		X			
Uganda	X	X	X	X	X	X		
Europe								
Czech Republic					X	X		
Hungary	X	X	X		X	X	X	
Latvia								
Lithuania					X	X		
Poland	X	X			X	X		
Romania					X	X		
Slovak Republic				X	X	X		
Turkey	X	X	X		X	X	X	
Middle East								
Bahrain								
Oman	X		X		X			
Western Hemisphere								
Brazil								
El Salvador	X		X		X			
Jamaica	X		X		X		X	
Mexico	X	X	X	X	X		X	X
Peru	X		X		X	X		
Trinidad and Tobago	X		X		X	X		
Subtotal	**12**	**6**	**11**	**4**	**16**	**11**	**4**	**1**
Total	**23**	**12**	**20**	**10**	**31**	**19**	**8**	**1**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
[a]British Crown Dependency.
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AABB = Association of Austrian Banks and Bankers
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E = Einlagensicherungs
IDPF = Interbank Deposit Protection Fund
DPFCB = Deposit Protection Fund for Co-operative Banks

the insured balance on their accounts as of the time of the bank failure. Any outstanding checks drawn on the accounts are not paid, for there is no successor bank to pay them. The depositors must quickly establish checking accounts in, and lending relationships with, another bank and must arrange with their creditors to cover the unpaid checks. In the United States, the FDIC makes the insured deposits available on the next business day in almost every bank failure.[28] In other countries, depositors are reimbursed over time after the resolution of the bank. The longer depositors must wait to receive their insured funds, the more severe the disruption becomes.[29]

In the United States, there are two types of deposit payoff: a straight deposit payoff and an insured-deposit transfer. In a straight deposit payoff, the FDIC determines the amount of insured deposits and pays each depositor the appropriate amount by issuing a check. In an insured-deposit transfer, the insured deposits are transferred to a healthy bank that is willing to serve as an agent of the FDIC. Depositors may either withdraw their deposits or keep them in the new bank and continue using its deposit services. Banks bid to serve as an agent of the FDIC, hoping to retain some of the customers of the failed bank.

The straight deposit payoff is usually more costly to the deposit insurer than other resolution methods, because all of the failed bank's assets must be liquidated by the receiver and the bank's franchise value is lost. Furthermore, the deposit insurer incurs additional costs from paying off all the insured depositors. Straight deposit payoffs are costly to the customer as well, because (as mentioned above) checks that are in process are not paid. The insured-deposit transfer eliminates the disruption to the customer and the costs of paying off the deposits, but the receiver still incurs the costs of managing and disposing of all the failed-bank assets. The bank that assumes the insured deposits, however, is able to realize some of the franchise value of the failed bank, even if the assuming bank is unwilling to acquire some of the assets (for example, is unwilling to enter into a purchase-and-assumption transaction). A straight deposit payoff is usually used only when no bank is interested in the deposit franchise and an insured-deposit transfer cannot be arranged.

Overall, deposit insurers outside the United States have the authority to pay off depositors, and they use this authority more often than they use any other type of resolution technique. Of the 36 respondents, 31 answered "Yes" to the following survey question: *Do you have the legal authority to use a [deposit] payoff in handling failed or failing insured depository institutions?* (See Table 6.) Nineteen of these respondents have used a deposit payoff in the last ten years.

Bridge banks. In the United States, a bridge-bank transaction is a type of P&A transaction in which the FDIC itself acts temporarily as the acquirer, taking over the operations of a failing bank and maintaining banking services for the customers.[30] As the name implies, the bridge-bank structure is designed to "bridge" the gap between the failure of a bank and the time when the FDIC can implement a satisfactory resolution of the bank. Initially the FDIC organizes a bridge bank for up to two years, with the possibility of as many as three one-year extensions.[31] The temporary bridge structure provides the FDIC with time to take control of the business of the failed bank, stabilize the situation, and determine an appropriate permanent resolution. It also enables the FDIC to gain sufficient flexibility for reorganizing and marketing the bank.

