

Bank regulation and supervision in bank-dominated financial systems: a comparison between Japan and Germany

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Abstract This paper compares bank regulation and supervision in Japan and Germany. We consider these countries because they both have bank-dominated financial systems and their banking systems are often lumped together as one model, yet, bank stability differs significantly. We show that Japan and Germany have chosen different approaches to bank regulation and supervision and ask why they made their choices. We argue that bank regulation and supervision were less efficient in Japan than in Germany and that these differences were decisive for bank behavior.

Keywords Japan and Germany · Bank regulation and supervision · Deposit insurance · Lender of last resort · Forbearance · Varieties of capitalism

JEL Classifications G21 · G38 · P52

1 Introduction

The beneficial effects of efficient banking systems for economic growth and development are well-proven, both theoretically and empirically (Pagano 1993;

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Bencivenga and Smith 1991; Beck et al. 2000). But what is an efficient banking system and why do banking systems differ across countries? Recently, the law and finance view on financial development proposed a list of best practice corporate governance rules. According to this view, rules of corporate governance and hence financial systems differ internationally mainly because countries belong to different law traditions (La Porta et al. 1997, 1998; Beck and Levine 2003). Acemoglu et al. (2001, 2002) challenge this view and argue that law traditions are less important than geography and colonization strategies, while Stulz and Williamson (2003) and Guiso et al. (2003) emphasize cultural and religious differences as being crucial for variations in financial systems. Moreover, Rajan and Zingales (2003) and Barth et al. (2004, 2006) regard differences in bank regulation and supervision as being decisive.

Several cross-country studies test for the propositions of the law and finance view and the alternative views (La Porta et al. 1998; Stulz and Williamson 2003; Beck and Levine 2003; Barth et al. 2004, 2006). While these studies present many insights into the determinants of well-functioning banking systems, they suffer from several short-comings. Firstly, they construct indices of bank regulation and supervision around the world which may not be unique; though carefully constructed, different indices could lead to different results. Secondly, by abstracting from the institutional details of a country's bank regulatory and supervisory schemes, cross-country studies cannot cope with the richness of institutional designs that a study of individual schemes can offer. Finally, cross-country studies do not explain why individual countries choose different forms of regulation and supervision. Because banking sector politics often reflect historically fashioned attitudes toward the financial sector and the role of government regulation, political interest groups, colonial heritage, and the influence of international institutions, Barth et al. (2006, 253) demand that "(to) better understand the determinants of bank regulatory and supervisory policies and effective strategies for reforming those policies, future research should use case studies to trace the forces shaping the evolution of bank regulation and supervision."

In this paper, we offer such a case study and compare bank regulation and supervision in Japan and Germany.¹ We have chosen these two countries because they share a lot of similarities, yet, their banking systems performed very differently during recent decades. Both countries belong to the same law tradition (German civil law) which was adopted by Japan at the end of the 19th century.² Japan and Germany have equal institutional environments with respect to rule of law or levels

¹ Case studies involve data collections through personal interviews, verbal or written reports, or observations; they are holistic, allow for contextuality, take a longitudinal approach and are particularly well suited in cross-cultural settings (Ghauri 2004). For overviews over the case study approach and different qualitative research methods see Yin (2003), Gerring (2004) and the contributions in Marschan-Piekkari and Welch (2004).

² During the Meiji era (1868–1912), Japan first tried to adopt French Criminal and Civil Codes because France, at that time, was viewed as having the most sophisticated legal system. With the adoption of a constitution patterned after the Prussian constitution in 1889, however, German influences gained in importance and, in 1899, Japan adopted a German-style civil Code. For details see Luney (1989). On the relevance of the German state as a constitutional model for Meiji Japan see also Lehbruch (1997).

of corruption (Demirgüç-Kunt and Detragiache 2002)³ and belong to the same type of capitalism (“coordinated market economies”, Hall and Soskice 2001). Finally, both countries have bank-dominated (instead of market-based) financial systems and their banking systems share some important features so that they often are lumped together as one model (Aoki et al. 1994). Despite these striking similarities, however, Japanese and German banks performed very differently in the recent past: While Japanese banks suffered considerable losses during the 1990s and were subject to major consolidations, German banks performed relatively well. At first sight, these differences may come as a surprise to everyone who regards institutional frameworks as decisive for economic performances.

In what follows, we argue that—despite all institutional similarities—Japanese and German banks act in different regulatory environments. We give close scrutiny to bank regulation and supervision and assess whether the different performances of Japanese and German banking sectors can be traced back to differences in bank regulation and supervision.⁴ We thus use the “varieties in capitalism” approach to comparative economic studies (Whitley 1999; Hall and Soskice 2001; Morgan 2005) according to which different institutions systematically influence firms’ behavior and strategies. To explain how different regulatory and supervisory frameworks evolved, we take a historical perspective and explore the political backgrounds and their amendments in Japan and Germany during the past decades.⁵ Applying this historical institutional approach, we compare bank regulatory and supervisory frameworks in Japan and Germany and address the following questions: Why have bank regulation and supervision evolved differently in Japan and Germany? Do differences in bank behavior result from differences in bank regulation and supervision? What kind of banking policy reforms will improve the performance of the banking sector and the whole economy in both countries? The general purpose of this paper—as of any comparative case study—is to find out which differences in national economic policies explain differences in economic performance and to find out what each country can learn from the experience of the other.

To answer these questions, we first need to know why banks are regulated and supervised and which interdependencies do exist between single regulatory instruments. Banking theory helps to understand which trade-offs emerge in different regulatory and supervisory regimes. Since these regimes were implemented over longer periods of time, we second need to know the sequence of events that led to the evolution of a prevailing framework; hence, history helps us to understand possible path-dependencies in the evolution of different regulatory regimes. Finally, we have to look on the political background against which

³ In 2006, Germany was ranked 16th, Japan was ranked 17th in the Transparency International Corruption Index. See <http://www.transparency.org>. Of course, there are still cultural and religious differences between both countries.

⁴ Though Germany belongs to the European Monetary Union (EMU), bank regulation and supervision still resides in the individual countries; see Barth et al. (2006).

⁵ The historical institutional approach was pioneered by North (1990); see also the overview in Hori (2005).

decisions are taken and implemented; a look on the political system helps us to understand the functioning of the issue settling system in both countries.

We follow Barth et al. (2006) and refer to bank regulation as the rules that govern the behavior of banks whereas supervision is regarded as the measures taken to insure that banks comply with these rules. Bank regulation encompasses several aspects, i.e., the entry into banking markets, ownership restrictions, minimum capital requirements, restrictions on activities, external auditory requirements, internal management or organizational requirements, liquidity and diversification requirements, deposit insurance schemes, provisioning requirements and exit or foreclosure rules. As for supervision, one can look at the structure, the scope, and the independence of supervision; hence, one can ask whether there is a single authority only capturing all banks, whether there is a single authority for all financial activities, and, finally, how independent the supervisory authority is from pressure and influence by politicians and banks.

Some case studies of bank regulation and supervision for Japan or Germany do exist: Suzuki (1980, 1987) and Ueda (1994) describe post-war bank regulation in Japan, and several studies (Noguchi 1994; Nakaso 2001; Cargill 2001; Ito and Melvin 2001; Hori 2005; Kawai 2005) provide thorough descriptions of the Japanese financial crisis and reforms during the 1990s. Krümmel (1980), Edwards and Fischer (1994) and Baums (1994) describe German banking regulations and derive their consequences for the evolution of universal banking; Beck (2002) analyzes German deposit insurance schemes set up by private commercial banks, but pays little attention to deposit insurance in the public and the cooperative banking sectors as well as to changes in deposit insurance initiated by European directives in 1998. None of this literature, however, compares Japan with Germany and tries to find out how different regulatory frameworks influence bank behavior in bank-dominated financial systems.⁶

The paper is organized as follows: Section 2 provides a survey of the literature why commercial banks are regulated and supervised. Section 3 describes the evolution of the banking systems and the history of bank regulation and supervision in Japan and Germany since the Second World War. Section 4 compares Japan and Germany and discusses the consequences of different regulatory and supervisory environments for financial stability in both countries. Section 5 presents political reasons why different regulatory and supervisory frameworks developed in Japan and Germany. Section 6 concludes and states what lessons are to be learned from the Japanese and the German experiences.

