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Good riddance

Excellence in managing wind-down portfolios

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Introduction

It is now quite common to hear talk about the financial crisis of 2008–09. But it is becoming clear that, in a sense, the crisis never really ended. The global financial system continues to struggle with excessive debt, and the necessary deleveraging process will continue for many years to come.¹ In 2008, bank-liquidity and solvency issues brought down many banks and forced governments to step in. Since 2010, many governments have started to stagger under the debt load; as a result, the banking system has come under enormous new stress. At the same time, new regulatory requirements and more difficult economic circumstances are requiring many banks to quickly reshape their business models, and even restructure, so that they are equipped for today's conditions.

When debts prove too much for their owners, many look for a structural solution. The “bad bank,” pioneered in the 1980s, has become a favored way to put an end to doubt and find a fresh start. Over the past few years, more than 15 new bad banks have emerged, both external institutions that are operationally (and often legally) separate from the original bank, as well as internal entities charged with winding down “ring fenced” portfolios of bad or nonstrategic assets. There are many names for these structures: “wind-down divisions,” “legacy assets,” “noncore,” “collection bank,” “value bank,” which reflect the range of rationales that have led to their creation. In practice, all are quite similar: segregated assets are wound down in a value-preserving way. While very few institutions use the term “bad banks” in their formal communications, most use the phrase informally. In this paper we will use the generic term bad banks to include all these structures, except as otherwise noted.

The essential idea of the prototypical bad bank is to help an institution under stress to rebuild trust by clearly segregating weak assets from the rest. Such a separation provides transparency into the core bank's performance and provides an occasion and rationale to restructure the balance sheet, accelerate the deleveraging process, and reshape the business model. It also gives the bank an opportunity to improve the economics of the wind-down portfolio through structural advantages such as lower capital and funding requirements.

But these goals can only be met through effective and targeted management. Each of the new bad banks is staffed with teams of dozens or hundreds of bankers who have had to learn as they go, applying ingenuity to the design and operation of a new kind of institution. We have drawn on our experience with several of these institutions and on interviews with leading executives to collect, develop, and validate the actions and principles that managers of wind-down portfolios are using today to find success. Ten topics grouped into three themes—portfolio wind-down, operating model, and regulatory strategy and communications—present the most important lessons for excellence in managing wind-down portfolios.

Recently, Dexia announced that it will establish a wind-down portfolio, which will be at least the 16th formed since 2008; other institutions are contemplating such a step. As the world's deleveraging continues to bump along, it is likely that more will follow. The success or failure of these wind-down portfolios will have an enormous impact, determining in large measure the cost to societies to reduce their debt burden to a sustainable level. For that reason, banks, investors, regulators, and governments all have a strong interest in making sure the management of wind-down portfolios is successfully designed and executed.

The new wave of bad banks

The idea of segregating assets for discrete wind-down is not new.² Previous crises have prompted the formation of bad banks, although they were often restricted to one country (for example, the savings-and-loan debacle in the United States in the 1980s, the Swedish financial crisis in the early 1990s, and the real-estate busts in France in 1994 and Japan

¹ See the McKinsey Global Institute's “Debt and deleveraging: The global credit bubble and its economic consequences,” June 2010, and an updated analysis published in July 2011 (www.mckinsey.com).

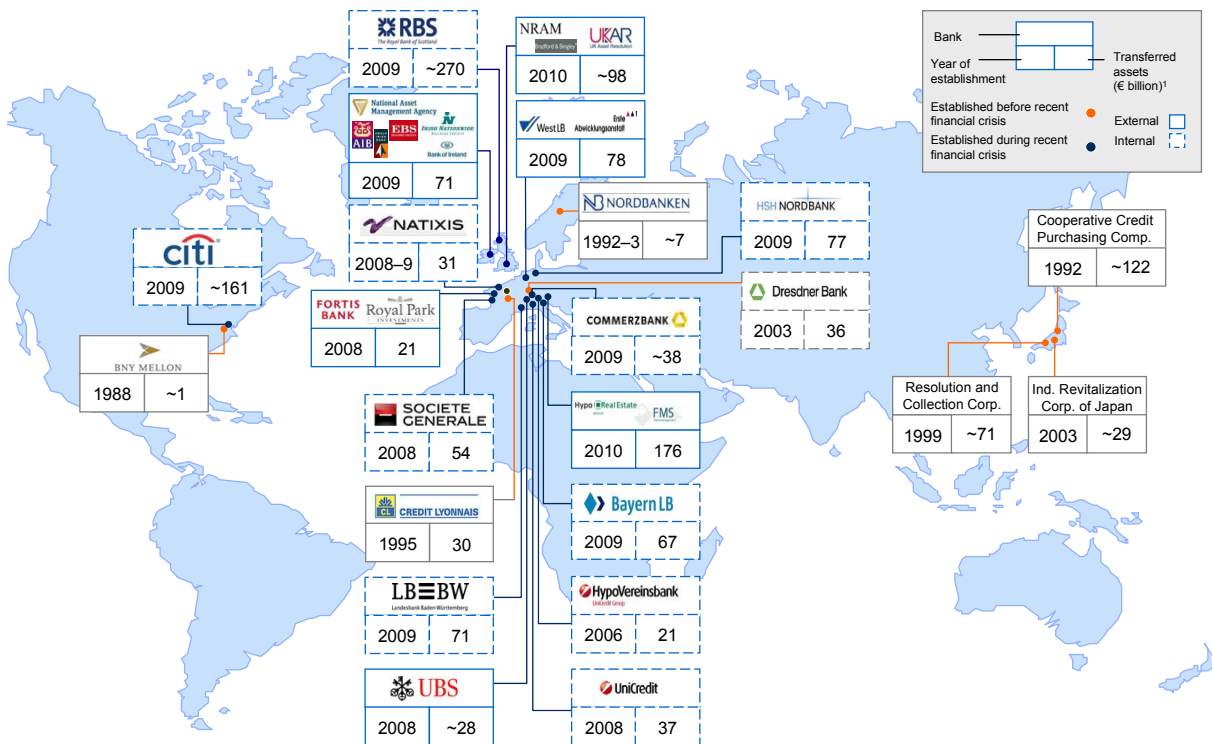
² For a primer on bad banks, see “Understanding the bad bank,” *McKinsey on Corporate and Investment Banking*, Number 9, Autumn 2009 (www.mckinseyquarterly.com).

in 1992, 1999, and 2003). The bad banks that arose from these events tended to be structurally simple, usually a “ring fence” around a credit portfolio of largely homogeneous assets (commercial real-estate loans, say).

Exhibit 1 Bad banks, wind-down divisions, and legacy assets have sprung up worldwide.

**Large wind-down operations,
1988–2011**

NOT EXHAUSTIVE



¹ As of establishment date of the bad bank.
Source: Central bank Web sites; investor releases; press search

The crisis of 2008–09 has turned bad banks from a rarity into a commonplace. The phenomenon is global in many respects but is certainly centered in the West (Exhibit 1; see the appendix for more detail). The new group of bad banks has to wrestle with much more complex challenges than its predecessors. The portfolios are larger, typically between \$30 billion and \$100 billion in assets, with some significantly larger outliers. In some cases, the assets transferred to the new bad banks were homogenous (mortgages, typically); in other cases, banks have dispatched much more varied books of loans, bonds, and structured credits. Banks have also placed some perfectly sound but no longer desired assets into wind-down divisions, such as businesses deemed nonstrategic, and even unwanted subsidiaries. These assets often spread across several or even dozens of jurisdictions.

National plans

Perhaps the best way to understand the differences among the banks that have sprung up in recent years is to consider the role of the government, which has a lot to do with the final form the bad bank takes. The earliest bad banks were strictly internal restructuring units, residing within the original bank structure as a separate division or subsidiary focused on the successful wind-down of ring-fenced portfolios of bad or nonstrategic assets; many banks have recently set up units like these. But several are receiving help from the government, a new actor on the scene. Examples include Erste Abwicklungsanstalt (EAA), the bad bank of WestLB, and FMS Wertmanagement (FMS), the bad bank of Hypo Real Estate, both in Germany; Ireland's National Asset Management Agency (NAMA), which accepted assets from several troubled Irish banks; and UK Asset Resolution Ltd., which formed the holding company for two nationalized UK banks.

