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Deposit Insurance as Private Club

Is Germany a Model?

Thorsten Beck

Germany's private deposit insurance scheme with its "clublike" nature, cannot easily be transplanted to countries with weaker institutions. But it offers useful lessons for countries that want to set up a new scheme or reform an existing one.



Summary findings

Beck describes and evaluates the deposit insurance scheme set up by private commercial banks in Germany in 1975. The scheme's funding and management are completely private, with no public supervision. Where other schemes rely on monitoring by depositors to decrease moral hazard problems, the German scheme relies on peer monitoring by its member banks. The system has weathered several small bank crises but has not yet been exposed to a major bank failure or a systemic crisis.

To what extent can it serve as a model for other countries?

The success of the German scheme has to be judged against an institutional environment that fosters contract enforcement and the rule of law and discourages corruption. In a country with weaker institutions, the voluntary membership might quickly lead to adverse selection, with strong banks leaving the scheme. The high coverage limit might induce bank managers and owners to abuse the scheme. Banks might intentionally underfund the scheme, counting on additional government resources in times of crisis. And the secrecy of funds might decrease fund managers' accountability in societies with little transparency and much corruption.

In Germany's highly concentrated commercial banking sector, the small number of banks facilitates a club atmosphere and quick resolution of banking crises. But it could also prevent the entry of new, innovative market participants, so that the club becomes a cartel. Germany's anti-bankruptcy bias might help prevent moral hazard but can also stifle entrepreneurship. There is a tradeoff between the efficiency gain of a privately run deposit insurance scheme and its potentially negative impact on competition and entrepreneurship.

Although the scheme cannot easily be transplanted to developing countries, it offers lessons for other economies. Schemes with a clublike character reinforce peer monitoring and minimize the risk of free riding. Risk-based premiums based on auditing by the deposit insurance scheme create a healthy link between the protection an insurance offers and the moral hazard it aims to prevent. One compromise might be a combination of ex ante funding that guarantees credibility with depositors and ex post bank funding that gives banks an incentive to monitor one another to minimize costs.

This paper—a product of the Financial Sector Strategy and Development Department—is part of a larger effort in the department to understand the link between financial development and economic growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at tbeck@worldbank.org. February 2001. (28 pages)

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Deposit Insurance as Private Club: Is Germany a Model?

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Comments welcome!

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1. Introduction

The last two decades have seen a rise in explicit deposit insurance schemes around the world. While in 1980 only 16 countries had explicit deposit insurance schemes, by 1999 68 countries had established one (Garcia, 1999; Demirgüç-Kunt and Sobaci, 2000). While the Bretton Woods institutions have in most cases supported the establishment of explicit insurance schemes, the wisdom of this policy has recently been questioned. Demirgüç-Kunt and Detragiache (2000) show that countries with an explicit deposit insurance scheme are more likely to have a systemic banking crisis and are more vulnerable to systemic risk factors than countries without such a scheme. Demirgüç-Kunt and Huizinga (1999) find that the adoption of an explicit deposit insurance scheme undermines market discipline exercised by creditors and depositors on banks. Recently, the attention has shifted from the establishment of an explicit deposit insurance scheme to institutional details, such as coverage, membership, funding and management. Demirgüç-Kunt and Detragiache (2000) show that the coverage and funding of deposit insurance schemes have a significant impact on the probability with which a country suffers a banking crisis. Demirgüç-Kunt and Huizinga (1999) show that the coverage and funding are important determinants of the degree of market discipline exercised by depositors vis-à-vis banks. The importance of the design of the deposit insurance schemes thus increases the need to study institutional details of individual schemes.

This paper describes and analyzes the deposit insurance scheme established by the German Bank Association in 1975. While cross-country comparisons of deposit insurance schemes provide valuable insights into the effects of an explicit insurance scheme and its institutional features on market discipline and moral hazard, they necessarily have to abstract from the richness of institutional details that the study of individual schemes can offer. By focusing on the institutional details of the German deposit insurance scheme, this paper is therefore complementary to cross-country work.

The German deposit insurance scheme for private banks stands out among other explicit insurance schemes. Being a voluntary scheme, it is privately managed and funded and is outside any governmental supervision. It does, however, cooperate with public authorities in the auditing and licensing of banks and in crisis resolution. Although it offers almost unlimited coverage, depositors do not have a statutory right of

reimbursement. While depositors do not have any incentives to exercise market discipline, the private nature of the scheme and the almost unlimited coverage seem to promote peer monitoring and thus market discipline exercised by the member banks. Over the 25 years of its existence it has weathered several smaller bank crises, but has not been exposed to a major bank failure or systemic crisis yet.

The German deposit insurance scheme is an example of a private-public partnership, with the private component taking the first losses, up to an unspecified level. Only in the case of a systemic crisis and if losses are beyond the private insurer's capacity the government is assumed to interfere, a case that has not happened yet in Germany.

We will assess the German deposit insurance scheme on the background of its unique characteristics, the structure of the German banking sector, other components of the financial safety net and the institutional environment in Germany. As shown by Demirgüç-Kunt and Detragiache (2000), the effectiveness of a deposit insurance scheme in reducing moral hazard increases in the quality of the institutional environment of a country. The other elements of the financial safety net also have an important impact on the efficiency of the deposit insurance scheme. Finally, we will evaluate to which extent this scheme can serve as an example for other countries that either want to set up a new scheme or want to reform an existing one.

The remainder of this paper is organized as follows. Section 2 discusses some theoretical and empirical findings on the optimal structure of a deposit insurance scheme. Section 3 describes the main features of the German banking system to the extent that they are relevant for our discussion. Section 4 describes the deposit insurance scheme for private banks and other elements of the German financial safety net. Section 5 evaluates this scheme on the background of the principles laid out in section 2 and other Germany-specific factors. Section 6 briefly describes the changes introduced by the European Union and section 7 concludes.