A bridge-bank resolution is especially useful in two types of situations: when the failing bank is large or unusually complex, such as a multibank holding company, or when the bank is in a liquidity crisis. In the first situation, a bridge-bank structure allows the condition of the bank to be thoroughly examined and further resolution alternatives to be completely evaluated. Before the failed bank goes into the bridge bank, the FDIC applies the least-cost test, and at this point the uninsured and unsecured creditors suffer losses. The bridge-bank structure also provides additional time for due diligence by all interested potential acquirers. In the second situation (a liquidity crisis), a bridge-bank structure allows the FDIC to assure depositors that their deposits are safe.

A bridge bank operates in a conservative manner while serving the banking needs of the community. Its management goal is to preserve the franchise value and lessen any disruption to the local community. It accepts deposits, makes low-risk loans to regular cus-

[28] Banks are generally closed at the end of business on Friday, and depositors are given access to their funds on the following Monday.

[29] For a discussion of the treatment of depositors at failed banks, see Kaufman and Seelig (2000).

[30] The FDIC Board of Directors selects the chief executive officer of the bridge bank and retains a presence on the bank's board of directors.

[31] Most of the bridge banks created by the FDIC lasted less than seven months. For more detail on the FDIC's experience with bridge banks, see FDIC (1998a), chap. 6.

tomers, and honors the commitments made by the failed bank if those commitments would not create additional losses. By continuing the failed bank's lending relationships, it supports the franchise value of the bank.

Not many deposit insurers outside the United States have bridge-bank authority. Only 8 of the 37 respondents answered "Yes" to the following survey question: *Does the deposit insurer have the authority to temporarily own a bridge bank, an institution into which some or all of the assets and liabilities of a failed insured depository institution can be transferred?* (See Table 6.) Of these 8 respondents, only 1 (Mexico) has ever used its bridge-bank authority. Outside the United States, therefore, a bridge bank is by far the least commonly used resolution technique.

Asset Liquidation

Asset liquidation can be a complex process. To be effective, the receiver must first be familiar with the goals of asset liquidation. The responsibility for asset liquidation must be clearly established as part of the financial safety net. It also is useful if the receiver is familiar with past asset-liquidation experience, in order to determine the most effective manner of marketing the assets to meet the established goals of asset liquidation.

Goals of Asset Liquidation

With the exception of a transaction where the acquirer purchases all of the assets of the bank, all types of closed-bank resolutions require a receiver to liquidate some or all of the assets of the failed bank. Three possible goals of asset liquidation are (1) to sell the assets as quickly as possible, (2) to maximize net present value of the assets in liquidation, and (3) to manage the assets to obtain the highest price.

The three goals can be mutually exclusive. For example, suppose the deposit insurer intends to manage assets to obtain the highest price (meeting goal 3), but prices are currently low. The deposit insurer may keep the assets until the price of the assets increases again, but in doing so the insurer will not be meeting the goal of selling the assets quickly as stated in goal 1. In addition, by holding and managing the assets the insurer will incur costs—including the time cost of money—that will cause the net present value to decline, and the insurer will not meet goal 2.

During the banking crisis in the United States in the 1980s and early 1990s, the FDIC had two basic goals in asset disposition: (1) to dispose of assets as soon as possible and (2) to maximize the return on the receiverships. Disposing of assets quickly minimizes disruption to the public during the resolution of failed banks. Maximizing the return on the receivership minimizes the loss to the insurance fund. These two goals are linked, since disposing of assets quickly allows the receiver to avoid asset-management and servicing costs and any loss in value that might occur simply because the asset is held by a receiver. On the other hand, if there is an excess supply of assets in a market that has depressed prices, disposing of the assets quickly may bring an abnormally low price and thereby a low return on the receivership.

Currently, the FDIC is required by law to minimize the loss to the insurance funds and to maximize the return on the assets of the failed bank or thrift.[32] Beyond these statutory requirements, the FDIC has an incentive to maximize the return on assets of the failed bank: by paying insured depositors and then standing in their place, the FDIC becomes a major creditor of the receivership—typically the largest creditor. Thus, it is in the FDIC's own best interest to maximize the return on assets.