A few other countries, including the United States and Switzerland, have also designed national solutions. These countries, of course, were the ones that came under the most severe pressure at the height of the crisis. While they differ in the degree of state involvement and risk transfer, they share a common impulse: to provide beleaguered banking systems with the kind of broad and deep support needed to restore confidence and support the deleveraging of the economy. Several of the bad banks shown in Exhibit 1 are in fact participants in one of these national schemes.

Driving each national design is a set of four factors. One key consideration is the degree of consolidation in the banking system and its interconnectedness. In Switzerland, for example, the two largest banks represent a majority (85 percent) of the banking system's assets; similarly in the United Kingdom, the top four banks account for 80 percent of the system. When banking is thus consolidated, national plans will tend to be comprehensive.

Another factor is the size of the banking system in comparison to the national economy. This ranges from 85 percent of GDP in the United States (2010) to more than 1,000 percent in Ireland (2010), where, clearly, banks vastly outgrew their original role in the economy. Here again, where banks dominate the economy, national plans must be broad based.

The government's capacity to take on additional debt is the third factor that has played a role in the design of national schemes.³ Using some established benchmarks for debt/GDP, we see that some countries that could feasibly take on more debt did, while others did not. Germany selected a structure in which EAA and FMS can be run with very limited equity and can refinance themselves with the support of the national government and the State of North Rhine-Westphalia, respectively. Germany had to accept that its debt/GDP ratio would increase by approximately 9 percentage points as a result. NAMA, on the other hand, does not count toward Ireland's debt/GDP ratio, because it is partially owned by some Irish banks. The United Kingdom supported the Royal Bank of Scotland (RBS) through a guarantee structure and direct recapitalization, which also did not increase the debt/GDP ratio.

Finally, of course, there is a question of political will. Each nation's scheme has been shaped by the perceived support for the state's rescue of banks and the willingness and ability to adapt the law to make it possible.

3 Government capacity for additional debt can also determine the business model of bad banks that participate in national plans, as the bad bank can take a longer-term perspective on the wind-down of its assets if government support grants it some relief from minimum regulatory capital requirements and access to cheaper funding. The downside is that the debt of bad banks that receive help from the government may count as sovereign debt and could drive debt/GDP ratios so high that the government has difficulty servicing its debt obligations.

This complex set of factors has led to some divergent national schemes. Those in the United Kingdom and Switzerland are large and more comprehensive than elsewhere, reflecting the danger to the state if the banking sector should collapse. Most schemes make extensive use of guarantees and other soft supports. The scheme in the United States (the Troubled Asset Relief Program, or TARP) went off well, and on a short timeline, while others continue to operate. Germany designed two schemes to address its two very different bank-ownership models, public and private, but only the consolidation model has been applied in practice.

Exhibit 2 provides a summary of the different national bad-bank schemes; the appendix provides further detail.

Exhibit 2 A variety of national bad-bank schemes are in place in the US and Europe.

	Name, main characteristics	Participants	Macroeconomic indicators	
			Banking assets/GDP ¹	Debt capacity ²
United Kingdom	<ul style="list-style-type: none"> Asset Protection Scheme (APS): provides government guarantee to internal restructuring units; banks to cover first loss and parts of second loss UK Asset Resolution Ltd. (UKAR): serves as holding company to bring together 2 government-owned banks; provides new management for wind-down 	<div>APS</div> <div>UKAR</div> <div>RBS³</div> <div>NRAM</div> <div>Bradford & Bingley</div>	412%	61%
Ireland	<ul style="list-style-type: none"> National Asset Management Agency: purchases land, development, and associated loans from troubled banks and coordinates their management 	<div>AIB</div> <div>EBS</div> <div>Bank of Ireland</div> <div>IRISH NATIONWIDE</div>	1,093%	96%
United States	<ul style="list-style-type: none"> Asset Guarantee Program: provides support to internal restructuring units; focus is on loan and real estate-backed securities 	<div>citi</div>	85%	92%
Germany	<ul style="list-style-type: none"> Consolidation model: transfers assets into separate government agency at book value; implicit guarantee from owners Special-purpose-vehicle model for toxic structured assets; not in use 	<div>Hypo Real Estate GROUP</div> <div>WestLB</div>	338%	81%
Switzerland	<ul style="list-style-type: none"> SNB StabFund: purchases mortgage-related products and provides strategic management of these assets 	<div>UBS</div>	556%	43%

¹ Total bank assets as % of GDP.

² Government debt as % of GDP.

³ Lloyd's originally signed up for APS support but was able to raise additional capital without further aid from the scheme.

Source: Central-bank Web sites; press; Internet search

Operational excellence in managing wind-down portfolios

The bad banks in this new wave have been up and running for only a few years, yet already much has been learned. Our experience with several bad banks suggests that there are 10 topics that figure prominently in the successful management of wind-down portfolios (Exhibit 3)—topics that stand out not simply because they involve complex trade-offs worthy of our attention but because these choices ultimately drive most of the value gained or lost. We group these 10 topics according to activity: portfolio wind-down, operating model, and regulatory strategy and communications.

Exhibit 3 Bad banks require ten elements of operational excellence.

A. Portfolio wind-down

1. Wind-down strategy
2. Portfolio sales
3. Workout
4. Asset-liability management and funding

B. Operating model

5. Organization
6. Outsourcing
7. People and incentives
8. Data quality and IT

C. Regulatory strategy and communications

9. Banking license and legal status
10. Stakeholder management

A. Portfolio wind-down

1. Wind-down strategy

“Develop a granular, cluster-based wind-down plan early on”

The essential question is whether to hold assets until maturity or sell them, and if they are to be sold, how quickly? A rapid wind-down will release capital in the long term, reduce risk and therefore risk-weighted assets (RWAs), draw a line under the episode, and allow the bank to deleverage and its people to return to “normal” jobs. But this wind-down usually comes at a cost, as selling quickly into a buyer’s market can only be done at a steep discount. A leisurely wind-down will often provide a better return on bad assets, but it also exposes the bank should the assets deteriorate further, and it leads to higher ongoing RWAs and the consequent need to hold capital.

Broadly speaking, these choices are governed by the bad bank’s cost of capital and the funding climate in which it operates. If a government has a lower level of debt intensity and can afford to shoulder additional borrowing for many years, it can support the funding of its bad banks over the long term. This is the case with the German bad-bank model. On the other hand, governments with high debt intensity will look for a rapid deleveraging. The same is true for internal bad-bank solutions. Indeed, the core bank often expects a rapid deleveraging from its bad bank, as this will reduce the funding pressure on the group during the recovery period as well as release significant RWAs and lower capital requirements.

Based on the desired wind-down pace and the amount of capital provided to absorb deleveraging losses (often referred to as the “loss budget”), the bad bank must develop its wind-down strategy, with all of its assets sorted into clear categories. The following categories are similar to those used at RBS (see “Setting the pace,” p. 6) and may serve as an example:

■ Immediate action, of two kinds:

- **Fix urgently.** These assets had to be restructured in the short term or hedged to limit risk, in preparation for a potential exit in a better market environment. RBS took this action in the first year of establishing its Non-Core Division, as evidenced by the high level of impairments it took in 2009.
- **Prepare for sale.** These long-dated, highly capital-intensive assets posed a significant risk from further expected credit deterioration. RBS thought it could achieve a higher price in the market for these assets than their intrinsic value to the bank.

Setting the pace: Lessons learned at the Royal Bank of Scotland

Rory Cullinan joined the Royal Bank of Scotland (RBS) in early 2009 to head the Non-Core Division (NCD). The NCD was set up as a primary driver of risk reduction for the group, with the aim of reducing third-party assets (TPAs), excluding derivatives, from £258 billion at the end of 2008 to less than £40 billion by the end of 2013. Actual asset reduction to date is ahead of schedule, with TPAs by year-end 2011 expected to be below £100 billion. The NCD has completed more than 500 asset or portfolio sales to date, and at this time has 62 data rooms open for prospective buyers. We interviewed Rory in the fall of 2011.