2. Principles of Deposit Insurance¹

Deposit insurance schemes as part of the financial safety net have two conflicting objectives: on the one hand, they want to protect small depositors and ensure financial stability, on the other hand, they want to minimize banks' incentives to take aggressive risks. While establishing a deposit insurance scheme can be an optimal policy to promote bank stability by preventing bank runs, it can also be a source of moral hazard if banks can transfer the down-side risk of their business to the owners of the deposit insurance scheme, often the tax-payer. Rather than promoting bank stability, this actually increases bank fragility.

The trade-off between the objectives of stability and minimizing moral hazard can also be understood by analyzing the interests of the four different groups of agents involved in deposit insurance schemes: depositors, banks, scheme managers and scheme owners. While depositors value the supposedly higher safety of their deposits and might therefore reduce their effort of monitoring banks, for banks' owners and managers the existence and features of a deposit insurance scheme change their incentive structure by minimizing the down-side risk of the bank business. But there might also be conflicts between strong and weak banks. If strong banks have to subsidize weak banks via flat premium rates, they will leave a voluntary deposit insurance scheme. The resulting adverse selection increases the problems of moral hazard even further. Scheme owners want to minimize the costs of the scheme, while the scheme managers might have personal interests, such as their professional career, or might represent the interests of other groups, such as politicians or the banks.² These agency problems might result in an inefficient safety net.

There are several features to make an explicit deposit insurance incentive compatible and thus decrease moral hazard, adverse selection and agency problems. On the one side, one can assign a margin of loss to private parties to force them to monitor banks and, so increase market discipline. The objective is to identify a group that is best able and most likely to exert market discipline when forced to do so. A limit to the coverage makes the insurance incomplete, and forces especially large depositors to

¹ This section draws heavily on Kane (2000) and Calomiris (1997).

² This is also referred to as regulatory or political capture.

monitor banks. Coinsurance forces all depositors to bear a certain share of losses, since they are reimbursed for less than 100% of their deposits. Excluding interbank deposits from the insurance forces banks to monitor each other and exert market discipline. Excluding foreign currency deposits also makes the coverage less complete, thus increasing depositors' margin of loss. Excluding insider accounts, i.e. the deposits of management and influential owners, reduces moral hazard by making owners and managers participate personally in the down-side risk of the bank business. One can also make shareholders more accountable by making them liable for losses beyond the level of the paid-in capital. This would make stock prices more sensitive to changes in underlying bank fundamentals and have shareholders participate more fully in the down-side risk. Finally, through subordinated debt a class of debt holders can be created that would take the first hit. The holders of subordinated debt would therefore have a strong incentive to monitor banks and exercise market discipline.

On the other side, one can design the management and funding of the scheme in a incentive compatible way. Adverse selection can be decreased by making the scheme compulsory and by introducing risk-adjusted premiums. To decrease the agency problems between owners and managers of the deposit insurance scheme, private funding and management have been proposed. However, a complete privatization might not be possible, since the government and thus the tax payer is always expected to step in, especially in a catastrophic case.

Recent empirical research has shown that the coverage and the funding of a deposit insurance scheme are important features that determine its success in terms of preventing bank runs and providing small depositor protection, while maintaining market discipline and avoiding aggressive risk taking by banks that would result in banking crises. Demirgüç-Kunt and Huizinga (1999) find that higher explicit coverage and having a funded scheme reduce market discipline, i.e. the sensitivity of the deposit interest rate the bank has to pay to changes in profits and liquidity ratios. Demirgüç-Kunt and Detragiache (2000) likewise find that the probability of having a banking crisis increases in the coverage limit and in having a funded scheme.

Empirical research by Demirgüç-Kunt and Detragiache (2000) has also shown the importance of the institutional environment for the success of a deposit insurance

scheme. Using indicators of the institutional quality of a country, such as the rule of law or a corruption index, as proxies for the quality of prudential regulation and supervision, the authors find that in countries with more efficient institutions the moral hazard problems stemming from explicit deposit insurance and some of its characteristics are lower or non-existent. This raises the importance of country-specific approaches to deposit insurance schemes, taking into account other elements of the safety net and the institutional environment.

A deposit insurance scheme has to be assessed in the context of the complete financial safety net, with prudential regulation and supervision, lender-of-last-resort facilities and bank insolvency resolution procedures being the other main elements of the safety net. An insurance scheme without the appropriate instruments to monitor and police banks through prudential regulation and supervision to thus replace the missing market discipline can result in banks taking excessive risks, thus abusing the safety net. The absence of an effective lender-of-last-resort that can provide immediate liquidity to sound banks, undermines the safety net's function of preventing bank runs. The lack of prompt action in the case of failing institutions, a quick exit-strategy and clear and transparent resolution procedures encourages owners and managers of insolvent banks to take additional risks of which they only bear the up-side risk, thus increasing the risk of bank fragility and therefore the strains that are put on the deposit insurance scheme. But it is not only the effectiveness of each component of the financial safety net that is important, but also the cooperation between the different actors. While concentrating all four elements in one agency might lead to conflicts of interest, a close cooperation and information sharing is important.

3. The German Banking System

The German banking system is characterized by a large share of public and cooperative banks.³ As can be seen from Table 1, commercial banks make up only around 25% of total banking assets and deposits. Public banks, owned either by the counties and cities or by the states (*Länder*) make up the relative largest part of the

³ See Baums (1994) for an overview of the German banking system.

banking sector, both in terms of assets and in terms of deposits. Cooperative banks, finally, are the third largest group of the German banking system. Table 2 shows that relative to other countries in both the European Union and the whole OECD, Germany has a relatively large share of public banks.

Table 1: Deposit and asset shares of different bank groups in Germany, 1999

	Total assets	Total nonbank deposits
Commercial banks	25.2%	24.6%
Of which: largest four banks	14.4%	12.8%
Savings banks	36.1%	39.4%
Cooperative banks	13%	18.7%
Other banks	25.7%	17.2%

Source: Bundesbank Monthly Report February 2000. Other banks include mortgage banks, building and loan associations and banks with special functions

Table 2: Share of public banks: Germany and other countries

	Share of public bank assets
Germany	36.4%
European Union	25%
OECD	28.1%

Source: La Porta, Lopez-de-Silanes and Shleifer (2000). The share of public banks is defined as the percentage of assets of the 10 largest banks in each country owned by the government divided by the total assets of these banks in 1995.