In places outside the United States, obtaining the highest prices for the assets is the most common goal of asset disposition. This goal was mentioned by 11 of the 31 respondents who answered the following survey question: *What is the primary goal of the asset liquidation process (for example, maximize the net present value of assets in liquidation, sell the assets as quickly as possible, manage the assets to obtain the highest price)?* (See Table 7.) The next most often cited goal, mentioned by 10 of the 31 respondents, was to liquidate the assets as quickly as possible; 9 respondents mentioned maximizing the net present value of assets in liquidation; and 8 mentioned satisfying the creditors of the receivership. Most respondents mentioned a combination of asset-disposition goals, indicating that the asset-liquidation process entails several competing goals.

[32] FDICIA contains provisions that explicitly define standards for asset disposition. In Section 123 (amending Section 11 of the FDI Act), FDICIA states that the FDIC shall conduct operations in a manner that (1) maximizes the net present value of return from the sale or disposition of assets, (2) minimizes the amount of any loss realized in the resolution of cases, (3) ensures adequate competition and fair and consistent treatment of those who submit bids for the assets, (4) prohibits discrimination on the basis of race, sex, or ethnic group in the solicitation and consideration of bids, and (5) preserves to the greatest extent possible the availability and affordability of residential real-estate property for low- and moderate-income individuals.

Table 7
Goals of Asset Liquidation

Deposit Insurer	Liquidate the assets as quickly as possible	Maximize the net present value (NPV) of assets in liquidation	Obtain the highest prices for the assets	Satisfy the creditors of the receivership	Other
Advanced Economies					
Austria (AAR)					
Austria (AABB)			X		
Belgium				X	
Canada		X			
France			X		
Germany (EdB)					
Germany (E)					
Greece	X		X		
Isle of Man[a]					X
Italy (IDPF)				X	
Italy (DPFCB)		X		X	
Japan					
Netherlands				X	
Portugal	X		X		
Spain	X				
Sweden					
Taiwan Province of China		X		X	
United Kingdom					
Subtotal	**3**	**3**	**4**	**5**	**1**
Developing Economies and Economies in Transition					
Africa					
Nigeria	X		X		
Tanzania				X	
Uganda	X	X			
Europe					
Czech Republic				X	
Hungary					X
Latvia					X
Lithuania			X		
Poland				X	
Romania			X		
Slovak Republic			X		
Turkey		X			
Middle East					
Bahrain	X	X	X		
Oman					X
Western Hemisphere					
Brazil		X			
El Salvador	X	X			
Jamaica		X			
Mexico	X		X		
Peru	X				
Trinidad and Tobago	X		X		
Subtotal	**7**	**6**	**7**	**3**	**3**
Total	**10**	**9**	**11**	**8**	**4**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).

[a]British Crown Dependency.

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E = Einlagensicherungs

IDPF = Interbank Deposit Protection Fund

DPFCB = Deposit Protection Fund for Co-operative Banks

In most places, the primary goal of asset liquidation is set either by policy or by regulation. Thirty-one respondents answered the following survey question: *Is the primary goal of the asset-liquidation process established by regulation, statute, or policy?* (See Table 8.) Fifteen of the 31 respondents mentioned policy, 14 mentioned regulation, and 4 mentioned statute. Some of the deposit insurers indicated that asset-liquidation goals were established by some combination of regulation, statute, and policy.

Responsibility for Asset Liquidation

Responsibility for asset liquidation can lie with either a government entity or a private party. If the government entity is responsible for asset liquidation, it may be allowed to contract out the responsibility to the private sector. This power is particularly useful if the amount of failed-bank assets that needs to be liquidated is large and/or the number of experienced asset liquidators employed by the government is insufficient. The government may choose to keep its liquidation staff small and contract out to the private sector the greater part of the responsibility. In that case, the challenge is to develop contracts that align the interests of the private asset-management companies with the interests of the government. Such contracts must include provisions for effective monitoring by the government. At the same time, however, for the private sector to operate efficiently, there must be minimal interference from the government. The way to balance these objectives is to have identifiable and measurable performance outcomes. Finally, contractors should be contractually bound to operate fairly, equitably, and legally.