2 The rationale for banking regulation: an overview

Banks are financial intermediaries that simultaneously grant loans and issue deposits. They facilitate financing when informational asymmetries and transaction

⁶ A notable exception is Vitols (2003) who compares financial reforms intending to foster market-based financing in Japan and Germany. A comparative perspective is also taken in Muramatsu and Naschold (1997) without, however, paying attention to financial markets.

costs prevent markets from allocating funds efficiently.⁷ By gathering information about borrowers (Leland and Pyle 1977; Diamond 1984; Allen 1990; Hakenes 2004) and by transforming loans into demandable deposits (Bryant 1980; Diamond and Dybvig 1983), banks create liquidity and offer liquidity insurance on both sides of the balance sheet (Diamond and Rajan 2001).

This kind of liquidity creation inevitably exposes banks to the risk of a bank run, i.e., a situation where all depositors, even without actually facing liquidity needs, wish to withdraw their deposits.⁸ From an *ex ante* point of view, a bank run serves as a commitment device for a bank to behave honestly and not to betray customers (Calomiris and Kahn 1991). However, it may not only be triggered by a looming misbehavior of the bank. A run can also result from a coordination failure among depositors, i.e., when sunspot events make depositors withdraw deposits only because they believe that other depositors will also do so (Diamond and Dybvig 1983). More importantly, a bank run can also be triggered by changing fundamentals such as expectations that a bank's capital cushion will be totally spent when assets devalue (Jacklin and Bhattacharya 1988; Diamond and Rajan 2000). A bank run might even occur when the net present value (NPV) of bank assets does not change. For example, asset returns may simply be delayed or the liquidity needs of depositors may suddenly and unexpectedly increase (Diamond and Rajan 2005).

A bank run can be tremendously costly for the society as it is associated with a premature liquidation of bank financed projects irrespective of their NPV. Hence, profitable investment returns will not be realized. A run also disturbs the investors' intertemporal consumption plans. Total costs can be even higher given the systemic risk associated with a run on a single bank. In the simplest case, a run may spread over the banking system if shocks are correlated across banks or if depositors merely believe in those similarities (Chari and Jagannathan 1988). If the worst comes to the worst, however, true contagion may force otherwise sound banks into trouble. This occurs, e.g., when the liquidity needs of one bank are sufficiently large to create an economy-wide shortage of liquidity, which then spills over to other banks once the affected bank withdraws its deposits held with other banks (Allen and Gale 2000) while at the same time, solvent banks cannot raise liquidity when information about banks' assets is asymmetric in the interbank market (Freixas et al. 2000).

More subtle kinds of contagion come without any direct linkages between banks. One is related to incomplete information processing by investors and thus inefficient changes in sentiments leading to herd behavior (Banerjee 1992). Another kind of contagion arises when a bank, in its attempt to generate liquidity by selling assets in a fire sale, puts downward pressure on the value of other banks' assets. In order to meet their own liquidity demand, these banks will start liquidating bank assets that have not changed in their values so far. That way, the run spills over across different banking markets and affects all banks in the system (Fecht 2004). In addition, by

⁷ Surveys of the literature on contemporary banking theory and on banking regulation encompass Bhattacharya and Thakor (1993); Freixas and Rochet (1997); Bhattacharya et al. (1998); Santos (2001); Dionne (2003); VanHoose (2006).

⁸ Since 1970, there were 117 banking crises in 93 countries and 51 non-systemic runs in 45 countries (Caprio and Klingebiel 2003).

trying to withhold liquidity, a troubled bank may offer higher interest rates on deposits that translate into higher refinancing costs for other banks, which therefore also fall into distress (Diamond and Rajan 2005).

To sum up, a run on a single bank is associated with severe externalities.⁹ Given these externalities, institutional arrangements averting runs that are not caused by the misbehavior of banks are beneficial. But some proposals are ill-suited from the outset (Santos 2001). For example, with restricting banking activities to narrow banking, where a bank invests only into liquid and riskless securities, banks no longer add value; the same holds if banks were forced to refinance themselves with only long-term debt or equity. Alternatively, a suspension of convertibility in the case of substantial withdrawals, putting the bank at risk, does not work when liquidity needs cannot be perfectly anticipated.

Introducing a deposit insurance scheme, however, is often seen as an effective instrument to prevent a bank run and to provide a safety net.¹⁰ But when it cannot be made contingent on the cause of a run, deposit insurance has several drawbacks. For example, banks will invest in unduly risky assets and reduce reserves while incentives for depositors to monitor and to exert market discipline are reduced (Saunders and Wilson 1996; Demirgüç-Kunt and Huizinga 1999; Laeven 2002a, b, c). In the debate about deposit insurance, several other flaws were uncovered, and different ways to optimize insurance schemes have been discussed. For instance, Chan et al. (1992) argue that deposit insurance schemes based upon risk-sensitive, actuarial calculations, which strive for fighting incentives to excess risk taking, cannot be implemented, whereas other insurance schemes lead to inefficient cross-subsidization within the banking sector. As a result, strong banks will opt out of the scheme. In addition, deposit insurance may come along with deadweight losses for other sectors (Bhattacharya et al. 1998). A different approach is to foster market discipline by limiting coverage or introducing coinsurance in a way that interest rates on deposits depend on a bank's profitability, liquidity, and risk. For example, with limited coverage (or an insurance ceiling), some depositors such as large ones, institutional investors, corporate enterprises, other banks or foreign investors, can be excluded from insurance.¹¹

Adverse incentives caused by full deposit insurance coverage can also be mitigated by further restricting a bank manager's scope of activities. Genotte and Pyle (1991), e.g., argue that incentives to capitalize on deposit insurance benefits can be alleviated when bank managers face a restriction on the maximum volume of deposits, i.e., when there is a minimum capital adequacy as put forward by the first

⁹ There are other externalities even when no bank run occurs. They arise because of dysfunctional bank-internal capital markets (Dietrich and Vollmer 2006), inefficient cross-subsidization between borrowers (Jakivuolle and Vesala 2007) and implied disincentives for bank-financed firms (Dietrich and Hauck 2007). In addition to these externalities associated with the specifics of the banking business, there are other potential reasons for regulating banks. From political economy view, e.g., there may be political capture, while industrial economics teaches to control market power.

¹⁰ In 1980, only 16 countries had explicit deposit insurance schemes. By 1999, this number was 68 (Garcia 1999; Demirgüç-Kunt and Sobaci 2001).

¹¹ Avery et al. (1988) and Park (1995) present evidence that large depositors enforce higher interest rates.

Basel accord. Capital adequacy ratios, however, may result in an increase of a bank's probability of default and therefore cause bank instability. Based upon portfolio theoretical considerations (Pyle 1971; Hart and Jaffee 1974), it has been argued that a flat rate capital requirement may induce banks to choose even higher risks (Kahane 1977; Koehn and Santomero 1980). To remedy this adverse incentive effect, Kim and Santomero (1988) have proposed to adopt risk-sensitive capital standards. However, even then a bank may choose too high a probability of default when liability is limited, which may be prevented with an additional minimum equity base (Rochet 1992; Blum 2007). Alternatively, adverse investment incentives can also be mitigated if only depositors benefit from deposit insurance rather than the banker. This idea can be translated into policy by assigning the control rights over bank assets to the regulator or insurer in a state-contingent fashion, i.e., when insurance claims are filed (Dewatripont and Tirole 1993a, b).

While deposit insurance mainly aims to prevent single bank runs and to protect depositors, a lender of last resort (LLR) has been assigned the task to shield bank-financed firms from being prematurely liquidated. In most cases, LLR means discretionary provision of emergency liquidity to a single financial institution or the financial markets by the central bank (CB) usually only against first-class collateral. Such emergency lending to illiquid but solvent banks can be justified if—due to lack of information—interbank markets do not work smoothly. Because the failure of an insolvent financial institution may have systemic consequences, CBs sometimes also consider the provision of risk capital as being part of their LLR function. Since this may create a moral hazard on the part of commercial banks, CBs often are ambiguous about whether or not they act as LLR and therefore maintain secrecy about the conditions under which financial assistance will be granted (Freixas et al. 2000).

Regulating banks is a particularly difficult task when several regulators with different mandates and potentially conflicting interests are in charge. The discussion often neglects this feature of real world regulation. Sometimes, the interplay between different regulation schemes is taken into account. For instance, the relationship between bank closure policies and deposit insurance pricing (Pennacchi 1987; Acharya and Dreyfuss 1989; Allen and Saunders 1993), between LLR and deposit insurance (Kanas 1986; Sleet and Smith 2000), and between bank capital regulation and deposit insurance have been considered. But these studies assume that different regulatory authorities are driven by common interests. Exceptions are Repullo (2000) and Kahn and Santos (2005). Repullo (2000) analyzes to which regulatory authority the task of an LLR should be assigned with: the central bank or a deposit insurer. He concludes that the central bank should act as LLR when a bank's liquidity needs are small, but that the deposit insurer is in charge when they are large. Kahn and Santos (2005, 2006) further argue for allocating supervisory power to the deposit insurer and identify conditions under which centralizing LLR and deposit insurance functions is inefficient. In particular, when incentives to share information are weak, the allocation of regulatory power across government agencies should be contingent on their respective comparative advantages in gathering and utilizing relevant information.