How was the initial wind-down plan developed, and how were assets selected for the wind-down?

The main aim of the NCD is to return the bank to balance-sheet and funding strength through a managed deleveraging process. We established five strategic tests; businesses that did not meet these tests were identified as noncore. The five tests are strong customer franchise, higher-than-required returns, organic-growth potential, proportionate use of capital and funding, and connectivity within the RBS franchise.

How did you manage the potential trade-off between wind-down timelines and value preservation? How did you make the decision to hold or to sell assets?

A key consideration for us was to avoid volatility in the capital position of the group through the deleveraging process. Hence, the main criteria we used in our decision making were the capital implications of our decisions (that is, the impact from less-than-book recovery and the resulting capital release).

Our principles were quite simple. We set ourselves a five-year period. Our immediate priority was to impair and restructure assets and hedge risk in the trading book. If an asset was performing, not very capital-intensive, and expected to pay back with a maturity of less than five years, we let it run off. Most of our assets fall into this category. Typical assets marked for sale were long-dated, highly capital-intensive assets with a refinancing risk and further expected credit deterioration. And we knew that we would have to hold some assets in the long term. These are highly illiquid, long-dated assets such as infrastructure loans. By 2014, this rump should be less than £40 billion.

What were the key success factors that enabled you to achieve the planned disposals?

The first key success factor is to identify “real” buyers quickly—in other words, identify real buyers that you would close deals with. Due to the lower leverage of some potential investors, such as private-equity firms, the intrinsic value of assets to them is lower than for us as a bank. In addition, missing debt liquidity further limits these investors’ buying capacity. The real buyers are banks with balance-sheet capacity.

Second, invest heavily in clean data. In reality, no deal takes less than six months and there are no shortcuts. Also, there are not many large deals in an environment where everyone is weakened. We have 80 people cleaning up data and creating data tapes.

And finally, make the assets “fit for purpose”: a one-size-fits-all approach does not work; each sale requires a tailored approach depending on the asset/portfolio and the potential buyer.

■ **Medium- to long-term action**, again of two kinds:

- **Run off naturally.** Medium-term performing assets that did not consume much capital were deemed likely to generate better returns if allowed to mature, without any intervention.
- **Hold in hope.** These were highly illiquid, long-dated assets that would require a massive haircut if sold or incur a large cost to restructure or hedge. RBS decided the best course of action was to “hope for the markets to turn” for these assets. It saw these assets, which made up 10 to 15 percent of the total, as a likely “rump,” or small fragment or remainder, at the end of the planned life of the Non-Core Division.

Banks should force themselves to make these hard choices up front, by developing a granular wind-down plan, where homogeneous clusters and assets are placed into different categories, as described above. One other potential category of assets—those that should be sold quickly but cannot be sold directly—might be addressed by a debt-to-equity swap or other similar structures. With close management oversight, these can potentially yield some upside in value.

Special wind-down tools are essential for preparing a thorough wind-down plan and making these difficult decisions; proven tools include a model of asset cash flows and a hedging and funding calculator. Both support a multiyear view of the balance sheet and profit and loss. A model to prepare tailored scenarios and comprehensive stress tests is another required tool.

Once the portfolio is segmented, its management becomes much easier. Equity holdings are one example where early decisions on the wind-down strategy are especially important. Keeping the operations of a subsidiary up and running for a potential sale in the future can be costly; providing oversight and fulfilling regulatory requirements can be expensive and complex. An early structured wind-down of the subsidiary is often the best option.

2. Portfolio sales

“Identify potential buyers with capacity to invest in distressed assets”

Identifying the right buyers is essential for any business model requiring asset or portfolio sales, especially one in which the bank hopes to wind down quickly. The cardinal rule for finding these buyers is that the natural owners will have a low weighted average cost of capital (Exhibit 4). Primarily, of course, these buyers will be other banks, but other players should also be considered.

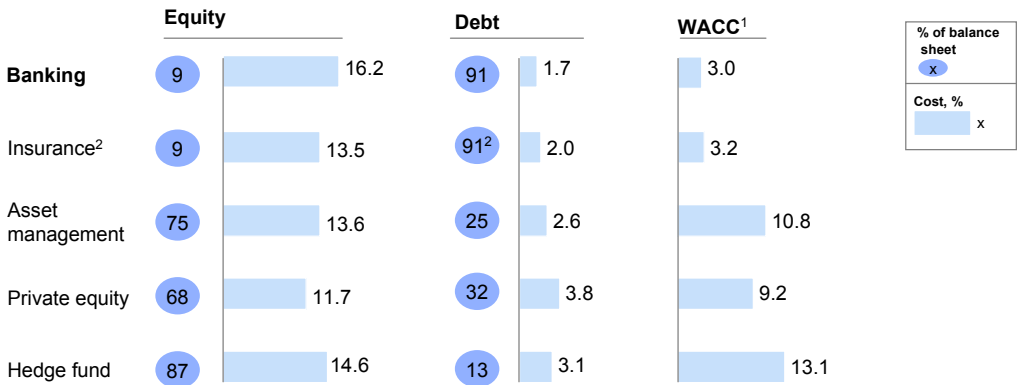
The right buyers can be short-listed quickly by looking at their funding situation and capacity. For example, looking at loan-to-deposit ratios and funding costs for the major banks globally shows that US and Asian banks are the most likely purchasers of European banking assets (Exhibit 5). Pursuing buyers without funding capacity will likely yield no results.

The rule implies that sales to private-equity firms and other alternative investors will be difficult; not only is their cost of capital higher, but their expectations for returns also are greater. Typically, alternative investors will be interested only in substantially discounted portfolios. However, firms have come up with some creative ideas in recent years. As an example, Lone Star Funds has made investments in two ways:

- It acquired entire distressed banks—including Corealcredit Bank AG in 2005 and Düsseldorf Hypothekenbank in 2010—at substantial discounts, creating value through quick improvements in the business and using these banks’ stock of debt funding to lower its overall cost of capital.

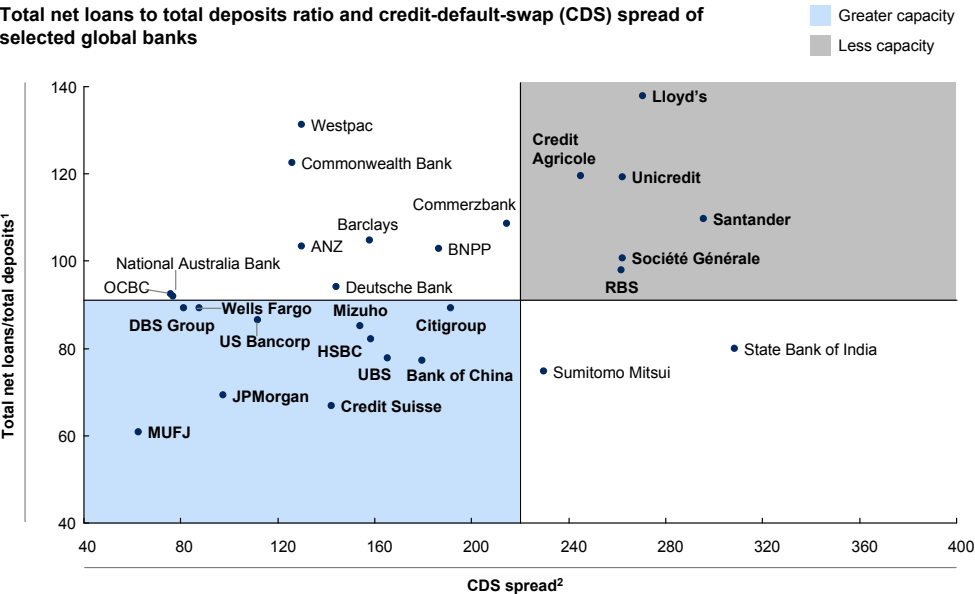
Exhibit 4 Structurally, banks are still the best owners for banking assets.