In the United States during the banking crisis of the 1980s and early 1990s, the FDIC used the private sector to manage and liquidate receivership assets.[33] In the peak period of 1988 to 1993, private-sector firms managed more than 45 percent of the FDIC's post-resolution assets.[34] The FDIC designed its asset-management and disposition contracts to facilitate the disposition of distressed and repossessed assets (especially nonperforming loans and owned real estate), using many forms of contracts and modifying them over the years as it gained experience.[35]

Early in the process, the asset-liquidation contracts required payment of the private asset liquidators on a cost-plus basis: the FDIC would reimburse liquidators for all expenses and overhead costs incurred during liquidation and would pay a fixed incentive fee. However, this type of liquidation contract did not

Table 8
Establishing the Goals of Asset Liquidation

	Is the primary goal of the asset-liquidation process established by regulation, statute, or policy?			
Deposit Insurer	Regulation	Statute	Policy	Other
Advanced Economies				
Austria (AAR)				
Austria (AABB)	X			
Belgium				
Canada			X	
France			X	
Germany (EdB)			X	
Germany (E)			X	
Greece			X	
Isle of Man[a]		X		
Italy (IDPF)	X			
Italy (DPFCB)	X			
Japan				
Netherlands	X			
Portugal	X			
Spain		X		
Sweden				
Taiwan Province of China			X	
United Kingdom				
Subtotal	**5**	**2**	**6**	**0**
Developing Economies and Economies in Transition				
Africa				
Nigeria			X	
Tanzania				X
Uganda			X	
Europe				
Czech Republic	X			
Hungary	X			
Latvia	X	X	X	
Lithuania	X			
Poland	X			
Romania				
Slovak Republic	X			
Turkey			X	
Middle East				
Bahrain		X	X	
Oman	X			
Western Hemisphere				
Brazil			X	
El Salvador	X			
Jamaica			X	
Mexico	X			
Peru			X	
Trinidad and Tobago			X	
Subtotal	**9**	**2**	**9**	**1**
Total	**14**	**4**	**15**	**1**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).

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[33] This discussion focuses on the evolution of asset-liquidation contracts at the FDIC. For more information on the development of asset-liquidation and management contracts at the Resolution Trust Corporation (RTC), see FDIC (1998a), chap. 13.

[34] FDIC (1998a), 50.

[35] For details on the evolution of asset-disposition practices, see FDIC (1998b), chap. 12.

give the private asset liquidators any incentive to contain costs. To maximize the net present value of cash flows from the liquidation, the FDIC had to build in incentives for the private contractors to control costs, and more complicated contract structures evolved. For example, incentive fees came to be based on the ratio of net collections to the value of the asset pool. Thus, the FDIC learned from experience to design contracts that more closely aligned contractors' incentives with its own goals of asset liquidation.

In many places the receiver is responsible for the liquidation of assets. Twenty-nine of the 34 respondents answered "Yes" to the following survey question: *Is the receiver responsible for the liquidation of the assets of the receivership?* (See Table 9.) But being responsible for the liquidation does not always mean that the deposit insurer directly liquidates the assets of failed banks. Thirty-seven respondents answered the following survey question: *What role does the deposit insurer have in the asset-liquidation process?* Only 6 of the 37 indicated that the deposit insurer has a direct role in liquidating assets, and 5 of the 6 are located in developing economies and economies in transition. Sixteen of the 37 respondents indicated that the deposit insurer has no role in asset liquidation. The 15 remaining respondents said the deposit insurer oversees asset liquidation, exerts some influence over asset liquidation as a creditor of the receivership, or is involved in asset liquidation in some other capacity.