To sum up, externalities justify bank regulations and supervision, but all measures taken by authorities change the balance between efficiency and stability of the banking system. Thus, it still remains an open question as to what accounts for a “first best” in banking regulation and supervision. Hence, it is not surprising that different countries may have chosen different regulatory and supervisory frameworks. Moreover, in many countries, existing regulatory and supervisory frameworks were not designed from scratch as the outcome of a theoretically founded debate but evolved from a political discourse, often during a financial crisis. This, at least, applies for the two countries considered here, as we will show now.¹²

3 The evolution of bank regulation and supervision in Japan and Germany

3.1 Origins and developments of bank regulation and supervision in Japan

Japan’s financial development began after 1870 through adaption of Western institutions (Aoki et al. 1994; Cargill 2001).¹³ The Japanese banking system originally combined elements of Anglo-American commercial banking with Continental European long-term credit banks. Because entry was easy, the banking industry at first became very decentralized with many small and medium-sized banks. This changed after the financial crisis of 1927, when government regulation started to favor financial stability over competition and efficiency. Due to enforced mergers and acquisitions, the number of banks declined significantly throughout the 1930s with banks providing funds to groups of firms owned by families (“zaibatsu banks”) gaining in importance. Though the zaibatsu were dissolved after the war and zaibatsu control over banks was removed, bank stockholding in non-financial firms was continued to be allowed. This bank equity holding was instrumental for maintaining and reviving old zaibatsu connections leading to the post-war Japanese main bank system where banks practice close relationship finance (instead of arms’s-length banking) with repeated transactions between the supplier of funds and the user of funds.

Bank regulation originally followed a *laissez-faire* approach. In the aftermath of the 1927 crisis, however, the regulatory framework changed to a regime of administrative guidance of financial institutions by the government, especially the Ministry of Finance (MOF) (Ueda 1994; Vitols 2001; Hori 2005, pp. 94–99) which continued to hold after World War II. Without explicit legal basis, state bureaucracy enjoyed discretionary powers over financial institutions since new banks needed MOF permission to enter into the market, and existing banks needed approval for many actions like opening of new branches. Banks followed administrative guidance since it limited competition and helped to secure rents (Rixtel 2002). In

¹² Much of the information presented in the following sections stems from Barth et al. (2006) and from personal interviews with representatives of the respective institutions and from their websites. See <http://www.fsa.go.jp>; <http://www.dic.go.jp>; <http://www.bundesbank.de> and <http://www.bafin.de>.

¹³ For a study that exemplifies the history of Japanese banks using the case of Mitsui Bank see Ogura (2002).

addition to administrative guidance, issuing of bonds and equity was restricted, and the introduction of new financial products required authorization by MOF; international capital flows were controlled and interest rates were regulated under “window guidance” (Suzuki 1987; Vitols 2003). All these measures were taken under the so-called “convoy system” which implicitly guaranteed the survival of financial institutions (as long as all guidances were observed). Bank shareholders were granted little control rights since their goals were seen as different from those of firms and the economy as a whole. For example, disclosure rules were lax and rules made takeover bids more difficult than in other countries; finally, almost all shareholder meetings took place on the same day. As a consequence, market discipline was missing as it was implicitly assumed that the banking system was fail-proof (Aoki et al. 1994; Porter et al. 2000).

Financial deregulation began in the early 1970s but proceeded very slowly. A formal deposit insurance system, in addition to the still intact convoy system, was introduced in 1971. It was funded mainly by public capital, and insurance payments were limited by law for a single case (“payoff cost limit”). Interest rate liberalization started late in 1979 by first permitting unregulated interest rates for large commercial deposits and was completed in 1994. In accordance with theory, the incomplete and imbalanced deregulations in combination with implicit bailout guaranties incited Japanese banks to invest in less regulated but risky and unfamiliar assets (Hori 2005, pp. 102–103). Since large corporations in the manufacturing sector, the traditional bank loan customers, increasingly raised funds from the capital market, banks started shifting their lending to the real estate industry. While in 1984, outstanding loans to real estate industry amounted to only 27% of the figure for the manufacturing sector, this number increased to 74% by the end of 1991 (Noguchi 1994, p. 295). When financial liberalization completed, however, market participants began to shift portfolios away from the real estate market as monetary policy tightened; the resulting sharp fall in asset prices caused substantial losses, and it became impossible to sell assets. Firms could not keep up the interest payments on their borrowed funds, and banks remained with nonperforming loans on their portfolios (Ueda 2000; Nagahata and Sekine 2002).

Japanese authorities reacted to the financial crisis by taking a piecemeal and tentative approach that did not solve the underlying problems (Cargill 2001; Nakaso 2001; Hori 2005, pp. 99–118). In 1993, capital regulation, as laid down by the Basel I accord, came into effect. In response, weakly capitalized banks in particular increased their risky lending activities (Woo 1999; Watanabe 2008); hence, adverse incentive effects of capital regulation, as suggested by theory, actually prevailed. In 1994, the Governor of the Bank of Japan (BoJ) announced termination of the convoy system. Shortly thereafter, in December 1994, two major credit unions (“Tōkyō Kyōwa” and “Anzen”) failed. Fearing a systemic crisis, authorities (under the leadership of MOF and Tōkyō Metropolitan Government) decided to recapitalize these banks such that they became able to fully payout depositors. However, due to the existing payoff cost limit, the Deposit Insurance Corporation of Japan (DICJ) was not allowed to finance this measure completely on its own. Despite the earlier announcement of the BoJ Governor, BoJ funded a new bank

jointly with private financial institutions in order to resolve the crisis.¹⁴ In addition, DICJ provided financial assistance within the payoff cost limit, and the private financial institutions provided low-interest loans. While it was difficult for financial institutions to reject authorities' demands for additional funds in 1994, this political pressure was not sufficient in the case of the failure of another credit cooperative in August 1995. Eventually, in 1996, the Deposit Insurance Law was amended: Payoff cost limits were temporarily lifted, insurance premiums were increased, and a new Chief Executive Director was appointed by the MOF and separated from the office of the Deputy Governor of BoJ.

As more and more banks and security firms failed, among them Sanyō Securities, Yamaguchi Securities, Jūsen Housing Loans Associations, and the Long Term Credit Bank of Japan, Japanese authorities were looking for an efficient means to channel public funds into the financial sector. In February 1998, a law was enacted that explicitly introduced public funds to solve the financial crisis.¹⁵ In total, 30 trillion Yen were made available, partly to cover losses from failed banks, while the rest was distributed among still vivid banks (Cargill 2001). A newly created Financial Management Committee was responsible for selecting banks which needed capital injections and to decide on the amount of money to be infused. The committee, however, did not possess any supervisory powers and lacked information about individual banks. Banks were thus reluctant to apply for capital injections because they feared to be singled out as a weak institute. Thus, all major banks collectively applied for capital injections to avoid stigma. As a result, major banks received a capital injection of only 1.8 trillion Yen, which was regarded as being far too small (Nakaso 2001).

After some public debates with regards to whether capital should be injected into weak banks on a compulsory basis, in October 1998, a new law replaced the one which was created in February.¹⁶ Under this new law, a failed bank could either be placed under Financial Reorganisation Administration or be temporarily nationalized (Fukuda and Koibuchi 2006). In both cases, the management was replaced, and a thorough cleaning-up of the balance sheet was pursued where losses were covered first by existing share-holders and the residual by the Deposit Insurance Corporation. Moreover, a second law came into effect and established a Financial Reconstruction

¹⁴ As for BoJ, this measure was legitimated as being part of its LLR function which included not only liquidity support but also risk capital provision (Hatakeda 2007). The new bank ("Tōkyō Kyōdō Bank") was later reorganized into a "bad bank" or "bridge bank", the Resolution and Collection Bank (RCB), which was designed as the general assuming bank for failed credit cooperatives. In 1999, RCB was reorganized into the Resolution and Collection Corporation (RCC) which was given the capability to purchase bad loans from banks (Nakaso 2001; Hori 2005).

¹⁵ "Law Regarding Emergency Measures for Financial Stabilization". According to Hori (2005), the provision of public funds to financial institutions before their failure was heavily criticized by opposition parties in the Japanese Parliament (Diet).