Balance sheet structure of several financial sectors



1 Weighted average cost of capital.
2 Assumptions for insurers' balance sheet: 5% debt at an average interest rate of 2.3%, 46% life-insurance premiums at an average interest rate of 4%, and 40% property and casualty and other premiums (no cost).
Source: Bloomberg; McKinsey analysis

Exhibit 5 US and Asian banks have the greatest capacity to acquire assets.



1 Latest available data (December 31, 2011, for most banks).
2 Midrate 5-year spreads vs relevant benchmarks (US Treasury and LIBOR/EURIBOR, as of March 15, 2012; Mitsubishi UFJ; DBS Group and US Bancorp, as of September 27, 2011).
Source: Bloomberg; Datastream; annual reports

- It acquired portfolios of assets, for example, in 2008, when it bought a collateralized-debt-obligation portfolio from Merrill Lynch, taking advantage of 75 percent staple financing provided by the seller.

In preparing for the sales process, the bad bank must carefully consider how it slices and groups its portfolios to make them attractive for potential buyers, and then prepare the required data tapes.

Throughout the sales process, the bad bank must continue to present itself carefully. In the words of one executive, “It was essential that we not appear to the market as a ‘forced seller.’” To do that, the bank must have adequate time to sit and wait for market opportunities and must have a strategy that allows for flexible reaction to changing market conditions.

3. Workout

“Actively communicate the objective of a fast wind-down at a minimum loss and model the right behaviors”

In bad banks, workout should begin much sooner than it does in ordinary banks; assets should be transferred to workout at the first sign of trouble. And because it has no incentive to preserve the client relationship for future business, the bad bank can be much more assertive in its workout practices. We have seen several success factors in a workout of performing assets:

- **Actively communicate to borrowers that the loan is held by the bad bank.** Communications should highlight that the only goal is the repayment of the loan. Banks should increase interest rates whenever possible (for example, if covenants are breached) to promote early repayment (lowering RWAs and capital requirements), and they should hold regular discussions with borrowers to encourage their search for alternative financing. In one case, a bad bank successfully motivated some of its borrowers to find another bank with which to refinance and accomplished a significant deleveraging and decrease in RWAs well ahead of the original maturity date.
- **Don’t just react; prioritize and manage actively.** Bad banks should actively scan the portfolio, using standardized measures such as “expected loss” or “return on time spent on case” to identify high-impact assets. The goal is to identify a small number of assets that might yield the majority of the portfolio’s value and incur a significant percentage of RWAs, and to prioritize and manage these tightly. For example, at one bad bank, a loan was set to mature in three months. The bank approached the borrower to see if it could repay at maturity; it could not. The bank then negotiated and achieved a repayment of more than 70 percent of the principal on the maturity date, as well as an agreement for repayment of the balance within 10 months. Had the bank waited until maturity to begin negotiations, it believes that it would not have collected anything for a full year.
- **Ensuring the availability and quality of data is essential.** This includes data on every loan on the books, including the original transaction and all subsequent negotiations and interactions with the borrower, lawyers, and other investors. This is a prerequisite for all wind down–related operations (see the section on data quality and IT on p. 15).
- **Senior management should focus on enabling the workout team.** In many cases, the sole objective of the bad bank is a fast wind-down at a minimum loss, and the top-management team should back up this objective with words and actions. To promote the needed mind-set change, one bad bank made any request for additional financing a

decision for the executive committee. Needless to say, applications dropped quickly, as credit officers began to push borrowers to find alternative financing.

- **Banks must ensure that portfolio managers have the right mind-set.** Knowledge of the borrower and of the history of the relationship is desirable, which speaks in favor of using existing officers as bad-bank portfolio managers. But there are also some disadvantages to retaining the same team (see the section on people and incentives on p. 13). At one bad bank, the original credit officers struggled for many months to get anything done, but when loans were given to new portfolio managers for restructuring, they made significant progress in a few weeks.
- **Government-owned bad banks should use that fact in negotiations with borrowers.** Borrowers will rightly seek to avoid a conflict with the government. During a portfolio sales process, a broker executing a portfolio sale for a bad bank successfully used this tactic and convinced borrowers (who had other dealings with the government) to drop their opposition to the sale of their loan.

4. Asset-liability management and funding

“Take hedging and funding considerations into account with each portfolio decision”

Management of the balance sheet, especially the liabilities side, is even more important to the success of the bad bank than to its business-as-usual peers. Because the bad bank has a fixed portfolio of assets, its choices about liabilities offer the greatest scope for value creation. Today, this arena of operations is becoming even more challenging: interbank markets are closing up once more, and the European Central Bank (ECB) is again becoming a major provider of liquidity.

Bad banks typically receive their assets without perfect funding: mismatches are found in duration, currencies, fixing periods, and so on. Managing the refinancing and other risks presented by these mismatches, and especially reducing open (that is, unfunded) positions to an acceptable predetermined amount, is at the core of the treasury activity of a bad bank and should be started immediately after the initial setup.

Within this core, four interrelated activities are especially important: asset-liability management (ALM), funding, hedging, and ensuring adequate access to capital markets.

In a going-concern bank, *ALM* and *funding* can be done quite independently, using funds-transfer pricing and clear limit systems. But in the bad bank, tight coordination is needed among portfolio management, treasury, and the asset-and-liability committee. Every potential deal to sell or restructure assets should prompt a review of the hedges and funding associated with those assets. The “breakage” costs of unwinding hedges and funding should factor into the sale or restructuring decision. And the treasury will need to be sufficiently flexible, so that it can react quickly as assets are sold or restructured.

Hedging also differs at the bad bank. Imperfect hedges can have material impact on sale or redemption of the asset. If a sale is made below book value but the position is hedged at full book value, then the surplus hedge will constitute an open and potentially costly risk position.

There are a few other differences with regards to funding and hedging. Most obviously, the portfolio is often more complex and always of much lower quality. This has some subtle implications. Everyday assumptions, especially those that are simply imported from the core bank, may not be accurate. For example, for some of these structured products, perfect hedges might not be possible. And lower quality means that the bank will impair assets more often and for larger amounts, which will affect funding needs, and, as noted, require rapid corollary moves to reduce funding and lift hedges, lest the bank wind up “overhedged.”

Another difference is that bad banks, especially those with healthy *access to markets*, can run a duration gap and benefit from maturity mismatch. Perfect maturity matching likely is not feasible, given the difficult markets, and to match perfectly would lessen the bank's flexibility and thus its ability to make asset sales. One final note: many bad banks, particularly those with government support, can get by with a smaller liquidity buffer.

B. Operating model

5. Organization

"Focus resources on portfolio-related activities, leverage the core bank where appropriate, and keep other functions lean"

A bad bank will always want an independent management and governance structure. But it may want to share the lower levels of the organization with the core bank from which it sprung. The extent to which the core bank's team is shared is one of the first organizational design choices, and, as we discuss in the next chapter on outsourcing, will vary considerably.

Few bad banks will want to borrow the entire organizational model from the core bank, as the two institutions are fundamentally different. Merely applying the blueprint from the universal bank does not work. We see two major differences:

- **An emphasis on product and wind-down expertise.** Normally, banks organize front-office teams around their major client groups and strive to provide tailored client coverage. Direct contact with clients is still important for the bad bank, but there is no sales imperative and no need for large sales teams. For most clients, contact can be maintained by one or two people; workout cases can be transferred to workout teams, which, along with credit and portfolio management, will dominate the bad-bank structure. Other structures commonly used in core banks, organized by product type or region, will also be unhelpful for the bad bank. Instead, most will seek to organize around the different wind-down strategies in use, while keeping product and country experts elsewhere within the organization. Some bad banks have dedicated portfolio-sales and asset-structuring teams to hasten the wind-down. This focus on portfolio-related activities should also be reflected in the composition of the executive committee, with a strong representation of wind-down and workout expertise.
- **Full compliance, kept simple and lean.** Bad banks must of course comply with regulatory requirements, but there are exceptions and simplifications that should be explored when defining the organizational structure. Many compliance-related functions, such as risk management, controlling, legal, and others, can be significantly streamlined. For example, some bad banks that are relieved from regulatory requirements can safely dispense with economic-capital models and sophisticated capital-allocation processes. In some cases, all the compliance-related teams can be consolidated to form a shared service for the portfolio teams. Overall, bad banks should focus on having active managers supported by much smaller teams than core banks use for day-to-day management and execution.

