

Weekly Report

German Bad Bank Plan: Government Should Take Over Toxic Assets at Zero Cost

With Germany's banking sector still suffering from the effects of the financial crisis, public discussion of plans to place toxic assets in one or more bad banks has gained steam in recent weeks. The following paper presents a bad bank plan from the German Institute for Economic Research. The key element of the plan is the valuation of troubled assets at their current market value—assets with no market would thus be valued at zero. The current shareholders will cover the losses arising from the depreciation reserve in the amount of the difference of the toxic assets' current book value and their market value. Under the plan, the government would bear responsibility for the management and future resale of toxic assets at its own cost and recapitalize the good bank by taking an equity stake in it. In extreme cases, this would mean a takeover of the bank by the government. The risk to taxpayers from this investment would be acceptable, however, once the banks are freed from toxic assets. A clear emphasis that the government stake is temporary would also be necessary. The government would cover the bad bank's losses, while profits would be distributed to the distressed bank's current shareholders. The plan is viable independent of whether the government decides to have one centralized bad bank or to establish a separate bad bank for each systemically relevant banking institute.

Under the terms of the plan, bad banks and nationalization are not alternatives but rather two sides of the same coin. This plan effectively addresses three key challenges. It provides for the transparent removal of toxic assets and gives the banks a fresh start. At the same time, it offers the chance to keep the cost to taxpayers low. In addition, the risk of moral hazard is curtailed.

Public discussion concerning the structural dislocation of the global financial system continues unabated. With the escalation of the financial crisis in the fall of 2008, many economists advocated internationally coordinated steps to recapitalize the banking sector. The recapitalization of distressed banks via public funds as well as the creation of bad banks for toxic assets were both proposed early on, yet the international community continues to debate potential solutions.¹ While a general

¹ cf. Zimmermann, K. F. 2008: "Coordinating International Responses to the Crisis", in Eichengreen, B., B. Richard (eds.), *Rescuing Our Jobs and Savings: What G7/8 Leaders Can Do to Solve the Global Credit Crisis*. The booklet is published on <http://www.voxeu.org/index.php?q=node/2340> and is documented in German in Schäfer, D. (Ed.): *Finanzmärkte im Umbruch: Krise und Neugestaltung, Vierteljahrshefte zur Wirtschaftsforschung 1-2009*, DIW Berlin, pp. 167-209. Zimmermann, K. F. et al.: *Europas Bankenkrise: Ein Aufruf zum Handeln. Führende Ökonomen rufen*

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JEL Classification:
G20, G24, G28

Keywords:
Financial crisis, Bad bank,
Recapitalization

consensus on the principles for the reorganization of global financial markets was reached at the G-20 conference in Washington D.C. on November 15, 2008, the implementation of concrete measures was not addressed until the G-20 conference in London on April 2, 2009.

Efforts to master the crisis have fallen short so far. Measures have been primarily implemented at a national level, if they have been implemented at all. As in many other countries, the bank rescue package in Germany has only been partially successful. The package's provisions for the sale of toxic assets have hardly been taken advantage of to date. The debate in Germany concerning the structural reforms necessary as a result of the crisis has drawn renewed attention to existing weaknesses such as the question of whether Germany needs another internationally competitive mega-bank or the still unresolved issue of the economic purpose of the 7 federal state banks (*Landesbanken*). These public banks are partly owned by either one or several German federal states and partly by savings banks.

Against this backdrop, it seems advisable to maintain a clear separation between the plans for the removal of toxic assets and the plans to address other structural issues. The necessary structural adjustments must soon be implemented at private and public banks; German banks must quickly regain their function as institutes which serve the real economy and as sources of credit, in order to counteract the cyclical downturn. At the same time, the creation of bad banks is becoming ever more necessary. The government must confront the problems at hand with a proactive industrial policy so that it can retreat from interventionist measures as quickly as possible.