In some economies, both the public sector and the private sector liquidate assets of failed banks. Sixteen deposit insurers responded to the following survey question: *What percentage of effort involved in selling assets is handled by the private sector (as compared to government employees)?* (See Table 10.) Nine respondents indicated that the private sector handles all the asset sales, and two respondents (Turkey and Brazil) indicated that the private sector does not handle any of the asset sales, but the remaining five said the responsibility for asset sales is shared by the government and the private sector.

Eight deposit insurers responded to the following survey question: *What is the percentage [of effort involved in] asset management [handled by the private sector (as compared with government employees)]?* (See Table 10.) Only one deposit insurer (Isle of Man) indicated that the private sector is solely responsible for asset management; three said the private sector has no involvement; and four said the private sector and the government share the responsibility.

Asset-Liquidation Experience

Typically the assets that remain with the receivership are those that are hardest to liquidate. For example, in a purchase-and-assumption transaction the distressed assets are left in the receivership while the higher-quality assets are taken by the acquirer. Because distressed assets are usually retained in the receivership, they are sold after the resolution is completed. Or, instead of attempting to sell the assets, the receiver can wait for borrowers to repay the troubled loans, or negotiate compromises with the borrowers.

In the United States during the banking crisis of the 1980s and early 1990s, the focus was on attempting to sell the assets. At first, employees at the FDIC managed and liquidated each asset individually. But as the volume of assets held by the FDIC increased, it became less practical to manage and sell individual assets (a $100,000 loan required roughly the same amount of labor as a $1,000,000 loan). So the FDIC gradually developed more-sophisticated methods of liquidating assets; these included selling assets in bulk, providing representations and warranties, forming equity partnerships, and securitizing the sales of assets.[36]

The first step, when it became apparent that selling assets individually was increasingly less practical, was to sell them in bulk: the FDIC began to package together loans with similar characteristics. At that time an established market did not exist for such loan packages, so the FDIC began by creating small packages, ranging from $1 million to $2.5 million in book value. These small packages generated interest and the FDIC gathered information on potential buyers. As the initial buyers gained experience, they were able to attract capital and funding that enabled them to expand their businesses. Gradually, the book value of the loan packages grew, and the FDIC was able to sell large portfolios to an expanded marketplace of buyers.

To facilitate the sale of troubled assets, the FDIC and the Resolution Trust Corporation (RTC) also provided representations and warranties. These are legally binding statements made to buyers to assure them that the assets being sold meet certain minimum quality criteria. If these criteria are not met, the seller is obligated either to cure the condition or to offer a remedy, such as a repurchase or a substitution of another

[36] For more details on the evolution of asset-disposition practices in the United States, see FDIC (1998a), chap. 12.

Table 9
Responsibility for Asset Liquidation

Deposit Insurer	Is the receiver responsible for the liquidation of the assets of the receivership		What role does the deposit insurer have in the asset liquidation process?				
	Yes	No	None	Liquidates assets	Oversees asset liquidation	Exerts influence as a creditor of the receivership	Other
Advanced Economies							
Austria (AAR)			X				
Austria (AABB)	X		X				
Belgium	X		X				
Canada		X			X		
France	X		X				
Germany (EdB)	X					X	
Germany (E)	X					X	
Greece	X		X				
Isle of Man[a]							X
Italy (IDPF)	X						X
Italy (DPFCB)	X						X
Japan	X		X				
Netherlands	X		X				
Portugal	X		X				
Spain	X					X	
Sweden			X				
Taiwan Province of China	X			X			
United Kingdom	X					X	
Subtotal	**14**	**1**	**9**	**1**	**1**	**4**	**3**
Developing Economies and Economies in Transition							
Africa							
Nigeria	X			X			
Tanzania	X			X			
Uganda	X			X			
Europe							
Czech Republic		X	X				
Hungary	X					X	
Latvia		X	X				
Lithuania	X			X			
Poland	X		X				
Romania		X	X				
Slovak Republic	X						X
Turkey	X						X
Middle East							
Bahrain	X		X				
Oman	X						X
Western Hemisphere							
Brazil	X		X				
El Salvador		X		X			
Jamaica	X				X		
Mexico	X				X		
Peru	X		X				
Trinidad and Tobago	X				X		
Subtotal	**15**	**4**	**7**	**5**	**3**	**1**	**3**
Total	**29**	**5**	**16**	**6**	**4**	**5**	**6**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).