¹⁶ These measures were part of the "big bang" reforms initiated by Prime Minister Hashimoto which started with the elimination of foreign exchange controls and included the revision of the Bank of Japan Law which provided BoJ more formal independence from MoE. See Cargill (2001); Ito and Melvin (2001). The Hashimoto reforms applied some "New Public Management" principles to Japan's central government, namely policy evaluation for ministries and agencification as a means of decentralization. See Yamamoto (2003).

Table 1 Number of cases of financial assistance in Japan: 1992–2006 (in billion Yen)

Fiscal year	Number of cases of financial assistance	Grants	Asset purchases	Others
1992	2	20.0	–	8.0
1993	2	45.9	–	–
1994	2	42.5	–	–
1995	3	600.8	–	–
1996	6	1,316.0	90.0	–
1997	7	152.4	239.1	4.0
1998	30	2,674.1	2,681.5	–
1999	20	4,637.4	1,304.4	–
2000	20	5,157.4	850.1	–
2001	37	1,641.8	406.4	–
2002	51	2,318.7	794.9	–
2003	0	–	–	–
2004	0	–	–	–
2005	0	–	–	–
2006	0	–	–	–
Total	180	18,607.0	6,366.3	12.0

Source: Deposit Insurance Corporation of Japan, http://www.dic.go.jp/english/e_katsudou/e_katsudou1-2.html

Commission as the parent organization of the also newly founded Financial Supervisory Agency. The Financial Supervisory Agency took over regulatory and supervisory powers from the Banking Bureau and the Securities Bureau of MOF, from local finance bureaus of MOF in each prefecture and from prefecture governments (which were regulating credit cooperatives). In July 2000, this new agency was renamed Financial Services Agency (FSA) and has been established as the main body entrusted with the regulation and supervision of commercial banks.¹⁷ Since the previous MOF style of supervision was “almost entirely compliance-gearred” (International Monetary Fund 2003a), it conducted little off-site monitoring or other regular contact with supervised institutions. Under new FSA rules, off-site supervision has developed and been combined with the inspections function that has been designed to ensure that banks comply with the law and that their financial statements are produced in accordance with MOF guidance.

During the financial crisis of the 1990s, Japan has injected almost 25 trillion Yen of tax payers’ money into the banking industry (Table 1). At the same time, the crisis resulted in a reorganization of banking regulation and supervision, a division of jurisdiction away from the MOF and the establishment of FSA as, in cooperation with DICJ, the principle institution responsible for bank regulation and supervision in Japan. During this period, a paradigm shift away from the convoy system toward an explicit and comprehensive safety net with still some government bailout of failed banks took place.

¹⁷ For details on the establishment of FSA see Hori (2005, pp. 121–126).

3.2 Current Japanese regulatory and supervisory framework

Under the currently ruling regulatory framework the FSA is an external organ of the Japanese Cabinet Office and is managed by the Commissioner who is appointed by the Prime Minister (Hori 2005, p. 125).¹⁸ There is no board or other collective decision making body (International Monetary Fund 2003a). The FSA controls entry into the financial sector for banks, security firms and insurance companies. DICJ has no own regulatory powers. FSA grants licenses, sets bank regulations and supervises banks. It is the only body responsible for bank regulation in Japan, but it shares supervisory authorities with the Bank of Japan. On-site inspections in banks are conducted annually for major banks and biannually for all other banks.

The minimum amount of capital required for entry is 2 billion Yen. It is legally required that the applicant submits information on the source of funds to be used as capital; moreover, sources of the funds must be verified by the FSA. There are no restrictions on the maximum percentage of bank capital that can be owned by a single owner; banks are allowed to hold ownership on non-bank financial firms. In line with Basel I, the minimum capital-to-asset ratio is 8% for internationally active banks; it is only 4%, however, for domestic banks. The ratio is roughly risk-weighted, but does not vary with individual bank's credit risk or market risk. Accounting practices for banks are in accordance with International Accounting Standards (IAS) as well as with US Generally Accepted Accounting Standards (GAAP).

In accordance with universal banking principles, there are only minor restrictions on bank activities; real estate business is prohibited, and the owning of non-financial firms by banks is restricted. Periodic external audits are compulsory; auditors have to be licensed or certified and have to submit a copy of their report to FSA. However, FSA has no right to meet with external auditors to discuss their reports without the approval of the bank in question, and auditors are not legally required to inform the supervisory agency about presumed involvement of bank directors or senior managers in illicit activities, fraud, or insider abuse. FSA may take legal action against external auditors for negligence. Moreover, it may force a bank to change its internal organizational structure.

Deposits are insured through above described DICJ, which is a semi-governmental organization.¹⁹ It is subject to supervision through FSA and is by law required to seek approval from the government on various issues, including budget and operational manual. DICJs capital comes from the government, the Bank of Japan, and private financial institutions; a very small amount is also provided by labor cooperatives. Moreover, DICJ raises funds from the market using government guarantees; during the financial crisis, loans from BoJ and Government grants were also used. Participation in the deposit insurance system is compulsory for most banks. The deposit insurance premiums are collected regularly in advance from the insured financial institutions; they have to be paid within three months after the

¹⁸ The Cabinet Office has been created following the Hashimoto reforms to facilitate inner government policy co-ordination efforts (this information is owed to one referee).

¹⁹ For the following information see the annual reports of DIJC.

Table 2 Scope of deposit protection in Japan

	Deposits	April 2002–March 2005	From April 2005
Deposits within the scope of protection	Current deposits	Full coverage	Full coverage for deposits for payment and settlement purpose, which bear no interest and meet other conditions (permanent measures)
	Ordinary deposits		
	Specified deposits		
	Time deposits	Total up to a maximum principal of JPY 10 million plus accrued interest thereon	
	Installment savings	The portion in excess of JPY 10 million will be paid, depending on the state of assets of a failed financial institution (subject to deductions)	
Deposits outside the scope of protection	Money trusts under the guarantee of principal		
	Bank debentures (custody products)		
	Foreign currency deposits	Not protected	
	Negotiable certificates of deposits	Payable depending on the state of assets of failed financial institution	
	Money trusts under no guarantee of principal	(some may be unpaid)	

Source: Deposit Insurance Company of Japan (2006)

beginning of each business year (although the premium may be split into two semi-annual payments). The premium is calculated on the basis of the average daily balance of deposits (and other claims) throughout the previous fiscal year. Beginning with fiscal year (FY) 1996, the premium rates effectively sum up to 0.084%; they are not based on any assessment of risks. From 1996, all deposits were fully covered, but this blanket guarantee has been gradually lifted since 2003 (see Table 2). During fiscal year 2003 and 2004, only demand deposits were covered in full, and since 2005, only “deposits for payment and settlement purposes” are fully protected. Other deposits, current deposits, ordinary deposits and specified deposits, are insured in total up to a maximum principal of ¥10 million plus accrued interest per depositor per financial institution.²⁰ Foreign currency deposits, negotiable certificates of deposit, money trust under no guarantee of principal etc. are not protected. This also holds for interbank deposits. In FY 2006, the coverage limit was 2.5 times GDP per capita.

In case of a bank failure, DICJ does not pay insurance benefits directly to depositors but transfers, in whole or in part, the operation of the failed institution to an assuming institution and provides public assistance to either the failed institution or to the assuming institution. Financial assistance may take the form of a monetary grant, loan or deposit of fund, purchase of assets, guarantee or assumption of debts, subscription of preferred shares, or loss sharing (Deposit Insurance Company of Japan 2006). From 2005 onwards, not all deposits are covered; hence, certain restrictions were imposed on the business of failed banks to prevent an outflow of

²⁰ In the two years from April 2003 to the end of March 2005, the full amount for current deposits, ordinary deposits, and specified deposits was fully protected.