A Weak Capital Basis

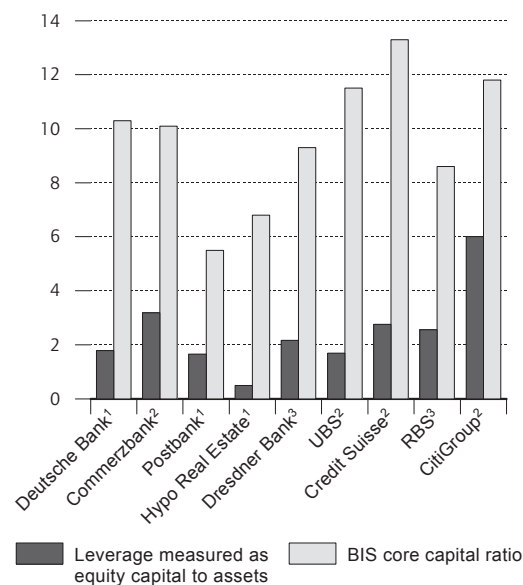
The capital bases of German banks are seriously endangered by the high quarterly write-down of asset values. A lasting return of confidence cannot be expected without the removal of the troubled securitized assets plaguing the system, which largely have their origin in the US mortgage markets. Figure 1 displays equity capital to assets and core capital ratios (in percent) for a selection of large banks. Figure 2 displays this data for a selection of German federal state banks (*Landesbanken*). Some of these banks have already accepted government assistance

Europa zu schnellem Vorgehen in der Finanzmarktkrise auf. Documented in the same issue, pp. 210-212. Sachverständigenrat: Jahresgutachten 2008/09: Die Finanzkrise meistern—Wachstumskräfte stärken, www.sachverstaendigenrat-wirtschaft.de.

Figure 1

Selected Commercial Banks

In percent



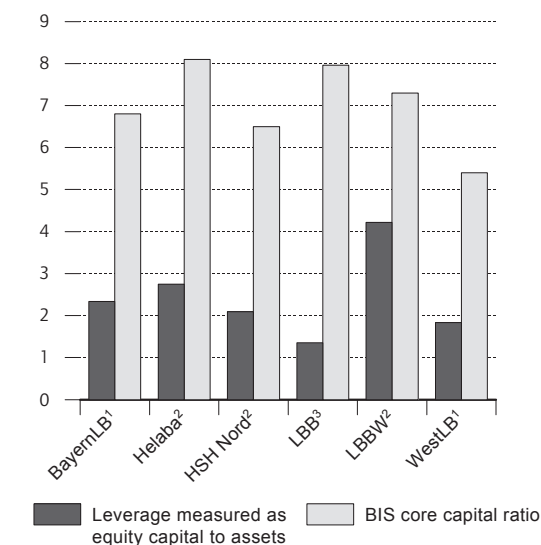
- ¹ Reporting date: 30 September 2008.
- ² Reporting date: 31 December 2008.
- ³ Reporting date: 30 June 2008.

Source: Data compiled by the DIW Berlin based on the most recent available financial statements. **DIW Berlin 2009**

Figure 2

Selected German Federal State Banks (Landesbanken)

In percent



- ¹ Reporting date: 30 September 2008.
- ² Reporting date: 30 June 2008.
- ³ Landesbank Berlin Holding.

Source: Data compiled by DIW Berlin based on the most recent available financial statements. **DIW Berlin 2009**

in order to stay above the minimum core capital ratio of 4 percent.²

According to the *Bundesbank*, the total capital including reserves held by all German banks is approximately 415 billion euros.³ Estimates of the total incurred losses from toxic assets vary at present between 200 and 300 billion euros—in other words, between 8 and 12 percent of German GDP. During the Swedish bank crisis in the early 1990s, write-downs amounted to more than 12 percent of GDP. Losses of this magnitude—by no means unrealistic in the present crisis—would seriously erode the capital bases of German banks.