The commercial bank sector is heavily concentrated, with the four largest banks representing more than half of total assets and deposits of all commercial banks.⁴ While these four and other commercial banks are active in all German states, there are a large number of regionally concentrated commercial banks. Finally, there are still a small number of private bankers who are liable for the banks' losses not only with their paid-in capital, but also with their personal assets.⁵ The commercial banking sector thus shows a relatively inhomogeneous structure.

⁴ These are Deutsche Bank, Dresdner Bank, Commerzbank, and Bayerische Hypo- und Vereinsbank.

⁵ Many of these "private bankers", however, have been taken over by one of the large four and, although operating under their original name, are not private banks anymore.

The savings and cooperative bank sector, on the other hand, is highly fractionalized, mostly along geographic lines.⁶ Savings banks are restricted to the area of the city or county that owns it. Most of these banks were founded in the 18th and 19th century to provide a safe outlet for the savings of the lower and middle classes. While originally following very conservative asset policies, they now resemble commercial banks. While geographically restricted, they are linked to regional banks that provide banking services that the local banks are not able to provide, such as international banking and securities business. Similarly, cooperative banks operate in geographically restricted areas. These cooperatives were founded in the 19th century to serve rural areas, but also small and medium entrepreneurs in urban areas.⁷ Originally restricted to serving only their members, they have opened up in recent decades. While members had initially mutual and indefinite liability for their cooperative, this has since then be restricted and in most cases liability is now reduced to the paid-in capital. As the savings banks, the cooperative banks have access to the services provided by regional and national apex banks.

Due to the geographic concentration of savings and cooperative banks, competition between the different groups of banks is much greater than between members of each group. While each group initially concentrated on different lines of business, commercial, savings and cooperative banks have become more alike in recent years. While savings and cooperative banks are not necessarily profit maximizing institutions, due to their ownership structure, the commercial banks cannot be assumed to be shareholder-value maximizing either. The large commercial banks vote a large part of the votes at their respective shareholder meetings themselves (Gottschalk 1988).⁸ Furthermore, there is cross-ownership of commercial banks.⁹

⁶ The average size of a commercial bank balance sheet was 4 990 million Euro, as of December 1999, whereas it was 1 601 million Euro for saving banks (excluding the large regional Land banks) and only 263 million Euro for cooperative banks. Source: Deutsche Bundesbank (2000a).

⁷ See Bonus and Schmidt (1990) for an excellent description of the cooperative banking group in Germany.

⁸ According to Gottschalk (1988), Deutsche Bank voted 47%, Dresdner Bank 47% and Commerzbank 35% of the votes at the respective Shareholder meetings.

⁹ According to Gottschalk (1988), Deutsche and Dresdner Bank voted 25% of all votes at the Commercial Bank shareholder meeting, Deutsche and Commerzbank voted 17% of all votes at the Dresdner Bank Shareholder meeting and Dresdner and Commerzbank voted 13% of all votes at the Deutsche Bank shareholder meeting.

German banks have traditionally been universal banks, engaging in both commercial and investment banking and serving both households and firms. Furthermore, German banks, especially commercial banks, have relatively close links with the corporate sector; German banks control large parts of shares in major industrial companies and have representatives on most supervisory boards.¹⁰

4. The German Deposit Insurance System

4.1. General characteristics of the German deposit insurance schemes

While some regional deposit insurance schemes had existed since the 1950s, it was not until the Herstatt crisis of 1974 that the three major deposit insurance schemes in Germany were set up.¹¹ Since the early 1960s political pressure to introduce a deposit insurance scheme for all financial institutions increased. After the Herstatt crisis, finally, the three banking groups introduced their respective schemes to avoid government intervention that might have gone beyond the introduction of a general deposit insurance scheme. At the same time the Liquidity Consortium Bank was founded to provide liquidity support to solvent but temporarily illiquid banks. The introduction of private and voluntary deposit insurance schemes by the different banking groups can thus be explained as the result of political pressure and the attempt to avoid further government involvement in the financial sector.

Each of the three main German bank groups has its own deposit insurance scheme. The insurance scheme for the private banks – which is the focus of this paper – was established by the German Bank Association to offset the competitive advantage that the savings banks had due to their public ownership. The savings bank group has several

¹⁰ According to different studies, quoted by Kester (1994), German banks own 9% of listed German companies, but more than 25% of the 33 major industrial corporations. Furthermore, banks also act as depositories for stock owned by individual stockholders. In 1988, banks represented 40% of the total market value of outstanding shares, so that they effectively controlled nearly 50% of all shares. While Gordon and Schmid (2000) report somewhat lower numbers, they note that corporate equity ownership is concentrated in the big banks and that for most corporations it is concentrated in one bank. They also quote a study that German banks were represented on two thirds of the supervisory boards in 1979, accounting for 10% of all members.. See also Allen and Gale (1994).

¹¹ For a historical overview see Zimmer (1992). For a general overview of the different deposit insurance schemes in Germany, see Bundesbank (1992).

regional deposit insurance schemes and a national compensation scheme. Although the depositors of savings banks are protected by an explicit institutional guarantee of the public owners, the savings banks were pressured into establishing insurance schemes to offset the competitive disadvantage of private banks. As the savings banks, the cooperative bank group has both regional and national insurance schemes. The schemes of both savings and cooperative banks do not directly guarantee deposits, but rather the institutions themselves.

All three bank groups have their own auditing entities and work closely with the Federal Banking Supervisory Office and the Bundesbank. The Bundesbank is prohibited by law to act as a lender of last resort for the deposit insurance schemes. It is rather expected that in the case of a systemic crisis, a political solution will be found, without this case being predictable (Bundesbank, 1992). All three schemes are voluntary and are financed by premium rates levied on member banks.