6. Outsourcing

"Investigate outsourcing of noncore activities, but consider the limited lifetime of the bad bank"

Bad banks have to start operations in a hurry; their book of business is already in place. Whether the bad bank is an internal division or is legally separate, it will typically depend on its core bank personnel, IT, and systems, at least for a time. Internal bad banks are often happy with this arrangement, while external bad banks often want to become independent from the core bank to persuade investors, governments, and the public that they are stand-alone operations in both principle and practice, thus allowing the core bank a fresh start.

Outsourcing is thus a natural consideration and should be investigated thoroughly. However, any outsourcing must be weighed against the expected lifetime of the bad bank; if the plan is to wind everything down in, say, 5 to 10 years, then

broader outsourcing of activities might not be worthwhile, given the related migration costs and operational risks. On the other hand, if the bad bank has selected long-dated subportfolios, it might consider outsourcing the management and maintenance of such assets.

Those banks that want to go forward should do three things:

- Identify the activities they can safely entrust to others.
- Find the right servicers to give these activities.
- Manage the handover effectively.

On the first point, the final choices—what functions to keep and what to outsource—will vary substantially from bank to bank. Many will want to make a distinction between dedicated services that are specific to their bank and commodity services that are standardized and can be outsourced easily. (For one bank's experience, see "Designing and operating a bad bank: Lessons learned" on p. 14). However, there are a few activities that will likely appear on the two lists at many banks:

- **Need to keep.** This includes portfolio management, strategic and wind-down planning, treasury and risk management, and interaction with regulators and other stakeholders.
- **Potential to outsource.** This includes substantial parts of operations and IT, data maintenance, and analytics.

Finding an appropriate servicer can be difficult. Bad banks bailed out by taxpayers are often expected to keep jobs within their home countries, while outsourcers will want to offshore as much as possible. And outsourcers naturally prefer to use their own IT platforms, but these are unlikely to have the capabilities required by bad banks' unusual and complex set of assets.

Furthermore, banks will want ideally one, or at most two or three, servicers so that the costs and risks of managing these providers can be minimized. But in reality, even though some servicers will promise a comprehensive suite of services, bad banks will usually need several servicers, as their needs are too complex and the provider market is too fragmented.

Among the various servicers, financial institutions are a special case. Some banks are currently trying to build a business model to provide extensive services in the management of noncore and distressed assets for third parties. However, this presents conflicts, as these banks are probably already involved with the bad bank, for example, as counterparties to various transactions and hedges. They are also potential buyers of the bad bank's assets and in fact are probably more interested in the assets than the operations.

7. People and incentives

"Attracting and retaining the right talent is vital; offer financial incentives and an attractive career path for at least the next few years"

The key decision on talent is whether to retain current staff or hire from outside the bank.

In general, and especially if a bad bank remains tied to its core bank, the bad bank tends to stick with its people. This is a natural choice, as it would take a long time for a completely new management team to settle in, get sufficient knowledge of the portfolio, define processes, and get started. And it can be quite difficult to find an experienced staff that knows

the intricacies of the asset classes, is well connected in the market, and is interested in working at the bad bank. As one executive at a US bad bank said, “The ability to retain highly qualified staff is a key success factor, especially if your objective is to run down a large portfolio of risky and complex products.” In some cases, however, where the bad bank is legally and operationally separate from the core bank, it may want to recruit new talent, especially in portfolio management, to get a fresh start with these troubled assets.

RBS’s Non-Core Division chose to source most of its staff from its core bank. It retained portfolio-management teams that it thought were likely to succeed (see “Setting the pace,” p. 6). And it recruited external talent for specific senior roles where it thought change was necessary. RBS has a few core beliefs:

- The staff’s knowledge of the bank’s assets and the relationships that staff members have with their clients are critical to the successful execution of RBS’s strategy.
- Governance structures can be strengthened with appropriate controls and with incentives to address the conflicts that arise when portfolio managers are asked to undo their earlier work.
- Through incentives and other means, a competitive career path can be provided for the next five years.

This emphasis on their current staff allowed RBS to begin its wind-down immediately.

In contrast, bad banks that are owned even in part by the government, such as NAMA, FMS, and EAA, hired their staff primarily from the market. These banks felt it was critical to formally signal a clean break with the past. Bad banks that have successfully brought in new talent have deployed some creative ideas. One is to seek out people at the end of their career, lifelong bankers who want to contribute their experience and knowledge to the rebuilding of the system. Another is to recruit young and ambitious professionals for whom a position at the bad bank represents a step up—one that, on their current career track, they could not reasonably expect for several years. A combination of veterans and young talent can result in a very successful and motivated team.

Financial incentives are an important factor to attract and retain the right talent. Ideally, incentives should be linked to both wind-down targets (such as speed of deleveraging and value maximization) and individual performance. But variable remuneration and bonuses are not possible at some government-supported bad banks or in cases where the core bank received government support. As a result, many bad banks emphasize nonfinancial or intangible benefits and incentives. Rotational programs and trainings are attractive to many junior staff. Providing support for the eventual transition, either back into the core bank or into the market, is another service that staff value highly.

8. Data quality and IT

“Data is king—invest the necessary resources up front in data availability and quality”

Data quality is of utmost importance. It is critical to allow effective portfolio management, to support the right hedging and funding decisions, to create reliable financial accounts, and to allow successful and fast portfolio sales (see the section on portfolio sales on p. 7).

Bad banks, whether internal or separate legal entities, will at least initially rely on the IT systems and infrastructure as well as the data provided by the core bank. Yet the quality of these IT systems, data, and infrastructure is often poor. For that reason, the bank should start by investing significant resources in a program of tactical data cleansing. This begins with a reconciliation of original credit applications and subledger records and will require, on average, three to four hours for

Designing and operating a bad bank: Lessons learned at FMS Wertmanagement

Frank Hellwig is chief operating officer of FMS Wertmanagement (FMS), the largest German wind-down agency, established in Munich in 2010 to wind down the assets of Hypo Real Estate. FMS is a public law agency and is supervised by the Finanzmarktstabilierungsanstalt, the state agency founded to oversee German state aid for financial institutions. We interviewed Frank in the fall of 2011.

What are your overall principles for the operating model?

The FMS has been set up with a clear objective: to wind down its portfolio in an efficient way over a 10-year time frame with the lowest possible losses. Everything we decide follows this principle. It implies that we have the right specialist skills where necessary and at the same time work as cost-efficiently as possible. This means that not everything needs to be done in-house, only the most critical operations.

What role does outsourcing play for the FMS?

Leveraging the expertise of professional external service providers plays a crucial role for the FMS in achieving its objective. It allows the organization to focus on its core activities and important value-creating decisions while benefiting from the external know-how and economies of scale for all noncore and commodity activities. For example, standard banking operations (payment services, settlement, and so on) and IT are typical activities that can be outsourced, while portfolio decisions, treasury, wind-down plans, and the management of a central data repository are core and therefore kept in-house.

When defining which activities to outsource and which activities to keep or in-source, banks should consider several criteria, such as quality, control, know-how, availability, compatibility, pricing, and timing. Potential conflicts of interest among outsourcing partners should also be taken into account, particularly with regard to portfolio-management decisions.

What are your lessons learned for other bad banks?

Setting up a bad bank—as silly as it sounds—is like creating a start-up. It is not a transformation of an existing bank. You have to deal with all kinds of issues, as typical start-ups do. Setting up operations, attracting and retaining the right people, understanding your portfolio, ensuring data availability and quality, talking to investors, rating agencies, and regulatory bodies, and so on.