Capital Shortages Limit the Ability of Banks to Provide Credit

The worsening capital position of the banks has a number of consequences with destabilizing feedbacks for financial markets and the real economy. Regulatory authorities in Germany are forced to close a bank if its core capital ratio falls below 4 percent. The threat of imminent bank closures is a source of insecurity for market participants and isolates the affected banks from capital flows. In addition, banks are forced to limit the amount of credit they provide if they lack the necessary equity capital. This increases the chances that companies outside the banking sector will have excessive difficulty obtaining credit for their operations. The US savings & loan crisis in the 1980s demonstrated that under the threat of bankruptcy, managers of over-indebted banks are prone to risky behavior in attempt to rescue their institutions from failure.⁴ Such risky behavior is known as “gambling for resurrection”. It may be encouraged by the fact that limited liability saves bank managers from incurring potential losses themselves.⁵

² Following the intensification of the financial crisis, many experts have advocated that a bank's core capital should comprise at least ten percent of its risk-adjusted assets. Financial experts view an equity capital to assets relationship of 4 to 5%, and thus a leverage ratio of 25:1 and 20:1, as acceptable for a credit institute. In recent years, leverage ratios of 30:1 for hedge funds have been normal. Nine months before its was shut down by the government in January 1998, the US hedge fund Long Term Capital Management had a leverage ratio of 25:1 (see <https://treas.gov/press/releases/reports/hedgfund.pdf>, p.12).

³ Consolidated balance sheet for German monetary financial institutions (MFIs) from the German central bank's European System of Accounts (see <http://www.bundesbank.de/download/statistik/bankenstatistik/S101ATIB01013.PDF>).

⁴ cf. Federal Deposit Insurance: The Banking Crises of the 1980s and Early 1990s: Summary and Implications, www.fdic.gov/bank/historical/history/3_85.pdf, see <http://www.fdic.gov/bank/historical/history/> (last update 6/5/2000).

⁵ Freixas, X., B. M. Parigi, J.-C. Rochet. 2003: The Lender of Last Resort: A 21st Century Approach, Working Paper Series 298, European Central Bank.

The Bad Bank Solution

The creation of one or more bad banks represents a way of overcoming this dilemma.⁶ A bad bank purchases or takes over troubled loans or securities and then attempts to restructure and manage these assets in a way that maximizes their value. Once the banks are freed from troubled assets and the need to constantly write down asset values, the negative effects associated with the threat of bankruptcy, a reduction in lending due to a lack of capital, and the readiness to take risks at the expense of creditors and the general public can be minimized or eliminated. However, bad banks do have two drawbacks. First, capital is needed to create a bad bank—potentially in very large amounts. Second, there may be considerable losses at the end of a bad bank's life. Additional costs will result if the conditions for the purchase of toxic assets represent an incentive for banks to rely on government bailouts in the future. Historical examples show a wide spectrum of different variants of bad banks. The particular plan that is selected determines the current and future expenses borne by taxpayers when the bad bank is established.

Historical Examples of Bad Banks

The special handling of troubled assets is not uncommon in the day-to-day activities of the banking world. For example, non-performing corporate loans are typically transferred to a work-out department. In the case of large loan amounts, the individual lenders form creditor pools in order to prevent coordination failures and a sudden withdrawal of lenders that can force a financially distressed firm into bankruptcy.⁷ In the past, work-outs have often resulted in loans being converted into share capital.⁸ A bad bank is essentially a work-out department on a much larger scale. When the illiquid assets on the banking industry's books endanger the entire financial system, a bad bank has often been the solution of choice.

At the end of the 1980s, more than 1,000 savings & loan institutions in the United States were threatened by insolvency due to financing with divergent matu-

⁶ Zimmermann, K. F. 2009: Letzter Ausweg bad bank? Commentary in Wochenbericht des DIW Berlin No. 6/2009.

⁷ Brunner, A. and J. P. Krahen. 2008: "Multiple Lenders and Corporate Distress: Evidence on Debt Restructuring", *Review of Economic Studies* 75(2), pp. 415-442. Hubert, F. and D. Schäfer. 2002: "Coordination Failure with Multiple Lending, the Cost of Protection Against a Powerful Lender", *Journal of Institutional and Theoretical Economics* 158(2), p. 256ff.