4.2. The Deposit Insurance Scheme of the Private German Banks

In the following we will describe briefly the most important characteristics of the scheme. Table 3 compares these characteristics with other deposit insurance schemes around the world.

Membership: The membership in the deposit insurance scheme is voluntary, but compulsory for all members of the German Bank Association, unless they belong to another deposit insurance scheme. Although membership is voluntary, non-participating banks face high barriers.¹² The Federal Banking Supervisory Office is required, under section 32(3) of the Banking Act, to consult the appropriate banking association before granting a license. The bank association therefore has a consultative role in the licensing process and is able to point out facts about the applicant bank that might prevent it from participating in the deposit insurance scheme. Both members and non-members of the

¹² There are different reports about the numbers of banks that do not belong to the scheme. Dreher (1998) reports 5, while Steuer (1998) reports 36 out of 300 banks.

deposit insurance scheme have to inform their depositors about the extent to which deposits are covered.¹³

Comparing the German deposit insurance scheme to other countries, we note that it is one of few that are not compulsory. Demirgüç -Kunt and Sobaci (2000) report 13 countries with voluntary schemes, as opposed to 55 with compulsory schemes. In Europe, only Macedonia and Switzerland have voluntary schemes.

Coverage: All nonbank deposits are covered up to a limit of 30% of the liable capital of the troubled institution. Given that the minimum capital for a bank according to the Banking Act is 5 million Euro, the minimum limit is 1.5 million Euro, or around 50 times per capita income of Germany. Given that the average equity size of a commercial bank is 295.5 million Euro, the average limit is around 90 million Euro.¹⁴ These very high limits make the coverage almost complete. The protection is granted to both domestic and foreign depositors and irrespective of the currency in which the deposits are denominated. The scheme covers both domestic and foreign branches of its member banks. There is no co-insurance. Not protected are interbank accounts, bonds payable to bearer and insider accounts. But although there is nearly complete coverage, there is no statutory right, neither for depositors to be reimbursed, nor for the banks to be helped in the case of a crisis. While no bank has been refused help and no depositor has been refused reimbursement¹⁵, this seems to leave a degree of uncertainty in the system.

The coverage in the German scheme is the highest world-wide, both in absolute terms and compared on a deposit per capita basis. (Demirgüç-Kunt and Sobaci, 2000) The average coverage limit is three times per capita GDP across explicit schemes.

Financing: Like the deposit insurance schemes for savings and cooperative banks, the scheme for the private banks is financed exclusively by the member banks and on a mixed ex-ante and ex-post basis. Member banks have to pay a premium of 0.03% of “liabilities to other creditors arising from banking business” every year. This premium can be doubled or set at zero if there are esteemed to be sufficient funds. There can also be an extraordinary premium of up to 100% of a regular premium in case the funds are

¹³ See Banking Act, Section 23a. In the case of non-member banks this coverage extends only to deposits up to 20,000 Euros, with a co-insurance of 10%. See section 6 for details.

¹⁴ Source for these data is Deutsche Bundesbank Monthly Report February 2000.

¹⁵ See Zimmer (1992).

not sufficient. There is a one time additional payment of 0.09% for new members. Banks that have paid for more than 20 years and are classified in the lowest risk category (A), can be exempted from premium payment. Banks that are classified as higher risks (B or C), are required to pay an additional premium of up to 250% of the regular premium.¹⁶ The insurance scheme does not publish financial statements so that the available funds are not publicly known.

There is no public funding. The Bundesbank is prevented by the Bundesbank Act to function as lender of last resort for the deposit insurance schemes. However, it is conjectured, that the private banks' deposit insurance scheme might not have sufficient funds to reimburse depositors in the case of a systemic banking crisis or a major bank failure. In this case, and only in this case, it is expected that the government will step in, without this case being predictable (Bundesbank, 1992).

Worldwide only 10 countries have unfunded deposit insurance schemes, most of them European. Most countries are at least partially funded by premiums levied on member banks, but most receive additional government resources or can expect to receive them in the case of a major crisis. 21 countries have risk-adjusted premiums (Demirgüç-Kunt and Sobaci, 2000).

Management: The deposit insurance scheme is organized within the German Bank Association and is thus under the management and by-laws of this private association. There is no public supervision.¹⁷ The scheme is managed by a commission of 10 bank representatives that are accountable to the general assembly of the Association. All groups of commercial banks are represented in the commission.¹⁸ The scheme is flexible in terms of how it assists a troubled bank. It can reimburse depositors directly or it can pay to the bank itself. It can issue guarantees or assume liabilities of the bank in trouble.

Only 11 countries have deposit insurance schemes that are completely managed privately. Apart from Tanzania, Argentina and Brazil, all countries are in Europe. Most deposit insurance schemes are administered either jointly or publicly.

¹⁶ The risk classification and the differentiation of risk premium was introduced in 1997.

¹⁷ Since the scheme does not offer a statutory right to depositors, it does not fall under public regulation (Steuer, 1998).

¹⁸ According to the statutes, there are four representatives of the large banks, three representatives of private bankers and three representatives of regional, foreign and other banks.

Auditing: All member banks have to be member of the Auditing Association of German Banks, that audits all member banks on a regular basis, both off- and on-site.¹⁹ The Auditing Association is closely linked with the deposit insurance scheme; its advisory board and the deposit insurance committee have identical membership. The Auditing Association of German Banks can impose corrective actions on member banks if there are circumstances that increase the riskiness of the bank's business or other circumstances that violate the Banking Act or other laws referring to bank business. These actions can include restrictions on the volume of deposit business or certain types of lending. Since 1997 the Auditing Association also classifies banks on a yearly basis. The possible grades (A, B, C1, C2 and C3) are confidential and cannot be used by banks in advertising. As mentioned above, banks classified as B or C are assessed additional premiums of up to 250% of the original premium. Classification criteria are the financial situation and the quality of the management information and controlling systems of the bank.