And as with a start-up, getting off to a good start is important. Selecting the right people for the job and creating a motivational and entrepreneurial atmosphere are crucial—there is a lot of work to be done in the beginning. But unlike a start-up, our objective is not to grow but rather to shrink over time, which creates additional challenges in creating a scalable operating model and in people management. Ensuring an attractive career opportunity for a few years is crucial to retain the right talent over the lifetime of the institution.

each loan and one to two hours for each hedge; the main task is to establish the counterparty. Other transactions should also be reconciled; bond purchases, for example, require one to two hours. Assuming a typical portfolio of thousands of loans, bonds, and hedges, this tactical data cleansing will require several months of work for 20 to 30 full-time staffers and vigorous project management.

As the portfolio is being scrubbed, banks should also address underlying causes, especially weak processes, flawed data governance, and weak IT architecture. This will help keep the bank's books clean as sales are made. Typical initiatives include creating a dedicated function to manage data quality, defining key performance indicators for data quality and data-entry validation processes, and consolidating and centralizing reference data.

In the midterm, bad banks should also explore options to simplify their IT platforms, separate them from the core bank, and potentially pursue outsourcing.

C. Regulatory strategy and communications

9. Banking license and legal status

"Consider regulatory simplifications where available"

When bad banks are conceived as separate legal entities, a decision must be made about legal status. The first step is to understand if the home country or any other jurisdiction in which the bank is active requires the bank to hold a banking license. The need for a banking license is likely if the bank wants to retain the ability to roll over some loans at maturity for borrowers that cannot pay them off, say, or if it wants to increase a loan to a real-estate developer so that a new building or project can be completed.

Even if a banking license is not required, it might be wise to seek one. The benefits of holding a banking license include the following:

- It can improve an institution's ability to access capital markets directly (by issuing covered bonds, for example), resulting in lower funding costs.
- It can provide direct access to central-bank funding, that is, the ability to pledge government bonds, covered bonds, and other securities for central-bank funding.
- It can allow an institution to hold deposits (a limited benefit, as it is normally not practical to originate deposits).

For governments that own bad banks, another benefit is that, with a banking license, the bad bank might be classified by the ECB as a monetary financial institution, and so its assets and liabilities are not added to the government balance sheet, according to current Eurostat rules (though these may be revised in the first quarter of 2012).

Instead of a banking license, it might also be possible to obtain a special legal status for bad banks in some jurisdictions. One example is Germany, where the legal status *Abwicklungsanstalt* (wind-down agency), which both EAA and FMS have received, conveys significant benefits. Most important, it provides some relief from major regulatory and legal frameworks for banks. Some standards from the German Banking Act, for example, capital requirements, are applied only in part to *Abwicklungsanstalten*. A special legal status can also ease funding; in Germany, the status benefits from loss coverage by the former owners of the core bank, and in some cases might even carry primary or subordinate loss coverage by a government agency.

10. Stakeholder management

“Actively communicate the bad bank’s mandate and business model to rating agencies, investors, and the public”

Good banks are used to dealing with a broad set of stakeholders—shareholders, employees, regulators, ratings agencies, and the public. Bad banks have a similar or even more diverse group to attend to. In addition to the ordinary banking supervisors, for example, there are often several state bodies and regulators involved. Moreover, relationships are more complex to manage, as many stakeholders naturally have no experience in dealing with bad banks.

Proactive and transparent communication, especially early in the process, is critical to help stakeholders understand the new entity’s mandate and business model. The challenge here is to provide the necessary transparent communication to the owners, regulators, and government bodies involved while also retaining the degree of autonomy needed for successful portfolio management. EAA and FMS have found a position on this trade-off in which they involve their stakeholders very closely. In the typical German two-tier board structure with a supervisory and executive board, a regulatory official might even sit on the supervisory board (for more on EAA’s stakeholder-management practices, see “Working with stakeholders to improve managerial decisions within the public mandate,” p. 17).

In other cases, such as at one bad bank in the United States, stakeholders are kept informed but do not participate in the bank’s management. This bad bank has strong principles of governance that empower management to fully focus on the portfolio. As part of this trade-off, this bad bank has accepted that some stakeholders, such as the press and a few government agencies, will sometimes disapprove of its approach.

The relationship with rating agencies and investors is especially important for bad banks that are part of a government scheme and still need to fund themselves, as is the case for EAA and FMS. It is extremely important for such banks to communicate their business model and capabilities clearly, openly, and proactively. Only by doing so can they hope to obtain a good rating, ensure investor confidence, and make full use of their funding advantage (thus relieving the core bank of the funding burden).

One other group of stakeholders that the bad bank must actively manage is creditors of the transferred assets. Creditors might be tempted to stop repaying their loans when they receive the notice of the transfer to the bad bank. Active communication and decisive actions to positively influence creditor behavior are therefore a prerequisite for successful portfolio management (see “The outlook for bad banks” on p. 18).

Even under the more positive scenarios, much of Europe will face sovereign downgrades, many years of sluggish economic growth, and a recession in 2012 (Indeed, the eurozone economy contracted in the fourth quarter of 2011). In the more negative scenarios, a restructuring of sovereign debt in some eurozone countries and even a breakup of the eurozone are possibilities. In every scenario, banks will continue to labor under significant stress.

One clear difference between the events of 2007–09 and those of 2011–12 is the nature of the affected assets. Before, it was mainly loans and structured credit; today, it is weak sovereign debt. All banks hold substantial stocks of government debt; a significant deterioration of sovereign credit will affect many other asset classes.

Another difference is the diminished capacity of most countries to provide more state aid to their banking systems. In a kind of vicious cycle, further support of banks will add to government debt, weakening the country’s ability to repay and putting its sovereign rating in danger—thus further impairing the assets that are dragging down the banks.

Working with stakeholders to improve managerial decisions within the public mandate: Lessons learned at Erste Abwicklungsanstalt

Markus Bolder and Matthias Wargers form the managing board of Erste Abwicklungsanstalt (EAA), the German agency established in Düsseldorf in 2009 to wind down assets from WestLB. EAA and WestLB are both partially owned by the federal state of Nordrhein-Westfalen and several associations of savings banks. EAA is supervised by the Finanzmarktstabilierungsanstalt, the state agency founded to oversee German state aid for financial institutions. We interviewed Markus and Matthias in the fall of 2011.

What is special about stakeholder management at EAA? How does it differ from a normal bank?

All bad banks, but especially those founded with state aid, have a public mandate. They need to take political and public interests into consideration, as they need to focus on economic and entrepreneurial actions. As a board, we want our employees to focus on their core capabilities—economically motivated decision making to maximize the value of our portfolio and fulfill our entrepreneurial mandate. Our role is to provide them with the space and backing for entrepreneurial actions and to communicate the public mandate and political perspective when explaining our decisions to our owners and the different regulatory and government bodies involved.

We do this by being very open and transparent about the portfolio performance and our decisions. We grant far more access and participation rights to our supervisory board and to representatives of the regulator than any bank. For example, we proactively involve our supervisory board in material portfolio decisions and invite the regulators to participate in most board and committee meetings.

How has the mandate for stakeholder management developed since EAA was first set up?

The focus in the foundation phase was (1) establish a trust-based personal relationship with the different stakeholder groups and (2) create a common understanding of the specific mandate of EAA as a bad bank. This was especially important in our early interactions with rating agencies and investors. As we were the first wind-down agency in Germany, we had to explain the specificities of our business model and especially our strong creditworthiness to obtain a good rating.

While this is still an important element of our external stakeholder management, the focus has shifted to a standardization of processes, especially internal and external reporting processes, formats, and key performance indicators.

The outlook for bad banks

Governments in countries that are still comparatively strong might bail out their troubled banks through a second round of recapitalization, liquidity guarantees, and the transfer of more troubled or nonstrategic assets to existing or newly established bad banks.

For banks in countries that have already exhausted their debt capacity, a different and more systemic solution may be needed. In Europe, the European Financial Stability Facility (EFSF) could be such a vehicle. The recent initiative by the ECB to grant three-year loans to banks is an additional support. However, in the more adverse scenarios, the EFSF would likely not have the capacity to support the whole banking sector in troubled countries. While it might extend its support to “systemically important” banks, other banks may need to be wound down.

In addition, many leading banks are setting out to reshape their business models and significantly deleverage their balance sheets. This will nourish a need for structured solutions to manage down or divest nonstrategic assets. Often an internal ring fence or even an external bad bank might be the right solution to refocus the management team of the core bank and lay the groundwork for a successful wind-down of the nonstrategic portfolio.