⁸ Schäfer, D. 2003: "Die „Geiselnhaft“ des Relationship-Intermediärs: Eine Nachlese zur Beinahe-Insolvenz des Holzmann-Konzerns", *Perspektiven der Wirtschaftspolitik*, 4(1), pp. 65-84.

rity dates in connection with high interest rates for depositors but comparatively low rates on mortgage lending.⁹ In 1989, the Resolution Trust Corporation (RTC)—a bad bank—was founded. The RTC was set up with government funding and to a limited extent with money from private investors. Between 1989 and 1995, the RTC took over 747 bankrupt S&Ls with a book value of 394 billion dollars. The S&L bailout cost US taxpayers a total of 124 billion dollars, 76 billion of which fell to the RTC.¹⁰

In the early 1990s, Sweden attempted to master its banking crisis with several asset management companies. The two most important bad banks—Securum and Retriva—were set up by the Swedish government. Some 3,000 non-performing loans that had been extended to 1,274 troubled companies were transferred from Nordbanken—which had been completely taken over by the government—to Securum. This corresponded to 21 percent of the bank's asset portfolio. Retriva, for its part, took over 45% of Gota Bank's assets shortly after the bank was nationalized.¹¹

Nordbanken, which took over Gota Bank in 1993, is known today as Nordea Bank, of which the Swedish government still holds a 19.9 % stake.¹² In 2007, the revenues from several sources, dividends, selling of stock and a rising value of the government's remaining equity stake, finally offset the cost of the bailout. That the bailout eventually paid for itself is attributable to the success of Sweden's bad bank plan in minimizing losses on troubled assets.¹³

In 2001, a Berlin bank known as the Berliner Bankgesellschaft was threatened with bankruptcy due to the returns it had guaranteed to real-estate fund investors. The *city-state of Berlin* prevented the closure of the bank's holding company—which also owned Berlin's federal state bank (*Landesbank*) and savings bank (*Sparkasse*)—by taking control of it and providing credit guarantees worth over 21.6 billion euros.¹⁴

⁹ More than 1,600 banks went bankrupt or required government assistance between 1980 and 1994.

¹⁰ Curry T. and L. Shibus. 2000: The Cost of the Savings and Loan Crisis: Truth and Consequences, FDIC Banking Review, www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf.

¹¹ Ingves, S. and G. Lind. 1996: The Management of the Bank Crisis—in Retrospect, Quarterly Review Sveriges Riksbank 1/1996, pp. 5-18.

¹² See <http://www.nordea.com/Investor%2bRelations/Nordea%2bshare/Shareholders/85732.html> (access on the 5th of May 2009).

¹³ Ketzler, R. and D. Schäfer. 2009: Nordische Bankenkrise der 90er Jahre: Gemischte Erfahrungen mit „Bad Banks“, Wochenbericht des DIW Berlin No. 5/2009, pp 87-99.

¹⁴ The city-state of Berlin provided 87.5% of the necessary capital increase of 2 billion euros. Berlin thus increased its stake from 56.6% to 80.95%. Parion, an insurer, saw its stake reduce following the capital increase to 2.27% (from 7.5%). The percentage of free-floating shares fell from 15.89% to 5.93% following the capital increase. [www.manager-](http://www.manager-magazin.de/unternehmen/artikel/0,2828,160057,00.html)

[magazin.de/unternehmen/artikel/0,2828,160057,00.html](http://www.manager-magazin.de/unternehmen/artikel/0,2828,160057,00.html). In 2006, the newly founded Berliner Immobilien Holding (BIH) took over several troubled real-estate funds.¹⁵ The former Berliner Bankgesellschaft was thus effectively separated into a bad bank (BIH) and good bank (Landesbank Berlin). In 2007, the city-state of Berlin managed to sell its 81% stake in the Landesbank Berlin for 4.7 billion euros. BIH has hitherto invested some two billion euros in the re-purchase of shares and the refurbishment and improvement of its properties.¹⁶ Additional investments are planned. The goal is to make its property inventory so attractive that potential buyers will be willing to take over the guarantees provided by Berlin.