Members can be expelled from the scheme, especially in cases of missing or wrong information, and in case that the bank is classified as C3 for more than two years in a row.²⁰ Member banks can be expelled by a vote of the commission of the scheme, a decision that can be overturned only by a two third majority of the general assembly of the association. If a dominating share of a bank's capital is purchased by someone who does not fulfill the requirements of the statutes concerning trustfulness, the exclusion is automatic.

¹⁹ See Auditing Association of German Banks (1999).

²⁰ No bank, however, has been expelled so far.

Table 3: Characteristics of the private German deposit insurance, compared to other countries

	Germany	EU ²¹	US	World average
Explicit	Yes	Yes	Yes	68 countries
Coverage limit	30% of equity	20 000 ECU	100 000 USD	On average three times per capita GDP
Coinsurance	No	10%	No	17 out of 68 countries have co-insurance
Foreign Currency Deposits Covered?	Yes	Can be excluded	Yes	Covered in 48 out of 68 countries
Interbank Deposits Covered?	No	No	Yes	Covered in 18 out of 68 countries
Funding	Funded, but additional funds callable	Not regulated	Funded	58 out of 68 countries have funded schemes
Source of Funding	Banks only	Not regulated	Joint	Private: 15 Joint: 51 Public: 1
Management	Private	Not regulated	Public	Private: 11 Joint: 24 Public: 33
Membership	Voluntary	Compulsory	Compulsory	Compulsory in 55 out of 68 countries
Risk Adjusted Premiums	Yes	Not regulated	Yes	21 out of 68 countries have risk-adjusted premiums

Sources: Demirgüç-Kunt and Sobaci (2000), Bundesverband deutscher Banken (1999).

²¹ Minimum requirements according to EU directive 94/19

4.3. Other Elements of the German Financial Safety Net

As mentioned in section 2, the functioning of a deposit insurance scheme has to be evaluated in the context of the complete financial safety net. Compared to other countries, the German financial safety net relies heavily on personal coordination and cooperation between the banking sector and public authorities. This becomes especially apparent in the case of crises, as described below. The German financial safety net also relies on market discipline, as illustrated by the Herstatt Bank crisis in 1974, when creditors were not compensated by the authorities.

The Federal Banking Supervisory Office (FBSO) is responsible for licensing, regulating and supervising banks. It closely cooperates with the Bundesbank.²² There is also a fairly close cooperation between the FBSO and the deposit insurance schemes. As mentioned above, the FBSO has to consult the Bank Association before granting a bank license. The Bank Association and the Auditing Association have to submit all auditing reports to the FBSO and the Bundesbank (Banking Act, Section 26).

The FBSO has wide ranging powers. It can demand the dismissal of any bank manager that “has intentionally or recklessly contravened the provisions of the (Banking) Act ...” (Section 36). The FBSO can impose corrective actions on a bank if it is found in violation of any regulatory norm, such as inadequate capital or liquidity (Sections 11 and 45). It can temporarily close a bank or revoke the bank’s license if regulations of the Banking Act have been violated or in the case of large or continuous losses (Sections 35 and 46). If the FBSO revokes a license, the bank is liquidated by a liquidator appointed by the court of registration. The revoke of a license is immediate; any appeal against the revoking of the license does not have postponing effect.

Unlike in other countries, the Bundesbank (or now the European Central Bank) does not fulfill the function of a lender of last resort for banks. This function is rather assumed by a private liquidity supplier, the Liquidity Consortium Bank (LCB), set up in 1974 on initiative by the Bundesbank. Its objective is to ensure the due settlement of domestic and external payments through banks by granting short-term liquidity to sound

²² Among the areas of cooperation listed in the Banking Act are the exchange of information and the participation of the president of the FBSO in meetings of the Bundesbank Council on issues relevant to bank supervision. Furthermore, the Bundesbank participates actively in the drafting and issuance of bank regulations and bank inspections. See Deutsche Bundesbank (2000c) for more details.

banks that are facing temporary liquidity problems.²³ Shareholders are the Bundesbank with 30% and major banks with 70%.²⁴ Its paid-in capital is DM 372 million, with callable capital of DM 1,860 million. The LCB has also access to a re-discount line at the Bundesbank of DM 1,100 million. Loans are approved by a loan committee, consisting of bank representatives and are granted at market rates and against collateral.

4.4. Past Experience of the Private Deposit Insurance Scheme

The deposit insurance scheme has had to reimburse in 26 cases so far (Steuer, 1998). In most cases, the deposit insurance scheme steps in after a bank has been temporarily closed and is in process of being liquidated, and the accounts are transferred to another financial institution. The decision to which bank to transfer or whether to pay out depositors directly is made by the deposit insurance scheme on a cost basis. The largest cases so far have been Schröder, Münchmeyer, Hengst and Co. (SMH) in 1983 and Fischerbank in 1995.²⁵ In the first case, it had to pay out 345 million DM to reimburse depositors and creditors and in the latter case it had to pay for 80 000 accounts and 1.6 billion DM deposits.²⁶ All bank crises have been solved and paid for exclusively by the private deposit insurance scheme without any public money.

The failure of SMH is a case that shows how the “club” of private German banks works in corporation with public officials in the case of an individual bank failure, in order to minimize the impact on the banking system quickly.²⁷ In November 1983, SMH, a small private bank, faced DM 900 million, a third of its assets, and eight times its equity, in losses from non-performing loans to a holding of construction firms. Under pressure from the Bundesbank and the Federal Banking Supervisory Office, banks with outstanding claims on SMH agreed on converting their claims into subordinated debt, in exchange for managerial control. The deposit insurance scheme put up DM 345 million to pay out depositors and foreign creditors.²⁸ The new owners then appointed a new supervisory board. A month later, the bank was split into a good and a bad bank, with the

²³ This resembles the role of clearing houses in the U.S. in the 19th and early 20th century.

²⁴ Commercial, savings and cooperative banks participate in the LCB.

²⁵ While SMH was a private partnership, Fischerbank was a regional bank.