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Table 10
Private-Sector Involvement in Asset Sales and Management

Deposit Insurer	What percentage of effort involved in selling assets is handled by the private sector (as compared with government employees)?	What is the percentage for asset management?
Advanced Economies		
Austria (AAR)		
Austria (AABB)		
Belgium		0
Canada	100	
France		
Germany (EdB)		
Germany (E)		
Greece		
Isle of Man[a]	100	100
Italy (IDPF)		
Italy (DPFCB)		
Japan		
Netherlands		
Portugal		
Spain	100	
Sweden		
Taiwan Province of China		
United Kingdom		
Developing Economies and Economies in Transition		
Africa		
Nigeria	100	
Tanzania	100	
Uganda	100	
Europe		
Czech Republic	100	
Hungary		
Latvia		
Lithuania	80–100	80–100
Poland	100	
Romania	100	
Slovak Republic		
Turkey	0	0
Middle East		
Bahrain		
Oman		
Western Hemisphere		
Brazil	0	
El Salvador	10	10
Jamaica	70	98
Mexico	30	30
Peru		
Trinidad and Tobago	<1	0
Number of Respondents	16	8

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
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asset. Representations and warranties are used when assets are being sold in a secondary market where representations and warranties are customary and where their omission will cause lower prices to be offered for the assets.[37]

Representations and warranties can be as simple as a representation that the seller is the owner of the loan or as complex as a representation and warranty addressing environmental concerns. As an example of the latter, the sellers can offer the buyers the opportunity to perform an environmental inspection before bidding or can offer an indemnification if environmental contamination turns out to be present. Because representations and warranties create ongoing obligations, or contingent liabilities, for the deposit insurer, estimating the expected costs of the transaction may be difficult. Representations and warranties usually include termination dates; thus, the contingent liability of the deposit insurer expires on a particular date.

Another asset-disposition technique used in the United States was equity partnerships: the FDIC structured joint ventures with private investors. The FDIC acted as a limited-liability partner, contributing the asset pools and arranging for financing to the partnership. The private investor contributed both equity capital and asset-management services. Once the partnership's debt was paid off, the proceeds from the assets were split between the partners according to a previously agreed-upon percentage of ownership.[38]

The FDIC and the RTC also successfully used securitization to dispose of a sizable portion of assets. Securitization of assets entails packaging assets with similar features and somewhat predictable cash flows into an interest-bearing security. In the United States in the 1980s, the market for mortgage-backed securities—securities backed by a pool of residential loans—was already well established by the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae). Marketing mortgage-backed securities was therefore much easier than marketing less-conventional securities that were backed by other assets, such as commercial loans.

In most places, assets of failed banks have been liquidated during the past ten years. Twenty-eight of the 34 respondents answered "Yes" to the following survey question: *Have assets of failed banks been liquidated during the past ten years?* (See Table 11.) Of the 19 respondents in developing economies and economies in transition, four have not liquidated assets of failed banks in the past ten years.

Twenty-eight deposit insurers responded to the follow-up survey question: *If yes, what has been the most commonly used strategy for converting the assets into cash (for example, asset sales, securitizations, compromises with borrowers, loan repayments, sale to the bank that takes deposits)?* Nineteen of the 28 respondents mentioned asset sales; eight mentioned loan repayments; eight mentioned selling the assets to banks that take deposits; and one mentioned the securitization of assets. (See Table 11.)