Yet in recent years, ailing institutions have also made use of bad banks as a method for repairing the balance sheets without governmental interference. Between 2003 and 2005, Dresdner Bank transferred 35.5 billion euros in toxic loans and shares which had lost strategic relevance to a so-called Institutional Restructuring Unit (IRU).¹⁷ In 2008, WestLB, the Landesbank partially owned by the state of North Rhine-Westphalia, founded a consolidation vehicle named “Phoenix” in Dublin, Ireland. As an off-balance-sheet special purpose vehicle (without a banking license), Phoenix has already taken over assets with a book value of 23 billion euros. The owners have guaranteed these assets for five billion euros.¹⁸ In total, WestLB is planning to hive off assets with a book value of some 80 billion euros.¹⁹

Prerequisites for the Success of a Bad Bank

Realistically, it must be assumed that a bad bank will produce a loss in the end. If these losses remain low, they can be more readily compensated for by an appreciation in value in other areas—for example,

[magazin.de/unternehmen/artikel/0,2828,160057,00.html](http://www.manager-magazin.de/unternehmen/artikel/0,2828,160057,00.html).

¹⁵ According to an article in the February 2007 issue of the German magazine “Berliner Wirtschaft,” the takeover was finalized for the symbolic sum of one euro. The takeover included 29 closed funds with an original investment value of approximately 10 billion euros and more than 500 properties. The holding company had 26 employees including managers, while the real-estate investment companies controlled by the holding company employed a total of 517 people, www.bih-holding.de/bih/aktuelles/BlnWirtschaft_BIH_Febr2007.jpg.

¹⁶ cf. Börsen-Zeitung dated October 2, 2008. Berlin startet Verkauf der BIH Immobilien Holding, Investmentbank gesucht—Altlast der Bankgesellschaft.

¹⁷ <http://www.dresdner-bank.de/dresdner-bank/presse-center/archiv/2005/20050929a.html>.

¹⁸ Communication from the Commission on the Treatment of Impaired Assets in the Community Banking Sector, Annex 2, http://ec.europa.eu/competition/state_aid/legislation/impaired_assets.pdf.

¹⁹ According to Irish press reports, Dublin was selected due to tax considerations and the local availability of financial and restructuring expertise.

through the increased worth of a government stake in the rescued banks. The government has a good chance of recouping its investment in a bad bank if the following prerequisites are fulfilled:

- Troubled assets have been purchased/taken over at a low price
- Active management of these assets is possible
- Financial experts are involved who know how to deal with such assets
- Time is available
- A clear governance structure has been implemented

If a market price for an asset does not exist, then the bank being relieved of the asset has an informational edge over the buyer. In this state of affairs, “lemon market” effects are likely. An ailing bank will only transfer assets to a bad bank which have a value below the agreed-upon average price.²⁰ As a result, the bad bank pays inflated prices and generates losses. In this scenario, an excessive burden is also borne by the taxpayer in the recapitalization of the banking sector.

Active management necessitates the restructuring of the acquired assets. This includes conducting negotiations with debtors, debt rescheduling and, if necessary, debt reductions in order to avoid default. Clearly identifiable and accessible partners in the negotiation process are thus essential for the effective management of troubled assets.

Another key element in this regard is the creation of attractive investment packages for potential buyers, possibly with government financial support. If the government does not have sufficient access to specialized knowledge for the effective restructuring and management of assets, taxpayers may be forced to cover disproportionately high losses, despite a purchase price that accurately reflects the underlying value of the illiquid assets. Generally, the acquisition of financial experts for the formation of a bad bank is no simple task, as there is a shortage of individuals with the requisite expertise, even at the international level. The pool of individuals with experience in managing troubled assets is small.²¹

Fire sales to cover a shortage of liquidity may place downward pressure on asset prices and minimize

sale proceeds. If a bad bank lacks sufficient capital to wait for an opportune moment to sell its assets, it will incur unnecessarily high losses. Excessive costs for taxpayers can also be expected if a clear governance structure has not been defined (for decision-making, monitoring and accountability). The executive managers in charge of a bad bank should be able to conduct operations and make decisions regarding the sale or restructuring of assets autonomously, and without being absorbed by issues that only arise because of conflicts of interest between the government and banks.