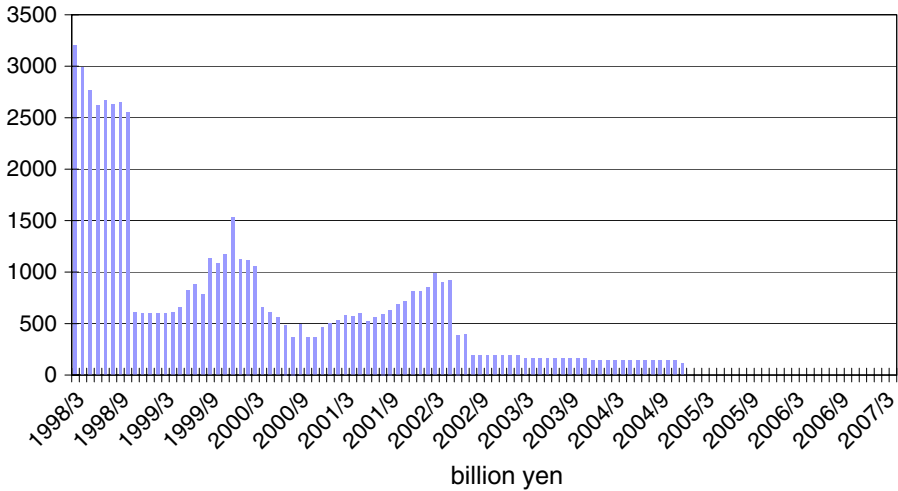


Fig. 1 Volume of special loans under Article 38 of BoJ Law (outstanding stock in trillion Yen). *Source:* Bank of Japan

assets. After a failure, non-performing assets of a failed institution are transferred to the Resolution and Collection Corporation (RCC) with the purpose to sell these assets at a market price. The sound assets and the insured deposits are transferred to an assuming bank which continues the business of the failed bank. To accelerate proceedings, the Japanese Parliament (Diet) passed a law allowing for a temporary nationalization of troubled banks.²¹ In the case that an assuming bank cannot be found at the time of failure, the assets and deposits are transferred to “The Second Bridge Bank of Japan, Ltd.”, a 100% subsidiary of DICJ which aims at temporarily continuing the operations and seeking an assuming financial institution. Normally, this procedure is limited to two years, but it can be extended to three years.

Besides deposit insurance, the Bank of Japan supplies liquidity to banks and financial institutions as LLR. It is stipulated in Bank of Japan Law that BoJ may offer uncollateralized loans, with interest rates and procedures specially set by the policy board, (i) to cover an unexpected temporary shortage of funds due to accidental causes (Article 37), (ii) to maintain an orderly financial system (Article 38), or (iii) to contribute to the smooth settlement of funds (Article 39). Loans under Article 38 are granted on the request of the Prime Minister and the Minister of Finance. These “special loans” have been granted in the past in several cases (see Fig. 1).

In exercising this LLR function, Bank of Japan is involved in bank supervision and conducts on-site examinations as well as off-site monitoring: Examiners visit financial institutions periodically, review asset quality and risk management of financial institutions. Examined institutions will be informed at least one month

²¹ “Law concerning Emergency Measures for the Reconstruction of the Functions of the Financial System”; the law allowed a replacement of the management and a cleaning-up of the balance sheet. The first case was the failure of Long-term Credit Bank of Japan, which was nationalized in October 1998.

prior to the actual visit, and banks have to give their consent. On-site supervisions are not an exercise of administrative power, and thus no legal penalties are imposed on institutions that refuse to accept BoJ's request for an on-site examination. However, if an intended examination is refused by the banks or if consent cannot be received, BoJ may publicly announce this fact or even expel financial institutions from BoJ's current account service. Moreover, at the request of the Commissioner of the Financial Services Agency, BoJ may inform FSA about the results of the on-site examinations.²²

3.3 Origins and developments of bank regulation and supervision in Germany

Unlike Japan, where banking institutions were imported in the 18th century, Germany developed a banking system on its own (Tilly 1986, 1991). The forerunners were small private banks which emerged in the late 18th century, owned by a single person or a family. They were superseded in significance by commercial banks which were founded as joint-stock companies after the relaxation of corporation laws in 1870. The second important group were credit cooperatives which developed after 1850 independently in urban and rural areas as self-help organisations that made loans to members who could not obtain loans otherwise. Savings banks also emerged in the first half of the 19th century as institutions that provided safe deposits for poor and middle-class people; they were often (though not always) owned or controlled by some level of government as the municipality, a district, or a province.

Competition among banking groups was an important impetus for German banks to become universal banks that offer a full range of different services under a single roof (Guinnane 2002). In the beginning, these groups developed an implicit division of labor with different banks concentrating on different markets, but later banking groups competed with each other in many markets. Competition was present especially in the deposit market where banks from one group started to intrude on other group's territories. Banks also began to copy procedures pioneered by other groups; this process of imitation, however, did not mean that groups became identical since they remained distinguishable by their assets and liabilities, ownership, legal status, and clientele. Group-based coordinations and cooperations hence play a major role in Germany, though along different lines than in Japan: While in the Japanese main bank system, business networks are built on company groups with close interconnections cutting across sectors and with one bank acting as the main bank for the whole network, in the German universal banks system, competition is more among the groups than within them (Baums 1994; Patrick 1994).

²² The threat to be expelled from BoJ's current account services became very effective since the beginning of the Quantitative Easing Policy in March 2001. According to Baba et al. (2005, p. 16), all financial institutions in Japan became heavily dependent on BoJ's open market operations because the uncollateralized interbank market has almost collapsed due to low interest rates that did not even cover trading costs. In the meantime, however, the interbank market has recovered.

Similar to Japan, banking regulation in Germany could be characterized as *laissez-faire* until the end of the 1930s (Born 1967). After the banking crisis in 1931, however, a number of large banks was effectively nationalized, and a corporatist bank regulatory regime was established which involved “self-regulation” through bankers’ associations; it combined public and private regulation in the sense that government provided incentives for association membership and declared association decisions as binding (Schmitter and Streeck 1985; Vitols 2003). This corporatist regulatory regime was reinstalled after the war but supplemented by governmental bank regulations and supervision performed by the Bundesländer. In 1957, the Deutsche Bundesbank was founded as a second pillar responsible for bank regulation and supervision, and with the passage of the German Banking Act (Kreditwesengesetz, KWG), a Federal Bank Supervisory Agency (“Bundesamt für das Kreditwesen” BAKred) was founded in 1962 that became the third pillar of bank regulation and supervision in Germany.²³

Deposit insurance in Germany started in the 1930s when the cooperative banking sector initiated the foundation of a financial aid fund for cooperative banks that ran into difficulties during the great depression (Deutsche Bundesbank 1992; Beck 2002). Commercial banks and saving banks did not have an insurance scheme until 1966 when the federation of private commercial banks (Bundesverband deutscher Banken, BdB) founded a scheme where membership was voluntary. The savings banks sector followed in 1969. Due to the failure of the Herstatt Bank in 1974, private commercial banks decided to further the existing scheme to a fully-fledged deposit insurance that covered all deposits; this was done to pre-empt statutory regulations. Also in 1974, the Liquidity Consortium Bank (LCB; “LiKo-Bank”) was founded on the initiative of the Deutsche Bundesbank. It is a private bank that provides liquidity to solvent banks with a liquidity shortage. It is jointly owned by the Bundesbank and all German banking associations. The federal government strongly urged the foundation of an insurance scheme that protects depositors and prevents systemic risk; compulsory deposit insurance with mandatory membership, however, was regarded as objectionable because it would hollow out civil liability.

Therefore, three independent deposit insurance schemes have evolved with one for each banking group. The insurance schemes for cooperative banks and savings banks provide indirect deposit insurance because they safeguard the viability of every single bank (institutional protection; “Institutsschutz”); the insurance scheme for commercial banks offers direct deposit insurance per depositor of up to 30% of a bank’s liable capital; however, depositors are not legally entitled to claim this amount. Claims of institutional investors, in particular interbank deposits, are excluded from insurance. Membership in all three deposit insurance schemes is mandatory, but all three deposit insurance schemes do not protect depositors in the case of a systemic crisis.

To comply with EU directives, the federal government made deposit insurance compulsory for all private or public deposit-taking institutions in 1998; the minimum deposit-coverage was 20.000 Euro and a coinsurance of 10% was allowed

²³ The Bundesamt was the regulatory authority only for the banking industry; in addition, there were separate regulatory agencies for insurances and security firms.

(Deutsche Bundesbank 2000a). Unlike previously existing rules, a bank's license expires if a bank is not a member of a compulsory deposit insurance scheme or is being expelled from such a scheme. Statutory compensation schemes could be operated, however, by existing private-law deposit insurance schemes that were assigned the functions of an "entrusted compensation scheme"; they are now subject to supervision.²⁴ The statutory protection is supplemented, if a credit institution is additionally a member of a deposit insurance scheme operated by the banking associations.

3.4 Current German regulatory and supervisory framework

Banking regulation and supervision currently lies with the Federal Financial Supervisory Authority ("Bundesanstalt für Finanzdienstleistungsaufsicht", BaFin), which is assisted by the Deutsche Bundesbank (Deutsche Bundesbank 2000b). Supervision is also conducted by the private banking federations. The BaFin is a public agency accountable to the German Minister of Finance. It was established in 2002 when the regulatory bodies for banks, insurances, and security firms, which by then separately existed, were merged into one institution. Hence, the BaFin is a uniform governmental regulatory authority for all financial institutions ("Allfinanzaufsicht"). While the BaFin takes regulatory decisions, the operational supervisory process lies mainly with the Bundesbank (Deutsche Bundesbank-Bundesanstalt für Finanzdienstleistungsaufsicht 2002). Onsite inspections in medium and large-size banks are conducted annually.