The choice of strategy for disposing of assets is influenced by many factors. Twenty-seven deposit insurers responded to the following survey question: *What factors influence the determination of the strategy used to dispose of assets?* (See Table 12.) Eight indicated that the nature and quality of the assets influenced the disposition strategy, and three mentioned the size and condition of the market for failed-bank assets. Four of the respondents, however, indicated that the strategy was determined case by case. Overall, the reasons for using particular asset-disposition strategies were varied.

The survey respondents found that nonperforming loans and owned real estate were the two most difficult assets to liquidate. Twenty deposit insurers responded to the following question: *What types of assets have you found to be the most difficult to dispose of?* (See Table 13.) Five of the respondents indicated nonperforming loans and five indicated owned real estate. Also mentioned were commercial and industrial loans and commercial and industrial real estate. Many of the respondents indicated that these assets were hard to dispose of either because they were large relative to the economy or because encumbrances made them hard to market.

[37] For more information on representations and warranties, see Moreland-Gunn et al. (1995).

[38] For more detail on the use of equity partnerships in the United States, see FDIC (1998a), chap. 17.

Table 11
Asset-Liquidation Experience

Deposit Insurer	Have assets of failed banks been liquidated during the past 10 years?		If yes, what has been the most commonly used strategy for converting the assets into cash (for example, asset sales, securitizations, compromises with borrowers, loan repayments, sale to bank that takes deposits)?					
	Yes	No	Asset sales	Securitizations	Compromises with borrowers	Loan repayments	Sale to bank that takes deposits	Strategy decided case by case
Advanced Economies								
Austria (AAR)		X						
Austria (AABB)	X							X
Belgium	X		X				X	
Canada	X		X		X	X		
France	X							X
Germany (EdB)	X							X
Germany (E)	X							X
Greece	X		X		X	X		
Isle of Man[a]	X		X					
Italy (IDPF)	X						X	
Italy (DPFCB)	X						X	
Japan								
Netherlands								X
Portugal								
Spain	X		X					
Sweden	X							X
Taiwan Province of China		X						
United Kingdom	X							
Subtotal	**13**	**2**	**5**	**0**	**2**	**2**	**3**	**6**
Developing Economies and Economies in Transition								
Africa								
Nigeria	X		X			X		
Tanzania	X		X			X		
Uganda	X		X			X	X	
Europe								
Czech Republic	X		X				X	
Hungary	X		X					
Latvia	X		X	X	X	X	X	
Lithuania	X		X			X		
Poland	X		X				X	
Romania	X		X					
Slovak Republic		X						
Turkey	X		X		X			
Middle East								
Bahrain		X						
Oman		X						
Western Hemisphere								
Brazil		X						
El Salvador	X		X				X	
Jamaica	X				X			X
Mexico	X		X					
Peru	X		X			X		
Trinidad and Tobago	X		X					
Subtotal	**15**	**4**	**14**	**1**	**3**	**6**	**5**	**1**
Total	**28**	**6**	**19**	**1**	**5**	**8**	**8**	**7**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
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Table 12
Reasons for Using Asset-Sales Strategy

Deposit Insurer	What factors influence the determination of the strategy used to dispose of assets?						
	Nature and quality of the assets	Minimizing the time to reimburse depositors	Statute, regulation, or policy	Size or condition of the asset market	Macroeconomic conditions, interest rates, state of credit markets	Factors differ case by case	Other
Advanced Economies							
Austria (AAR)							
Austria (AABB)							
Belgium		X					
Canada				X	X		X
France						X	
Germany (EdB)						X	
Germany (E)						X	
Greece							
Isle of Man[a]							X
Italy (IDPF)							
Italy (DPFCB)							X
Japan							
Netherlands							
Portugal							
Spain	X				X		
Sweden							X
Taiwan Province of China	X		X				X
United Kingdom							
Subtotal	**2**	**1**	**1**	**1**	**2**	**3**	**5**
Developing Economies and Economies in Transition							
Africa							
Nigeria	X						
Tanzania	X		X				X
Uganda	X			X			
Europe							
Czech Republic							X
Hungary							
Latvia							
Lithuania			X				
Poland		X					
Romania			X				
Slovak Republic							
Turkey	X						X
Middle East							
Bahrain						X	
Oman							X
Western Hemisphere							
Brazil							
El Salvador				X			
Jamaica	X						
Mexico							X
Peru					X		
Trinidad and Tobago	X						
Subtotal	**6**	**1**	**3**	**2**	**1**	**1**	**5**
Total	**8**	**2**	**4**	**3**	**3**	**4**	**10**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).
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Table 13
Types of Assets Most Difficult to Liquidate