Methods of Capitalization and Organizational Models

The amount of capitalization required by a bad bank is essentially determined by two factors: operating costs and acquisition costs. When a low price is paid for the acquired troubled assets, this not only minimizes the risk of future losses but also keeps the initial capital requirements of the bad bank low.

The source of financing determines whether the government or private sector provides the required start-up funding. The need for liquid funds depends on how the banks being freed of their troubled assets will be “paid.” Liquid funding is not immediately required if a “payment” is made with government securities. However, in this regard the amount of the write-downs and a possible need to re-capitalize the bank are contingent upon whether the book value of the distressed assets exceeds the book value of the government securities provided in exchange.

If the government provides 100% of the financing—whether in the form of liquid capital or government securities—future losses suffered by the bad bank must be borne first by the taxpayer. The greater the amount paid initially for the troubled assets, the higher the risk of future losses. The participation of the private sector in absorbing these losses can be achieved through negotiation once the bad bank’s final operating result is forthcoming. Alternatively, fixed terms for the distribution of losses can be agreed upon in advance. Such terms cannot foreclose all possibility of future renegotiation, however. In this way, the government is subject to the hold-up problem. This latent threat of potential ex post exploitation rises in direct relation to the amount of funding initially provided to establish the bad bank.²²

²⁰ Akerlof, G. A. 1970: “The Market for ‘Lemons’: Quality Uncertainty and the Market Mechanism”, *Quarterly Journal of Economics* 84(3), pp. 488-500.

²¹ The shortage of qualified experts is demonstrated by the recurrent involvement of Jan E. Kvarnström, the former director of the Swedish bank Securum. He managed Dresdner Bank’s IRU; according to press reports, worked on behalf of the German government to manage the sale of KfW’s stake in IKB; and helped to manage six billion euros in structured securities held by IKB, cf. von Buttlar, H. and N. Luttmer. 2009: *Der schwedische Bankenlotse*, *Financial Times Deutschland*, 24 January.

²² The “hold-up problem” is a term that is known from contract theory and from behavioral finance. See Williamson, O. E. 1979: “Transaction-Cost Economics: The Governance of Contractual Relations”, *Journal of Law and Economics* 22(2), pp. 233-62.

A bad bank plan can be implemented in a centralized or decentralized manner. Under a decentralized plan, each troubled bank is split into its own good and bad bank. Under a centralized plan, all distressed assets in the banking sector are deposited in a single bad bank. If one bad bank were established for each of the three main pillars of the German banking industry—i.e. for the credit unions, savings banks and private banks—this would also qualify as a centralized bad bank plan. Mixed solutions that combine private and public sector funding as well as centralized and decentralized organizational features are also conceivable.

Classification of Historical Precedents and Proposed Models

The table organizes known bad bank examples and current proposals according to the source of capitalization and organizational form. As the table shows, the majority of known bad banks have been established based on a decentralized organizational model. Retriva and Securum (Sweden) as well as BIH (Berlin) were founded through the subdivision of a bank threatened with insolvency into a good and bad bank. In all three of these cases, the government provided the funding for the bad bank and also recapitalized the good bank in exchange for a shareholder stake.

In each case, the distressed assets were also transferred to the bad bank in a single transaction. This effectively circumvented the need to engage in subsequent negotiations for the distribution of bailout costs. At the same time, a government stake in the good bank is necessary for losses to be recouped and for the possibility of a net taxpayer gain, or at least to break even, further down the road.

The Prerequisites for Success with Securum, Retriva and BIH

Sweden’s bad banks, Securum and Retriva, managed to limit losses on non-performing assets. A successful resolution also appears to be on the horizon for Berliner Immobilien Holding.²³ With the application of the principle that the stockholders should bear losses first, it was possible to secure relatively low prices for the acquired assets. This circumvented potential “lemon market” effects. At the same time, there were no incentives established for shareholders to rely on the expectation of

²³ The amount of money still to be invested in order to make the properties of BIH attractive enough for potential buyers is estimated to remain lower than the proceeds from the sale of Landesbank Berlin.