²⁶ See Steuer (1998).

²⁷ See Grant (1984), Shireff (1985) and Federal Reserve Bank of New York (1990).

²⁸ The deposit insurance scheme raised the premiums for 1983 and 84 to 0.06% to cover the SMH losses. See Delamaide (1984).

good bank being sold to Lloyds Bank and the bad bank taken over by the German Bank Association and subsequently being liquidated. Interestingly enough, the problems at SMH were discovered by the Bank Association, not by the Supervisory Office. Although government representatives were present and exercised some pressure at the first meetings, the crisis resolution was purely private. The German Bank Association was at the center of the rescue. The decisions on how to resolve the crisis were taken within hours at the Bundesbank in Frankfurt with the creditors taking over SMH within days.

5. The German Deposit Insurance Scheme – A Model?

Although the deposit insurance scheme for private bank does not seem to fit perfectly the best-practice scheme, as laid out in section 2, it seems to have worked very well over the last 25 years. While the scheme does not provide any incentives for depositors to monitor banks and thus exercise market discipline, the completely private nature of the scheme seems to provide sufficient incentives for banks to monitor each other. Monitoring by depositors and creditors is thus replaced by peer monitoring. Cooperation between public authorities and the private scheme, the institutional framework and an anti-bankruptcy bias are additional determinants of the “success” of the German deposit insurance scheme. In the following we discuss each of these determinants in turn.

5.1. Peer Monitoring Instead of Depositor Monitoring

German banks take very low risks, compared to other countries, and do not seem to take advantage of an implicit subsidy extended to them by the financial safety net, as shown in a recent paper by Laeven (2000). He analyzes the risk-taking of banks in 12 countries by calculating the gross subsidy extended to banks by the safety net. This gross subsidy is measured by the fair premium that banks would have to pay for deposit insurance. Measured by this gross subsidy, German banks take by far the lowest risk among the 12 countries.²⁹ By subtracting the premiums banks have to pay from the gross subsidy, one can calculate the net subsidy extended by an explicit deposit insurance

scheme. For most years in the 90s, German banks paid premiums that were higher than the gross subsidy, i.e. there was a negative subsidy or tax imposed by the deposit insurance scheme.

Several features of the German deposit insurance scheme are not incentive compatible and seem to decrease, if not eliminate market discipline exercised by depositors. The nearly unlimited coverage, the lack of coinsurance, the broad coverage of accounts, both in domestic and foreign currency, and both at home and abroad, are all disincentives for depositors to monitor banks carefully. The lack of a statutory right for depositors and the lack of information about accumulated funds of the scheme, on the other hand, might off-set these negative effects, at least partially. But the fact that the scheme has reimbursed all depositors so far, and that depositors seem to perceive an implicit deposit insurance for large banks, whose failure might lie beyond the financial resources of the scheme, renders these characteristics meaningless. Since the design of the deposit insurance does not give any incentives to depositors to exercise market discipline vis-à-vis banks, there must be other elements that explain the lack of moral hazard and aggressive risk-taking by banks.

Monitoring by peer banks replaces monitoring by depositors in the German banking sector. This is accomplished by (i) the completely private nature of funding and management of the scheme, (ii) the exclusion of interbank deposits from the insurance, and (iii) the almost complete coverage of deposits. The scheme is outside any public regulation and supervision, although it fulfills some public functions, as for example in the licensing process. The fact that interbank deposits are excluded increases the incentives for banks to monitor each other. Finally, the almost complete coverage that depositors enjoy and that eliminates market discipline by depositors, might in turn increase market discipline exercised by the banks. Given the complete private nature of the scheme and the lack of public back-up funding, the member banks are not able to externalize any costs stemming from a distressed member bank. The almost complete coverage therefore increases pressure on the member banks to monitor each other.

²⁹ The other countries in the sample are France, Hong Kong, Indonesia, Japan, Korea, Malaysia, Singapore, Taiwan, Thailand, UK and US.

The deposit insurance scheme is completely integrated in the structure of the German Bank Association. It therefore resembles a club that provides a *non-rival*, but excludable good for its members.³⁰ But unlike most clubs that provide *rival* and excludable goods, the deposit insurance scheme is not necessarily subject to problems of congestion. On the contrary, a larger number of banks allows better risk diversification and enables mutual monitoring. There might be a point, though, where adding more banks might decrease the efficiency of mutual monitoring, since with a higher number of banks the intensity of business between two given banks decreases and the risk of free riding increases.³¹ The high concentration in the private German banking sector might therefore result in an optimal size for such as a club, balancing effectively the trade-off between risk diversification and intensity of inter-bank monitoring. Having separate deposit insurance schemes for each group of banks (public, cooperative and private) reinforces the private club nature of the deposit insurance schemes by aligning the interests of individual banks more closely.

The completely private nature of the scheme also avoids agency problems – often found with deposit insurance schemes - between owners of the scheme, its managers and banks, since these three groups coincide in the German case. Unlike in other countries, the tax payer is not the owner of the scheme and thus not directly involved in the scheme. This eliminates potential agency problems between public administrators of the scheme and the tax payers as owners. It also eliminates the risks of regulatory and political capture (Garcia, 1999). Since the deposit insurance scheme is completely embedded in the German Bank Association, no agency problems between scheme managers and banks arise.

The complete integration of the scheme in the bank association also reduces the problem of adverse selection that arises from a voluntary scheme. The dominant position of the German Bank Association prevents the exit of member banks (Zimmer, 1992). Although problems of adverse selection and moral hazard remain within this club, the

³⁰ In the literature a club is defined as “a voluntary group of individuals who derive mutual benefits from sharing one or more of the following: production costs, the members’ characteristics or a good characterized by excludable benefits” (Cornes and Sandler, 1996, p.347). All three characteristics apply to the private German banks: they produce jointly the good “insurance”, they belong to the same group of banks and deposit insurance is an excludable, though non-rival good.

small number of members, the common ownership structure (private), the common goals and professional ethics create a sense of community. Personal contacts facilitate moral suasion and pressure. Furthermore, to minimize problems of adverse selection and moral hazard within this club, the deposit insurance scheme has supervisory and regulatory powers over its members. It has the power to impose corrective actions on member banks that do not comply with regulatory or prudential standards and can even expel members if they do not comply with these. Problems of adverse selection within the scheme are avoided by a rather equal representation of the different groups of banks on the commission. None of the three groups (large banks, private bankers, and regional, foreign and other banks) can impose itself on the other two groups.