Deposit Insurer	What types of assets have you found to be the most difficult to dispose of?							
	Loans	Non-performing loans	Owned real estate	Commercial and industrial loans	Commercial and industrial real estate	Bank premises	Obsolete assets	Other
Advanced Economies								
Austria (AAR)								
Austria (AABB)								
Belgium								
Canada				X				X
France								
Germany (EdB)								
Germany (E)								
Greece								
Isle of Man[a]								
Italy (IDPF)		X						
Italy (DPFCB)		X						
Japan								
Netherlands								
Portugal								
Spain		X						X
Sweden								
Taiwan Province of China				X				
United Kingdom								
Subtotal	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**2**
Developing Economies and Economies in Transition								
Africa								
Nigeria					X		X	
Tanzania			X					
Uganda			X					
Europe								
Czech Republic	X							
Hungary								
Latvia								
Lithuania								
Poland		X						
Romania						X		
Slovak Republic								
Turkey								X
Middle East								
Bahrain								
Oman								
Western Hemisphere								
Brazil								
El Salvador			X					
Jamaica					X			
Mexico	X	X	X	X	X	X	X	X
Peru							X	
Trinidad and Tobago			X					
Subtotal	**2**	**2**	**5**	**1**	**3**	**2**	**3**	**2**
Total	**2**	**5**	**5**	**3**	**3**	**2**	**3**	**4**

Note: Classification of economies into "Advanced," "Developing," or "Economies in Transition" is from International Monetary Fund (2000).

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Conclusions

The results of the survey of deposit insurers clearly indicate that, compared with other deposit insurers, the FDIC has a unique role in resolving bank failures and disposing of failed-bank assets. In contrast to the FDIC's role as a receiver, in other places the court establishes a receivership and court-appointed receivers run the receivership. The FDIC's authority to act as receiver of a failed bank, and the special powers it possesses as receiver, allow it to reimburse insured depositors quickly and to expedite the asset-liquidation process. However, these additional powers should not, and do not, go unchecked.

One check is a least-cost requirement. The FDIC is allowed to deviate from the least-cost requirement only if a systemic-risk determination has been made. In places outside the United States, some flexibility is built into the least-cost test: many deposit insurers are allowed some exceptions to their least-cost requirement.

In arriving at the least costly resolution, the FDIC has authority to choose among various types of resolution structures. Deposit insurers in other places also have some flexibility in the type of resolution they can choose. Most commonly, insurers have the authority to use open-bank assistance or a deposit payoff, but many can also use a P&A transaction. Not many deposit insurers have the authority to use a bridge-bank structure. Consistent with the general finding that deposit insurers act as paying agents and not as receivers, the most commonly used resolution type outside the United States is a deposit payoff.

Even so, some deposit insurers have liquidated failed-bank assets in the past ten years, and for these insurers, the assets hardest to liquidate are the same types that are hardest to liquidate in the United States. Perhaps the experience of the FDIC and the RTC in liquidating failed-bank assets, and the techniques they created during the U.S. banking crisis of the 1980s and early 1990s, will help other locations to market distressed assets in the future.

More generally, despite the uniqueness of the FDIC's role in resolving failed banks, the FDIC's experience may be helpful to other countries that are designing financial safety nets. Of course, it is crucial to take into account each country's political, cultural, and market infrastructure. Nevertheless, some of the resolution and asset-liquidation techniques developed by the FDIC can very likely be applied effectively in other countries.

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