Table

Classification of Bad Banks According to their Capital Source and their Mode of Organization

Source of Capital	Public	Mixed	Private
Created as			
centralized bad bank (one bad bank for all ailing banks)	USA—S&L Crisis 1989–1995: RTC	Financial Market Crisis 2007/2008: Public Private Partnership	
mixed bad bank (neither centralized nor decentralized)	Financial Market Crisis 2007/2008: Bad bank model of the Association of German Banks: Unique account for each bank	Financial Market Crisis 2007/2008: Multiple, competing public-private partnerships (USA)	
decentralized bad bank (an ailing bank creates its own bad bank)	Swedish Bank Crisis 1992: Securum, Retriva Berlin—2001 near insolvency of “Berliner Bankgesellschaft”: BIH Financial Market Crisis 2007/2008: Phönix (West LB)		“Mini” Bank Crisis in Germany, 2003/04 in the aftermath of the “new economy” bust: IRU (Dresdner Bank)
Classification of Bad Banks According to the Way of Transfer	Purchase/Takeover of toxic assets		Exchange of toxic assets for secure bonds
	Swedish Bad Banks Securum and Retriva USA: RTC Berlin: BIH		Bundesbank proposal: Equalization claim with debtor warrant Association of German Banks proposal: Gov. securities and final accounting with fair distribution of burdens

Source: DIW Berlin.

DIW Berlin 2009

government assistance in the future. The partners involved in negotiations for the restructuring of the troubled assets were clearly identifiable and accessible, ensuring that assets could be managed actively and effectively. In Sweden and Berlin, the government drew on the expertise of external consultants with distressed asset management experience. The allocation of sufficient funding prevented the premature sale of assets at prices below their future market value. As both the good and bad banks were partially or completely in government hands in each case, no conflict of interest developed between the government and private banks. For this reason, it can be assumed that the management had considerable autonomy over operative decisions.

Proposed Models for the Current Crisis

The gray boxes designate proposed models for the current crisis. As the table shows, the proposals under discussion are all of a “mixed” form. In the US, the Geithner plan relies on public-private partnerships for the purchase of toxic assets. The

original US plan foresaw the creation of a central fund for the acquisition of distressed assets. The latest proposals involve numerous funds with mixed financing that may compete with each other to acquire assets from individual banks and government share capital.²⁴

The proposal made by the Association of German Banks (BdB), in which an account would be set up for each bank in need of assistance, is aimed at establishing a government-funded bad bank with a mixed organizational structure. It must be noted, however, that mixed solutions are particularly susceptible to conflicts of interest and unclear governance structures.

Model for a Public Bad Bank

Objectives

A public bad bank must be in a position to address numerous challenges. First, the transparent removal of troubled assets is necessary in order to ensure that the rescued bank has real prospects for a fresh start. Second, the costs of the bailout for the taxpayer should be minimized. Third, no incentives or new opportunities for opportunistic behavior in the future should be created. To do this, the implemented bad bank model should limit the potential for “hold-up” problems while emphasizing to shareholders and executives that entrepreneurial failure is a real possibility.

The toxic assets currently plaguing the German banking system are for the most part complex mortgage-backed securities originating in the US housing market. The anonymity of the US-based original borrowers and the large number of intermediate institutions involved in the packaging and onward sale of these securities represent serious impediments to the identification of the relevant counterparties for debt restructuring. Hence, there are fewer instruments available for restricting the bad bank’s losses than in the past. Basically, the tools are limited to the purchase price, the securing of additional time to sell assets at an opportune moment and the governance structure.