The BaFin grants commercial bank licenses. The minimum capital entry requirement for opening a bank is five million Euro (which is identical for domestic banks and for German-based foreign branches or subsidiaries). It is not legally required that the applicant submits information on the source of funds to be used as capital; moreover, sources are not verified by BaFin. There are no restrictions on the maximum percentage of bank capital that can be owned by a single owner; bank ownership of non-bank financial firms is allowed. Beyond the Basel accords, the minimum capital-to-asset ratio requirement is 8% for all existing banks (and 12.5% for newly established banks in the first three years of business). The ratio is risk-weighted and varies as a function of the individual bank's asset risks. Accounting practices for banks are neither in accordance with International Accounting Standards (IAS) nor with US Generally Accepted Accounting Standards (GAAP).

In accordance with universal banking principles, there are no restrictions on bank activities; however, insurance business is restricted. Periodic external audits are obligatory; auditors have to be licensed or certified and have to submit a copy of the auditor's report to BaFin. The Federal Financial Supervisory Authority has the right to meet with external auditors to discuss their report without the approval of the bank, and auditors are required by law to inform the supervisory agency of any presumed involvement of bank directors or senior managers in illicit activities,

²⁴ Members of schemes safeguarding the viability of institutions, i.e., cooperative banks and savings banks, are exempted from compulsory membership in a statutory compensation scheme (Deutsche Bundesbank 2000a).

fraud, or insider abuse. BaFin may not take legal action against external auditors for negligence, but can refuse an external auditor according to the German Banking Act (“Kreditwesengesetz”, KWG). Moreover, it may force a bank to change its internal organizational structure. German Banking Law does not stipulate explicitly verifiable and quantifiable guidelines regarding asset diversification for commercial banks. However, according to article 19 of the by-laws of the European System of Central Banks, commercial banks are forced to hold minimum reserves with the central bank on which they earn interest. In addition, section 11 KWG requires banks to hold enough liquidity reserves; weighted short-term assets should not be smaller than weighted short-term liabilities. Banks are not allowed to or required to hold reserves denominated in foreign currencies.

As mentioned above, the German deposit insurance system comprises two different schemes; both are funded by the banks and not by the government (Deutsche Bundesbank 2000a). For commercial banks which are members of the BdB, all deposits are insured practically without any limit where the insurance fund of the BdB also covers the retention remaining from the compulsory scheme as well as any amount above 20.000 Euro per depositor. The fund refinances itself by fees from the member banks.²⁵ Since 1998, premiums in the voluntary protection scheme are risk-adjusted: Member banks are subject to an annual classification undertaken by a private limited liability company for assessing private banks (“Gesellschaft für Bankbeurteilung im privaten Bankgewerbe mbH”) which is a subsidiary of the Audit Association of the German Banks. Banks are classified into three groups (A, B, and C), with the last one being sub-classified again into three groups. Banks belonging to class A are regarded as little risk-prone. They pay a general annual premium of 0.03% of their balance sheet item “amounts owed to customers”. Banks in groups B and C have to pay higher premiums—up to 2.5 times the standard premium. Payments of premiums can be suspended if the assets of the deposit insurance fund are at a level seen as appropriate. Moreover, banks in class A which have paid more than 20 annual contributions can be exempted. In the event of drawing on deposit insurance by commercial banks which are members of the BdB, the banking federation is allowed to take any measures suitable to avoid severe financial distress of the bank. This includes restricting lending and deposit-taking as well as personnel measures, i.e., it can dismiss managers and even take over ownership of the bank. Moreover, claimants have to subrogate their rights to the deposit insurance fund.

The compulsory scheme does not apply to banks for which the viability is safeguarded by virtue of their by-laws, as for example to savings banks and “Landesbanken” as well as to credit cooperatives and their regional institutions. For those institutions being members of such mutually supportive banking groups, direct deposit insurance does not only cover liabilities since the respective banking federation (“Deutscher Sparkassen- und Giroverband”, DSGV, and “Bundesverband der deutschen Volks- und Raiffeisenbanken”, BVR) is obliged to guarantee the existence for each single bank (“Institutsschutz”).

²⁵ By law, Deutsche Bundesbank or European Central Bank are not allowed to act as lender of last resort to the deposit insurance scheme. However, it is expected that “in case of a systemic crisis, a political solution will be found” (Deutsche Bundesbank 1992; Beck 2002, p. 706).

4 Japanese versus German banking regulation: similarities and differences

Although the question of what constitutes the best practice in banking regulation and supervision is still unsettled, the literature review from Sect. 2 has given some hints as to how banks should be regulated. In this section, we compare the current Japanese and German regulatory frameworks and ask what framework is likely to be more efficient.

4.1 Independence of regulatory institutions

The current institutional structure creates more scope for the Japanese regulatory authorities than for the German authorities to be subject to political pressure. As mentioned above, the operations of FSA are controlled by the Minister for Financial Services and hence by the Cabinet.²⁶ This could result in conflicts of interest between financial stability and other political goals. The FSA is, e.g., responsible for ensuring that banks increase their lending to SMEs to ease a potential credit crunch (International Monetary Fund 2003a). Moreover, FSA is managed by a commissioner (and not by a board), which means less personal independence from the Ministry. Finally, FSA is funded from central government funds and has no budgetary independence; it cannot charge fees for the regulatory services it provides to banks. Moreover, FSA's and DICJ's autonomy is further confined by Article 102 of the Japanese Deposit Insurance Law. It provides that if a failure of a financial institution poses a serious threat to the financial system, the Prime Minister can, on the advice of the Financial System Management Council, enforce financial assistance through DICJ, meaning recapitalization of a not yet failed bank with public funds.

This is in contrast with Germany, where a large part of regulatory and supervisory authority lies with the banking associations. In addition, Deutsche Bundesbank enjoys formal, personal, and financial independence from other government agencies. The BaFin is also functionally and organizationally independent from the Ministry of Finance. Although the latter acts as the “supreme official authority”, it refrains from giving instructions and does not interfere with the supervision of individual financial institutions in practice. Moreover, BaFin is managed by a board and enjoys some financial independence because its operations are completely financed by the institutions supervised (International Monetary Fund 2003b).²⁷ German regulatory bodies are independent also from EU authorities with two notable exceptions already mentioned: Firstly, there is EU directive regarding

²⁶ Though being a separate agency, FSA seems to be independent from governmental directives; see the cases reported in The Japan Times Online (2001); Mulgan (2002) or Negishi (2003). While prior to the reforms MOF was the sole decision making authority, under the new regulatory framework, the “decline in the influence of the Ministry of Finance is offset by an increase in the influence of politicians”, Cargill (2001, p. 159).

²⁷ Commercial banks sometimes complain high costs and demand that BaFin's operational costs are borne by the Government, these demands were rejected by the Minister of Finance; see Handelsblatt (2006). The International Monetary Fund (2003b) on the other hand notes concerns that the interests of supervised institutions receive too much weight on the Board (10 out of 21 members are from supervised institutions).

minimum requirements for deposit insurance and, secondly, the EU directive regarding the implementation of Basel II bank capital requirements.

4.2 Distribution of regulatory and supervisory powers

In comparison to Germany, regulatory and supervisory powers are less dispersed in Japan. DICJ is not involved in bank supervision at all, and even FSA operates with negligible supervisory personnel and, therefore, its inspections are often criticized by BoJ as being too lenient (Mulgan 2002). Almost all supervision is done by BoJ which examines banks and major financial institutions. According to the International Monetary Fund (2003a), there are, however, no formal procedures for a regular exchange of information, although such exchanges take place on an ad hoc basis, and FSA and BoJ maintain close contact at operational and senior official levels (Miyao 2008). Nevertheless, a request for information could be rejected on legal and confidentiality grounds (International Monetary Fund 2003a).

In Germany, much bank supervision is done by BaFin, Deutsche Bundesbank and the banker's federations which are also responsible for the insurance schemes. In the area of banking supervision, BaFin and Bundesbank cooperate in principle, though complaints about the lack of information are often reported. According to a recent survey, most commercial banks criticize a doubling of workload under the current system and prefer surveillance only by Deutsche Bundesbank (Deutsches Institut für Wirtschaftsforschung 2006; Bundesminister der Finanzen 2007; Paul et al. 2007).²⁸ Moreover, all members of the BdB have to be members of the Auditing Associations of German Banks that also conducts a lot of bank auditing, both on-site and off-site (see Beck 2002). Prompt corrective actions can be imposed if circumstances indicate increased riskiness in the bank's business or a violation of banking laws.²⁹ Penalties may restrict the volume of deposit business or particular types of lending.