In every case, the reality is that bad banks look likely to grow in number and size. New ones will be needed, and current ones might be used to support further deleveraging, including a holistic restructuring of some countries' banking sectors. Under these conditions, it will become even more important to set up those bad banks for success and implement the lessons learned from the recent experience.
























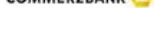
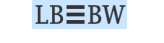


Given the challenging macroeconomic outlook, many more banks will be forced to reshape their business models, acknowledging the challenges and thinking about ways to divest assets that might put their business model in danger over the next several years. To paraphrase Winston Churchill, many will find that the bad bank is the worst solution, except for all the others.

Appendix

The following tables present an overview of most major bad banks worldwide from 1992 through 2011, followed by a more detailed look at the national bad-bank programs established in 2009 and 2010.

Appendix A A catalog of bad banks, wind-down divisions, and legacy assets.

NOT EXHAUSTIVE

Location of bad bank	Year of establishment	Bad bank/bank	Transferred assets ¹ € billion	Current assets ² € billion	% wound down (Dec 2011)	Description of transferred assets	External	State scheme	Wind-down complete?	Operating-model description
	1995	Consortium de Réalisation 	30.0 ³	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming loans Nonstrategic loan business 	✓	✓	✓	<ul style="list-style-type: none"> CDR initially under control of Credit Lyonnais Separation by EU law in 1995, then legal entity (state agency)
	2008		53.6	33.3	~17.3	<ul style="list-style-type: none"> CDOs of RMBS RMBS/CMBS European, US, or Australian ABS 	✗	✗	✗	<ul style="list-style-type: none"> Centralized management Separate subdivision (within CIB)
	2009	 	31.0	6.5	~46.0	<ul style="list-style-type: none"> Noncore CIB activities (2008) Runoff activities from BPCE (2009) 	✗	✗	✗	<ul style="list-style-type: none"> Separate internal unit of Natixis (CIB entity of BPCE) Reporting to executive management of BPCE Internal expert teams to run off assets External advisers for valuation of assets
	2008	Royal Park 	20.5	14.0	~16.2	<ul style="list-style-type: none"> Structured-credit portfolio 	✓	✗	✗	<ul style="list-style-type: none"> All functions are managed internally (eg, portfolio and general-management front office, treasury) Portfolio-management advisory via PMAC; members are from BNP and Belgian Debt Agency)
	2009	National Asset Management Agency  	71.2	72.3 ⁴	1.2	<ul style="list-style-type: none"> Individual loans Properties as securitization 	✓	✓	✗	<ul style="list-style-type: none"> External solution: independent commercial entity Own board, management for majority (~85%) of bad assets by NAMA itself NTMA provides staffing and shared services in IT, HR, finance, and risk Other outsourced activities: loan administration, financial and management information on the portfolio, management systems
	2008		37.0	n/a	n/a	<ul style="list-style-type: none"> Nonperforming loans 	✗	✗	✗	<ul style="list-style-type: none"> Internal asset managers External specialists in legal, economic, financial, and tax
	1988		~1.0	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming commercial and real-estate loans 	✓	✗	✓	<ul style="list-style-type: none"> Independent bad-bank organization Separately traded Operated by independent board and management team
	2009		~160.8	39.8	~46.2	<ul style="list-style-type: none"> Loans, leases, and letters of credit Securities at AFS/HTM Consumer and SME 	✗	✓	✗	<ul style="list-style-type: none"> Legally separated from Citicorp Independent entity within Citigroup Assets protected by US Treasury
	2002–3		35.5	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming loans Nonstrategic loan business 	✗	✗	✓	<ul style="list-style-type: none"> Separate internal unit: institutional restructuring unit Independent active exit management
	2006		20.7	n/a	n/a	<ul style="list-style-type: none"> Nonperforming loans SPLs Nonstrategic assets CRE/other real estate 	✗	✗	✗	<ul style="list-style-type: none"> Foundation of an internal division: special credit portfolio Allocated to the business segment "others/consolidation" Supervision by risk management
	2009		77.5	56.5	~18.1	<ul style="list-style-type: none"> Loans and bonds Phoenix portfolio Nonstrategic assets 	✓	✓	✗	<ul style="list-style-type: none"> Separate legal entity (state agency) Regulated by FMSA Use of WestLB as servicer
	2009		77.0	54.0	~20.1	<ul style="list-style-type: none"> Loans (56%), capital market products (44%) (as of December 31, 2010) 	✗	✓	✗	<ul style="list-style-type: none"> Internal restructuring unit Separate management with direct reporting line to board
	2009		67.2	31.0	~32.0	<ul style="list-style-type: none"> Credit investments Selected structured financing Parts of noncore credit portfolio 	✗	✓	✗	<ul style="list-style-type: none"> Internal restructuring unit as a separate business division The division has its own responsible member on the management board Central functions and group-wide management are engaged in the operations
	2009		~38	11.2	~41.7	<ul style="list-style-type: none"> Nonstrategic assets (ABS) Bonds and loans CDS and tranches of pooled CDS 	✗	✓	✗	<ul style="list-style-type: none"> Internal restructuring unit as an independent business segment Own operating unit The unit is responsible for active management of downsized portfolios
	2009		70.5	40.5	~29.6	<ul style="list-style-type: none"> Credit derivatives: 32% Securitization: 36% Securities: 32% 	✗	✓	✗	<ul style="list-style-type: none"> LBWB developed a restructuring plan to fulfill requirements of the EU Commission
	2010	 	175.7	160.5	~11.4	<ul style="list-style-type: none"> CRE: 11% Workout: 4% Infrastructure: 10% Structured products: 25% Public sector: 50% 	✓	✓	✗	<ul style="list-style-type: none"> Financially and legally independent public-law entity within FMSA (state agency) Regulated by FMSA and BaFin Decision-making authority and portfolio responsibility remains with FMS WM Portfolio services/management of risk assets, accounting services, IT infrastructure, and administrative tasks related to wind-up activities outsourced to HRE Group Separate legal entity: use of pbb⁷ (former HRE) as servicer

¹ As of establishment or asset-transfer date of respective bad bank.

² As of Q2 2011.

³ Inflation-adjusted value as of December 31, 2010: €41 billion.

Source: Central-bank Web sites; investor releases; press search

⁴ As of Q1 2011.



































⁵ As of establishment or asset-transfer date of respective bad bank.

⁶ As of Q2 2011.

⁷ pbb Deutsche Pfandbriefbank.

The following tables present an overview of most major bad banks worldwide from 1992 through 2011, followed by a more detailed look at the national bad-bank programs established in 2009 and 2010.

Appendix A A catalog of bad banks, wind-down divisions, and legacy assets.

Location of bad bank	Year of establishment	Bad bank/bank	Transferred assets ¹ € billion	Current assets ² € billion	% wound down (Dec 2011)	Description of transferred assets	External	State scheme	Wind-down complete?	Operating-model description
	2009	 The Royal Bank of Scotland	~270.0	100.5	~37.8	<ul style="list-style-type: none"> Wholesale banking Retail and commercial businesses Exotic derivatives, monoline, and ABS CRE 				<ul style="list-style-type: none"> Internal noncore unit Separate management with direct reporting line to board Internal service agreement with other functions to support efficient operating model of noncore
	2010	 UK Asset Resolution  Bradford & Bingley	~98.2	93.6	~6.3	<ul style="list-style-type: none"> Mortgages 				<ul style="list-style-type: none"> Legal entity, state-owned via UK Financial Investments Separate management with own board of directors Wind down the original balance sheets of the 2 nationalized banks
	1992-3	 SECURUM EQUIT PARTNERS  NORDBANKEN	~6-7 ³	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming assets (majority from the real-estate sector) 				<ul style="list-style-type: none"> n/a
	2008	SNB Stab Fund 	~28.3	n/a	n/a	<ul style="list-style-type: none"> Focus on mortgage-related products including securities and nonsecuritized loans 				<ul style="list-style-type: none"> External bad-bank solution owned by SNB SNB activities: management of the fund and definition of investment strategy UBS contribution: investment manager/ assets held at an independent custodian bank
	1992	Cooperative Credit Purchasing Company (CCPC) 	~122.4	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming loan Real-estate loans 				<ul style="list-style-type: none"> Setup and funding (€52 billion) through participating banks without government involvement CCPC bought bad loans from participants afterward
	1999	Resolution and Collection Corp. 	~70.7	n/a	n/a	<ul style="list-style-type: none"> Assets related to real-estate loans 				<ul style="list-style-type: none"> Merger of Resolution and Collection Bank and Housing Loan and Administration Corporation Focus on managing transferred and/or purchased assets from 7 <i>jusen</i>⁴ and failed financial institutions
	2003	Industrial Revitalization Corporation of Japan (IRCJ) 	~28.5	Wound down	n/a	<ul style="list-style-type: none"> Nonperforming loan Real-estate loans 				<ul style="list-style-type: none"> IRCJ almost exclusively owned by the Deposit Insurance Corporation IRCJ responsible for buying and restructuring bad loans

¹ As of establishment or asset-transfer date of respective bad bank.