Key Elements of a Bad Bank Plan

The selected bad bank plan should consist of the following key elements in order to address the challenges:

- Troubled assets should be valued based on current market prices prior to their takeover by the bad bank. Troubled assets for which there is no market should be transferred to the bad bank at a zero price and therefore at zero cost for the government as the bad bank’s sponsor.
- The government should recapitalize the rescued bank (the remaining good bank) through the acquisition of a shareholder stake; in extreme cases, the remaining good bank should be taken over by the government.
- The bad bank should be funded by the government. External experts should be entrusted with the management and future sale of the troubled assets at the government’s expense. If a profit remains after the proceeds from holding the troubled assets until expiration date and/or selling them to the market have materialized and operating costs have been deducted, these profits should be distributed to the former shareholders.
- The government should announce its commitment to the future re-privatization of its stake in the rescued bank. When establishing a bad bank, the government should make a binding commitment to how long it has to sell its shares in the good bank following the closure of the bad bank.
- All “systemically relevant” banks should be identified and required to participate in the plan.

The takeover of toxic assets by the government at zero cost and the corresponding write-down of assets will create transparency, avoid the high expense of pricing distressed assets, and will insure that shareholders are the first ones to bear the cost of failure.²⁵ The risk of moral hazard will also be effectively limited. A zero-cost acquisition is also justified based on the fact that the active management of the troubled assets is impaired by their complex structure. This approach will also keep the bad bank’s initial capital requirements at a minimum.

With the value of their toxic assets written down to zero, a number of banks will no longer meet the legislated core capital requirement. The government should take a stake in these banks in order to recapitalize them. The prior removal of troubled assets will limit the risk taken on by the government and provide good prospects for the appreciation of its investment. The government’s risk of loss (through the bad bank) and opportunity for success (through

²⁴ Bebchuk, L. 2009: Jump-Starting the Market for Troubled Assets, www.forbes.com/2009/03/03/troubled-assets-relief-opinions-contributors_bad_bank.html.

²⁵ The European Commission has proposed valuing the troubled assets prior to their transfer on the basis of their inherent value. This would be a very difficult task, however, due to the complexity of the assets. Communication from the Commission, I.C.

the rescued good bank) would thus be clearly separated from one another. This would also contribute to transparency.

The government should bear the costs of running the bad bank and ensure that sufficient capital is available so that assets can be held until their date of maturity or an opportune moment for their sale. The risk of exploitation for the party providing the initial capital would be limited by the acquisition of the assets at zero cost. The rule that profits of the bad bank should be returned would ensure that the former shareholders are not forced to suffer any unfair losses from the transfer of the troubled assets to the bad bank.²⁶ In addition, proceeds from the resale of the government's stake in the rescued bank would be used to cover the taxpayer's initial investment for recapitalizing the good banks and for possible losses incurred by the bad bank. In this case, the government would have no incentive to delay the resale of the stake it had taken in the rescued bank.

At the very most, the amount of funding that the government will need to provide to recapitalize the banking sector will equal the losses that accrue from the write-down of troubled assets—i.e. somewhere between 200 and 300 billion euros for Germany. The one-off set-up costs and annual operating costs for the bad bank have to be added to this.

Conclusion

Under the terms of the plan, a bad bank and nationalization are not mutually exclusive alternatives but rather two separate policy options that complement one another. The plan avoids mixed proposals with unclear governance structures and uncertainties about the banks' capacity of raising a sufficient volume of capital. The question as to whether a single bank or multiple bad banks should be established is of secondary importance provided the basic plan selected ensures that: (1) distressed banks are freed of troubled assets and are given a fresh start; (2) the taxpayer is not unnecessarily burdened; and (3) moral hazard and other negative incentives are avoided. Furthermore, in order to provide a foundation for the rescued banks to pursue a sustainable business model, a new regulatory framework for capital markets must be enacted.

Historically, most bank plans have followed a decentralized model (i.e. multiple bad banks). The total assets of the systemically relevant banks currently impacted by the crisis and the oft-cited heterogeneity of the toxic assets plaguing the system also lead to the belief that no benefits of scale would be gained by a centralized bad bank solution. To implement the plan and bailout the banking system, the government will need a considerable volume of capital immediately, which is the primary drawback of the plan.

²⁶ This idea also forms the basis of the debtor warrant in the Bundesbank's proposed model. If the shareholders have in fact surrendered the assets at a price lower than their market value, they can recover the difference through a debtor warrant.