Another element of the success of the German deposit insurance scheme seems to be the close cooperation between public authorities responsible for prudential regulation and supervision and the private banks, its association and the deposit insurance scheme. This becomes manifest in the resolution of banking crises, as in the case of the SMH failure described above. However, the prompt coordination of industry support for a failing bank is made possible only by the high degree of market concentration in the German private banking sector, which in turn, can be explained by the absence of any branching restrictions and the universal banking system.³²

Conflicts of interests between the lender of last resort and the deposit insurance scheme are reduced by the existence of a private liquidity supplier, the LCB, owned and managed by the private banks and responsible for liquidity support to healthy banks. The LCB does not have incentives to lend to failing banks, since the costs of this action have to be borne by the deposit insurance scheme, also run and financed by banks. Furthermore, the close link between the deposit insurance scheme and the LCB increases the pressure on banks to belong to this club.

The German deposit insurance scheme resembles in its structure the successful deposit insurance schemes in the U.S. during the 19th and 20th century, notably the National Credit Union Share Insurance Fund (NCUSIF) and a number of schemes in the

³¹ See also Calomiris (1989) for a description of this trade-off in the case of deposit insurance schemes in the U.S.

³² See also Roth (1994).

antebellum period.³³ The successful examples of the past functioned also like clubs, had strong regulatory and supervisory powers over their members and exit from the scheme was hard or even impossible. Furthermore, there were other advantages in belonging to the “club” such as liquidity support in times of crisis. A small number of members and unlimited mutual liability prevented free riding on the collective insurance. Members of the NCUSIF are also liable without limit for any shortage in the fund and have therefore strong incentives to monitor each other.

5.2. Other Institutional, Legal and Economic Determinants of Banking Stability in Germany

The success of the German insurance scheme has to be evaluated on the background of the institutional framework. While Demirgüç-Kunt and Detragiache (2000) show that an explicit deposit insurance and a higher coverage limit increase the probability of a crisis, this effect turns insignificant in countries with very high levels of institutional quality. Since Germany scores very high on all of these indicators, it is not surprising that the existence of an explicit deposit insurance scheme with an extremely high coverage limit does not increase moral hazard in Germany as much as in other countries.

The success of the German deposit insurance scheme can at least partly be explained by a certain anti-bankruptcy bias in Germany. Bankruptcy is viewed as personal rather than as economic failure. Furthermore, bankruptcy can result in criminal persecution, as the case of Graf von Galen in the SMH failure shows. What is considered a white-collar crime in other countries and often either not a criminal act or if it is, not enforced, is taken very seriously in Germany.³⁴ According to the German criminal law bankruptcy can be punished with a prison sentence of up to five years if caused by – among others - accounting fraud, hiding assets or actions that are counter to “orderly

³³ For a description of successful and failed deposit insurance schemes in the U.S. see Calomiris (1989, 1990) and English (1993). For a description of the NCUSIF see Kane and Hendershott (1996).

³⁴ The treatment of Graf von Galen raised eyebrows in other countries. Euromoney described his trial as “witch-hunt”. Graf von Galen was sentenced to three years and nine months in prison, for breach of trust, a criminal offense in Germany, but not in the U.S. or the U.K. See Shireff (1986). Hans Gerling, the main owner of Herstatt bank, agreed to contribute nearly DM 150 million out of his personal assets to reimburse creditors in order to avoid being sued by them over the bankruptcy of Herstatt (Economist, 1974).

business practices”. In aggravated cases bankruptcy can be punished with up to 10 years in prison. A bankruptcy is considered aggravated when the accused has acted criminally out of greed or endangers knowingly by his bankruptcy the wealth of persons who have entrusted him their wealth.³⁵ According to legal scholars, the latter is the case for financial institutions (Liedtke, 1995). Beyond the criminal persecution, the German Banking Act prohibits a manager who has been involved in a fraudulent bankruptcy to ever take a managerial position in the banking sector again.³⁶

While the private nature of the deposit insurance scheme and the anti-bankruptcy bias in laws and economic life prevents bankers from taking excessive risks and might reduce moral hazard, it might also have a negative impact on entrepreneurship and the competitive structure of the banking sector. A strong anti-bankruptcy bias can be detrimental for risk-taking and innovation. Finally, the dominant position of the banking association can transform this club very easily into a cartel that tries to impede entry by new members and therefore stifle competition in the banking sector (Zimmer, 1992). Entry barriers imposed by the Bank Association are higher than the requirements for a banking license as spelled out in the Banking Act, and put a high emphasis on hard to define concepts, such as “trustfulness” and “orderly business practices”.³⁷

Finally, the ownership structure of the German financial sector might be another determinant of the banking stability. As described above, large parts of the banking sector are either in public or cooperative ownership, and are therefore not profit-maximizing entities. Most of the commercial banks seem more under the control of their management than shareholders, as described in section 3. While this lack of shareholder-value maximization might decrease efficiency in the banking sector, it might also help reduce aggressive risk taking and moral hazard. The oligopolistic market structure within the commercial banking sector and the resulting high franchise values of banks might further diminish incentives to “bet the bank.”

³⁵ German Criminal Law Art. 283 and 283a.

³⁶ Banking Act, Sections 32 (1), 33 (1) and 35(2).

³⁷ There have been several cases of banks which have been refused membership in the deposit insurance scheme -, so e.g. the BVH Bank für Vermögensanlagen und Handel. This bank was closed in 1997 after extensive losses. See Seuthe (1999).