4.3 Deposit insurance schemes and management of a financial crisis

Japanese and German deposit insurance schemes are also quite different; Table 3 compares both deposit insurance schemes with deposit insurance schemes around the world.³⁰ While the Japanese deposit insurance scheme is compulsory, publicly managed and jointly (publicly and privately) funded, the German scheme is voluntary, privately managed, and privately funded; the government is assumed to intervene only in the case of a systemic crisis and in case of losses beyond the

²⁸ The existing division of labor between BaFin and Bundesbank is currently a matter of a political debate, especially between the Minister of Finance and the Minister of Economic Affairs. While the former wants to strengthen BaFin's position, the latter prefers a stronger role of Deutsche Bundesbank in supervision; a stronger role of Bundesbank is also demanded by the Council of Economic Advisers (see SVR 2007).

²⁹ As reported by Beck (2002), problems with SMH-Bank were discovered in the 1980s by the BdB; these problems, however, remained undetected by supervisory offices.

³⁰ For an in-depth analysis of the German deposit insurance scheme see Beck (2002). Demirgüç-Kunt and Sobaci (2001) compare deposit insurance schemes around the world.

Table 3 Deposit insurance schemes in Japan and Germany (BdB)—comparisons to world average

	Japan		Germany (BdB) ^a		World average
			Statutory protection		
	Yes	No	Yes	No	
Explicit Coverage limit	10 billion Yen ^b		Up to 90% of a deposit (maximum 20,000 Euro)	Per depositor up to 30% of the liable capital of the institution	68 countries On average three times per capita GDP
Coinsurance	No		Yes ^c	No	17 out of 68 countries have coinsurance
Foreign currency deposit covered?	No		Yes	Yes	Covered in 48 out of 68 countries
Interbank deposit covered?	No		No	No	Covered in 18 out of 68 countries
Funding	Ex ante funded; during crisis a de facto ex post system due to shortage of funds		Ex ante funded, but additional funds callable	Ex ante funded, but additional funds callable	58 out of 68 countries have funded schemes
Source of funding	Government, Bank of Japan, and banks		Banks only	Banks only	Private: 15, Public: 1, Joint: 51
Management	Public		Private; public supervision of the insurance scheme	Private	Private: 11, Public: 33, Joint: 24
Membership	Compulsory		Compulsory	Voluntary	Compulsory in 55 out of 68 countries
Risk-adjusted premiums	No		No	Yes	21 out of 68 countries have risk-adjusted premiums

Sources: Deutsche Bundesbank (2000a); Beck (2002); Demirgüç-Kunt and Sobaci (2001)

^a Cooperative banks and savings banks enjoy institutional protection so that deposits are indirectly insured

^b Blanket guarantee for payment and settlement deposits

^c Voluntary deposit insurance covers 10% coinsurance of depositors

private insurer's capacity (which has not happened yet). Both schemes offer almost unlimited coverage for depositors who, hence, do not have any incentive to exercise market discipline and to monitor and discipline banks. Due to its public nature, the Japanese insurance scheme relies on public monitoring while the private nature of the German scheme promotes peer monitoring and discipline by banks that have strong incentives to monitor one another. While insurance premiums are risk-adjusted in Germany, no such risk-adjustment is practiced in Japan.

In case of a bank failure, DICJ usually does not liquidate the bank and payout depositors, but follows the financial assistance method (“purchase and assumption”, P&A) and transfers tangible assets and deposits to an assuming bank. P&A was used because it had the prospect of being less costly than the straight deposit payout method.³¹ In case that such an assuming bank cannot be found immediately, the Second Bridge Bank steps in. In contrast to this, deposit insurance by the German BdB conducts both a straight deposit payout and a transfer of deposits to another financial institution. The decision on and the selection of the assuming bank are made by the insurance scheme on a cost basis (Beck 2002).³² Moreover, there is no public resolution and collection corporation for bad loans in Germany comparable to the RCC in Japan.³³

4.4 Lender of last resort

Though the members of the European Monetary Union (EMU) jointly conduct monetary policy, lender of last resort assistance is still a national responsibility; national central banks have, however, agreed to cooperate in crisis management and to share information during financial crises. Possible liquidity impacts have to be managed in a way that the unified monetary policy stance in the EMU can be maintained. Deutsche Bundesbank has announced that it will provide liquidity only temporarily to individual solvent banks (via loans from LCB against collateral) to handle possible liquidity shortages in individual banks. Conflicts of interest between LLR and deposit insurance are prevented because LCB is commonly owned and managed by Deutsche Bundesbank and bankers federations. According to Beck (2002), the LCB has no incentive to lend to failing banks because resulting costs have to be borne by the deposit insurance schemes.

Deutsche Bundesbank itself does not provide liquidity to insolvent individual banks nor act as a lender of last resort to deposit insurance schemes in order to avoid possible conflicts of interest between a central bank's function in monetary

³¹ See Gilbert (1992) for a comparison between both methods; whether P&A is less costly than liquidation depends on the premium paid by the assuming bank.

³² In the case of the recent failure of ‘Privatbank Reithinger’, BaFin in September 2006 declared that this bank was not able anymore to pay out depositors; they were informed and paid out by the deposit insurance scheme of the BdB. For details see the webpage of BdB: <http://www.bankenverband.de/channel/101832/art/1836/index.html>.

³³ Only the cooperative banking sector maintains such a private resolution company called “Bankaktiengesellschaft Hamm”, which resulted from a failure of a cooperative bank in 1984. In 2003, there was some public discussion to establish a public “bad bank” in Germany but this plan was rejected (Frankfurter Allgemeine Zeitung 2003). Instead, commercial banks increasingly use credit derivatives to hedge risk, especially credit default swaps (see Deutsche Bundesbank 2004a, b).

stabilization policy and safeguarding financial markets. If the failure of a bank should overly burden the financial capacity of a deposit insurance scheme or endanger the whole banking system, the Bundesbank regards it to be the political task of the government to decide what has to happen in such a case of “too big to fail”. This action should not be calculable in advance (Deutsche Bundesbank 1992).

Unlike Deutsche Bundesbank, the Bank of Japan abstains from such a “constructive ambiguity” and rather wants to base LLR assistance on a set of predetermined principles which seem to be better placed in terms of transparency and accountability. Further differences concern the BoJ’s uncollateralized loans to banks and non-bank financial institutions at interest rates and amounts set individually by the Policy Board; moreover, the BoJ also lends to the deposit insurer at the official discount rate.

4.5 Bank stability

Since 1999, the IMF has conducted stress tests to assess the stability of banking systems in different countries as part of the Financial Sector Assessment Program; such stress tests were conducted in the first half of 2003 for Germany and in the second half of the same year for Japan. The aim of such stress tests is to detect potential weaknesses of the banking system when it is faced with extremely intensive changes in credit risk and in market prices or with deteriorating macroeconomic conditions.³⁴ In Germany, stress tests were done for a significant increase in a borrower’s probability of default (of 30% and 60%, respectively), for a 30% decline in stock market prices within a period of one month, for a significant shift in the yield curve, and for a 15% exchange rate change of the Euro against the US-Dollar within one month. Moreover, macro stress tests were conducted which assumed that several risk factors were positively correlated. In Japan, credit risk stress shock was a 3% loss of book value of their portfolios; market risk stress shocks were a 20% decline in equity prices and a 200 basis point increase in yields; macro stress tests were conducted for a combined decline in share prices by 20% and an increase in interest rates by 1%. All tests determined the consequences of these market changes for the bank’s risk-adjusted capital ratios.

In Germany, stress tests were conducted for two banking groups, the first one containing only large, internationally active banks and the second one a number of further Landesbanken, saving banks and cooperative banks (see Deutsche Bundesbank 2003). As a result, an increase in the probability of default amounting to 60% in the most extreme case led to a decrease of the risk-weighted regulatory capital ratio to 9%, which is distinctively higher than the 8% ratio required by Basel regulations. The same applies for equity risk, which is the most important market risk for large internationally active banks and which could lead to a loss of equity capital up to 20%: Even in this case, however, no bank undershot the 8% capital ratio. Macro stress tests also did not indicate a risk to the stability of the German banking system (Deutsche Bundesbank 2003).

³⁴ The methodology is explained in International Monetary Fund (2003b) and in Deutsche Bundesbank (2003).