² As of Q2 2011.

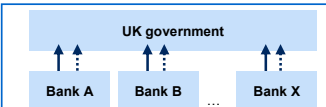
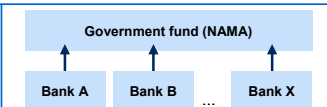
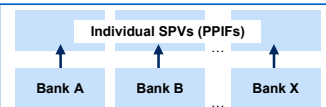



³ Inflation-adjusted value: €9 billion–€10 billion.

⁴ *Jusen* are niche housing-loan companies.

Source: Central-bank Web sites; investor releases; press search

Appendix B Recent national bad-bank programs.

2009 and 2010

	United Kingdom	Ireland	United States
Structure	 <ul style="list-style-type: none"> Asset Protection Scheme (APS) via Asset Protection Agency Additional UK Asset Resolution (UKAR) solution for 2 government-owned banks 	 <ul style="list-style-type: none"> Asset purchase 	 <ul style="list-style-type: none"> Guarantee scheme via Asset Guarantee Program
Scope	<ul style="list-style-type: none"> All risky assets 	<ul style="list-style-type: none"> Land and development and associated loans 	<ul style="list-style-type: none"> Focus on loans and real-estate-backed securities
Pricing/asset transfer	<ul style="list-style-type: none"> Guarantee premium paid by banks annually and an additional fee for exiting the APS Banks will capture agreed-on first loss and parts of second loss (10% on SLP) Scheme provides protection; assets remain on banks' balance sheets 	<ul style="list-style-type: none"> Assets were transferred to NAMA Acquisition of assets below book value (discount rate at 58%, as of December 31, 2010) Paid with Irish government bonds bearing a floating-rate coupon 	<ul style="list-style-type: none"> Financial instruments remain on the books of institutions but will be "ring fenced" US government received preferred shares (8% coupon) and warrants as fee from Citigroup and Bank of America
Operating model	<ul style="list-style-type: none"> Not specified due to different solutions <ul style="list-style-type: none"> APS: only guarantee, management remains at Royal Bank of Scotland (RBS) UKAR: separate management, own board 	<ul style="list-style-type: none"> Under the Nat'l Asset Mngmt Agcy (NAMA) NTMA¹ provides NAMA with support services (HR, IT, risk) Participating institutions (PIs) are required to manage NAMA loans within separate units PIs can be forced into mergers or takeovers 	<ul style="list-style-type: none"> Financial instruments will be managed by Citigroup and Bank of America directly US government required both banks to comply with an asset-management template
Volume²	<ul style="list-style-type: none"> £585 billion asset guarantee initially in 2009 £282 billion asset protection only for RBS assets after Lloyd's exited in November 2009 Capital injections: £68 billion (RBS and Lloyd's)³ 	<ul style="list-style-type: none"> Transferred assets: €71 billion (as of December 31, 2010) Government-capital injections: €46 billion (as of Q2 2011) 	<ul style="list-style-type: none"> Up to \$700 billion provided for equity injections and asset purchase within TARP⁴ in October 2008 Net usage: \$386 billion by end of 2009 Guarantee volume: \$419 billion
Participants			
Banking assets/GDP⁵	<ul style="list-style-type: none"> 2009: 413% 2010: 412% 	<ul style="list-style-type: none"> 2009: 1,038% 2010: 1,093% 	<ul style="list-style-type: none"> 2009: 87% 2010: 85%
Debt capacity⁶	<ul style="list-style-type: none"> 2009: 52% 2010: 61% 	<ul style="list-style-type: none"> 2009: 66% 2010: 96% 	<ul style="list-style-type: none"> 2009: 83% 2010: 92%

¹ National Treasury Management Agency.

² Rough estimates.

³ As of November 2009.

⁴ Troubled Asset Relief Program.

⁵ Total bank assets as % of GDP.

⁶ Government debt as % of GDP.

⁷ Not engaged in APS but use government-owned bad-bank UK Asset Resolution.

Source: Central-bank Web sites; press; Internet search

Appendix B Recent national bad-bank programs.

2009 and 2010

	Germany (SPV model)	Germany (consolidated model)	Switzerland
Structure			
Scope	<ul style="list-style-type: none"> Guarantee scheme Structured securities 	<ul style="list-style-type: none"> Government agency under German law No restriction concerning asset classes Possibility to transfer nonstrategic business units 	<ul style="list-style-type: none"> Asset purchase Mortgage-related products including securities and nonsecuritized loans
Pricing/asset transfer	<ul style="list-style-type: none"> Transfer of toxic assets to a newly created special-purpose vehicle; maturity: 20 years Asset transfer: 10% discount to book value as of June 30, 2008; transferred asset value is not allowed to be higher than book value as of March 31, 2009 Banks have to pay guarantee fees and additional annual fees corresponding to the difference between the transfer value and the probable value at maturity of the assets Loss realization by banks 	<ul style="list-style-type: none"> Asset transfer to independent agencies incorporated under public law Bank's obligation to pay compensation for losses incurred and funding responsibility Special financial-market stabilization funds' guarantee is only valid in connection with structured securities and agencies, which are under the roof of the Federal Institution for the Stabilization of Financial Markets 	<ul style="list-style-type: none"> Assets transferred to SPV SNB StabFund Acquisition value of assets determined by an independent commission (predominantly book value as of September 2008) Maximum equity UBS has to provide to the SPV amounts to \$6 billion (acquisition of an option, which gives the right to buy the SPV after SNB loans have been repaid) Remaining necessary funding is provided by SNB loans
Operating model	<ul style="list-style-type: none"> Private banks preferred internal solving units instead of using the offered bad-bank scheme from the government 	<ul style="list-style-type: none"> Agencies have own decision-making authority Banks act as portfolio managers/service providers (only allowed until 2013) 	<ul style="list-style-type: none"> SNB: fund management and investment strategy UBS: contributes as an investment manager Assets are held at an independent custodian bank
Volume¹	<ul style="list-style-type: none"> n/a 	<ul style="list-style-type: none"> Guarantees up to €400 billion² Recapitalization up to €80 billion² 	<ul style="list-style-type: none"> Asset-transfer offer November 2008: up to \$60 billion Transferred assets April 2009: \$38.7 billion SNB received stock options on UBS worth \$5.8 billion
Participants	<ul style="list-style-type: none"> n/a 		
Banking assets/GDP³	<ul style="list-style-type: none"> 2009: 317% 2010: 338% 	<ul style="list-style-type: none"> 2009: 317% 2010: 338% 	<ul style="list-style-type: none"> 2009: 587% 2010: 556%
Debt capacity⁴	<ul style="list-style-type: none"> 2009: 74% 2010: 81% 	<ul style="list-style-type: none"> 2009: 74% 2010: 81% 	<ul style="list-style-type: none"> 2009: 42% 2010: 43%

¹ Rough estimates.

² As initially planned in 2009.

³ Total bank assets as % of GDP.

⁴ Government debt as % of GDP.

Source: Central-bank Web sites; press; Internet search

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