6. The New European Directive

The European Union adopted in 1994 – against the vote of Germany – a mandate to establish compulsory deposit insurance schemes in all member countries. The coverage limit of these schemes has to be at least 20 000 Euro, and a coinsurance of up to 10% is allowed. The organizational structure of these schemes is left to the countries.³⁸

Germany complied by this mandate by establishing insurance schemes that offer the minimum protection as demanded by the EU mandate.^{39,40} Apart from a low coverage limit and the 10% coinsurance, accounts of public entities, of insiders and any financial institution –including insurance companies and mutual funds – are excluded. Both schemes – one for private banks and one for public banks that are not part of one of the institutional insurance schemes - are privately managed, but under the regulation and supervision of the Federal Banking Supervisory Office. The scheme for the private banks is managed by the German Bank Association, but separately from the private voluntary deposit insurance scheme. The schemes are to be financed by annual premiums from the member banks, with the premiums being set by the Ministry of Finance. The privately managed deposit insurance scheme continues in its present form, since it does not fall under public regulation and therefore not under EU Law. However, it is now responsible only for deposits over 20,000 Euro and deposits not covered under the basic compulsory insurance. The Auditing Association of German Banks will not only continue auditing members of the voluntary scheme, but also of the new compulsory scheme.

Germany has thus fit the new compulsory scheme into the existing structure. The new compulsory schemes have adopted several of the features of the voluntary scheme – private management and financing, and a close link between insurance and auditing.

³⁸ For an overview over the implementation of the compulsory deposit insurance in Germany see Deutsche Bundesbank (2000b).

³⁹ Since reimbursement of deposits and claims from investments are separate, the coverage limit can be up to 40 000 Euros.

⁴⁰ “Entschädigungseinrichtung deutscher Banken” and “Entschädigungseinrichtung des Bundesverbands Öffentlicher Banken Deutschlands”.

7. The German Private Deposit Insurance Scheme – What Can We Learn?

The German example shows that a deposit insurance scheme that is funded and administered completely by banks is feasible in a specific institutional and competitive environment. The club nature of the scheme, the auditing and supervisory power of the deposit insurance scheme, and the close cooperation between public authorities and the private scheme have contributed heavily to the success of the German scheme and have off-set other incentive-incompatible elements of the scheme, such as the high coverage limit. The lack of incentives for depositors to exercise market discipline has been off-set by monitoring by the banks themselves. The reason that depositors do not have incentives to monitor banks – the almost complete coverage – increases the incentives for banks to exercise market discipline since they – and only they – have to bear the costs of distressed banks. It is thus the interaction of different design elements rather than the simple sum of incentive compatible features that matters for the success of a deposit insurance scheme in increasing market discipline and reducing moral hazard.

The German deposit insurance scheme is a successful, though untested, example of a public-private partnership in the regulation of the financial sector. The private parties involved have to take any losses, which enhances incentives to monitor each other efficiently. Not only have losses to be covered by previously paid premiums, but the banks can be assessed additional premiums. The government is by law prohibited to get financially involved in bank failure resolution. One can only conjecture that when the burden is turning too heavy and when the losses imposed on the member banks become a threat for the health of the whole financial sector, the government comes in, without this case being predictable. One can define this private-public partnership also along the dimension of systemic and non-systemic crises. The private partner has to take all losses incurred due to non-systemic crises, whereas the public might step in in the case of a systemic crisis.

But the success of the German scheme has to be judged on the background of an institutional environment that fosters contract enforcement and the rule of law and that exhibits a minimum level of corruption. In an environment with lower institutional quality, the voluntary membership might very quickly lead to adverse selection, with

strong banks leaving the scheme. A high coverage limit might induce bank managers and owners to abuse the scheme, expecting that they will be able to externalize the costs of failed banks. In a weak institutional environment, an only partially funded scheme might result in banks underfunding the scheme intentionally, counting on additional government resources in times of crises. While the secrecy of available funds might strengthen depositors' confidence in Germany, it might decrease accountability of the fund managers in a society with low degrees of transparency and high levels of corruption.

The success of the German scheme has also to be judged on the background of the market structure of the German banking system. A highly concentrated commercial banking sector with a small number of banks facilitates a club atmosphere and the quick resolution of a banking crisis as in the case of SMH. However, it might also prevent the entry of new and innovative market participants and transform the club into a cartel. The economic and legal anti-bankruptcy bias in Germany might be helpful to avoid moral hazard, but can stifle entrepreneurship. A more general assessment therefore has to consider carefully the trade-off between the efficiency gain of a privately run deposit insurance scheme as in Germany and its potentially negative impact on competition and entrepreneurship.

For many developing countries that are in the process of establishing or redefining their deposit insurance scheme Germany might be a model to be considered. Many emerging economies' financial systems are characterized by concentrated banking sectors with a small number of institutions and a large share of state-owned banks. A deposit insurance scheme limited to the private banks and managed and owned by the banks themselves might increase accountability, reduce moral hazard and foster the development of the private banking sector. While other elements of the German "success" story might be missing – such as the institutional environment and an anti-bankruptcy bias -, a private deposit insurance scheme as in Germany might be an important first step towards more banking sector stability. A privately managed and funded deposit insurance scheme can serve as the first line of defense to ensure financial stability, if equipped with the right incentive structure and a certain degree of supervisory and regulatory power.

But even if the scheme as a whole cannot be easily transplanted to other countries, there are still several lessons to be learned, especially for developing countries. First, creating several schemes for different groups of banks, such as private, cooperative and government owned banks, increases the “club” character, reinforces peer monitoring and minimizes the risk of free riding. Second, risk-based premiums based on auditing by the deposit insurance scheme create a healthy link between the protection an insurance offers and the moral hazard it wants to avoid. Finally, a combination of ex-ante funding that guarantees credibility of the scheme vis-à-vis depositors, and ex-post funding by banks that constitutes an incentive for the latter to monitor each other to thus minimize costs, might be a recommendable compromise.

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