Table 4 Fairly priced insurance premiums in Japan, Germany, and the U.S. (1991–1999)

Premium (% of deposits)	Japan	Germany	U.S.	Average developed countries	Average developing countries	Average all sample countries
$\rho = 1.00$	0.090	0.000	0.002	0.042	0.322	0.188
$\rho = 0.97$	0.417	0.152	0.009	0.153	0.641	0.407

Source: Hovakimian et al. (2002, p. 31); Laeven (2002b, pp. 52–53)

Things were, however, different in the case of Japanese banks, which did not all pass the similar stress tests (see International Monetary Fund 2003b). In Japan, stress tests were conducted for two banking groups, the first one containing city banks and cooperative central banks, and the second group containing regional banks. The IMF concluded that single market stress events consumed a high portion of the financial system's risk bearing capacity. City banks had the largest equity exposures, and cooperative sectors' central banks had the largest interest risk exposure. Market stress endangers the risk-bearing capacity of many banks, especially of city banks; regional banks are less vulnerable to market stresses. A combined credit risk and market risk shock would completely decimate book shareholder equity in a large number of banks (see International Monetary Fund 2003a).

Beside market stress tests, several studies try to estimate to what extent deposit insurance schemes are “fairly priced”, over-priced, or under-priced and whether they contend either a subsidiary or a tax to banks.³⁵ Fries et al. (1993) find evidence that Japanese banks were highly subsidized by deposit insurance agencies during 1975 and 1992. Hovakimian et al. (2002) calculate country averages of actuarially fair deposit insurance premiums for the period 1991 to 1999 for a sample of 25 developing countries and 23 developed countries. The premiums are expressed as a percentage of deposits and are estimated under the assumption of no regulatory forbearance ($\rho = 1.00$) and under the assumption of a regulatory forbearance parameter of $\rho = 0.97$; the calculations assume that all bank debt is insured.³⁶ The results are reported in Table 4 which shows that Germany had a relatively low fair deposit insurance premium compared to Japan. The authors also conclude that deposit insurance was under-priced in Japan and that Japanese banks were granted considerable subsidies during the 1990s.³⁷

5 Why did Japan and Germany make different regulatory choices?

The current Japanese regulatory framework evolved during a time of financial and macroeconomic crisis, and this fact is reflected in the chosen design of rules

³⁵ Most of these studies use the option-pricing model (Merton 1977) that considers deposit insurance as a put option on the bank's assets.

³⁶ A regulatory forbearance parameter of $\rho = 0.97$ ($\rho = 1.00$) assumes that the book value of a bank's assets can fall to 97% (100%) of the bank's debt before the bank is closed by regulators.

³⁷ For similar results see Laeven (2002a, c).

(Amaya 2008). Before the financial crisis, DICJ was provided with two policy options in case of bank failures: The liquidation of the failed bank and payoff of deposits (up to an amount of 10 million Yen per depositor) or financial assistance where the business of the failed bank was transferred to an assuming bank (which received financial help). When the first two credit unions failed in December 1994, authorities decided to avoid liquidation and the payoff of deposits, but opted for financial assistance for several reasons: Firstly, legal limit to the amount of financial assistance to be offered in a single case became effective, but turned out to be counter-productive (Nakaso 2001). Secondly, a fundamental change had taken place in July 1993 when the Liberal Democratic Party (LDP) lost its dominant role in Japanese politics and its importance in the decision-making process of the Government and the Diet. As a consequence, LDP politicians favored public financial assistance to failed banks since they feared spillovers from liquidation to farm-related financial institutions and to the farming sector; farmers were regarded as the most important support group for the LDP (Hori 2005).

Since authorities could not find an assuming bank as crisis was already systemic, Bank of Japan and private financial institutions were forced to establish a new bank that assumed the business of failed cooperative banks. Capital injections came from BoJ and the financial sector and were a substitute for insufficient financial assistance by DICJ. This semi-private sector solution, however, did not result in a voluntary, privately run protection scheme as a supplement to the statutory deposit insurance because after one of the next bank failures, authorities concluded that it would no longer be possible to raise the necessary amount of funds from private financial institutions. Moreover, financial institutions feared that contributions to failing banks would erode their profitability and impair their market position. Instead, the payoff limit for DICJ was lifted in 1996 and the government stepped in after a fierce debate in the Diet. The lifting of the payoff-limit gave authorities leeway to handle financial crisis without private financial assistance, leading to an overall public bailout of the banking system (Nakaso 2001).

The Japanese experience contrasts with the German episode in 1976, where in fact the voluntary deposit insurance scheme was also introduced after a series of bank failures (especially after the closure of Bankhaus Herstatt), but where no public money was spent. Instead, authorities notified an amendment of the banking law (KWG), announced to establish a statutory deposit insurance scheme and to found a commission of experts (“Studienkommission Grundsatzfragen der Kreditwirtschaft”) with the task to prepare a proposal for banking reform. In reaction to these announcements and to prevent statutory measures, the BdB proposed a privately run solution as well as the expansion of the existing insurance scheme. The commercial banks had to react quickly because depositors began to shift deposits to run-proof savings banks which were regarded as safe due to their “Institutsschutz”. The German government accepted because the proposal offered a blanket guarantee for deposits (which was more than originally provided in the statutory deposit insurance plan) without incurring any costs for the government. The banker’s federation kept the management of the insurance scheme and member banks agreed because they preferred to open their books to their own umbrella organization instead to showing detailed information to the government (Busch

2001, 2004). It seems that in both cases, the Japanese and the German governments tried to vent pressure from the financial industry but with different targets and by different means: While in Japan a politically instable government provided public money to rescue an already destabilized banking industry, the German government forced the financial sector to find a privately organized solution and to create a regulatory framework able to prevent future crises.

After the failure of a privately organized rescue package, BoJ provided first-aid and injected risk capital into financial institutions because neither DICJ nor the government had an institutional framework to inject capital into banks with solvency problems. Later, BoJ financial support was substituted by DICJ managed financial assistance. This change in the allocation of regulatory powers and of liquidity provision from BoJ to DICJ is broadly in line with theoretical considerations of banking regulation as surveyed in Sect. 2: If liquidity shocks are relatively small, liquidity should be provided by the central bank while with higher liquidity shocks, this task should be allocated to the deposit insurer. Besides allocating these functions centrally, the optimal allocation of liquidity providing functions can also be achieved in a decentralized fashion by letting bank owners choose which agency to turn for support (Repullo 2000; Kahn and Santos 2005). Interesting enough, such mechanisms, indeed, were working in Japan during the financial crisis: After the default of Sanyo Securities in November 1997, which was outside the coverage of the deposit insurance system, BoJ decided not to intervene because it assessed that the case did not have systemic implications. Market participants in Japan, however, reacted and tended to withdraw deposits and preferred to hold cash or to deposit with still implicitly insured banks, i.e., the postal savings system or banks which were regarded as too big to fail (see Nakaso 2001). The Japanese government reacted in February 1998 by explicitly introducing public money to protect depositors and to create a fully-fledged deposit insurance scheme.

The resulting Japanese safety-net, however, did not allocate any supervisory functions to the deposit insurer, and DICJ does not have the right to expel any commercial bank from the insurance scheme. This is also in contrast with Germany where both the voluntary and the statutory compensation schemes may expel banks from coverage. This is more in line with banking theory than the current Japanese solution: In a multi-regulator arrangement, where the central bank is responsible for the provision of emergency liquidity and the deposit insurer is responsible for the provision of deposit insurance, it is advantageous to endow the deposit insurer with the right to withdraw insurance coverage. Without this right, banks could protect themselves against failure in the case of small liquidity shocks by holding enough liquidity; hence, regulators are not able to close the bank even if its probability to survive is small and closure is optimal from a social point of view. This may lead to excessive forbearance, provided that the political costs of bankruptcy are high. If, however, the deposit insurer has the right to expel a bank from insurance coverage, the bank may be closed even for small liquidity shocks, and though there is excessive forbearance, this problem is less severe (Kahn and Santos 2005).

6 Japan versus Germany: what lesson can be learned?

This paper offered a comparative case study of bank regulation and supervision in Japan and Germany. It was shown that different regulatory regimes have evolved in Japan and Germany after the Second World War and that—despite conventional wisdom—banking systems in Japan and Germany should therefore not be lumped together in one model. While Germany has created a multi-regulatory framework with strong corporatist elements and with explicit deposit insurance, Japan has followed a centralized approach to banking regulation and supervision and combined a regime of administrative guidance with an implicit guarantee of survival for even the weakest financial institution. In accordance with theoretical predictions, these Japanese regulatory arrangements led to too much forbearance and created financial instability almost unknown to German financial markets.

During the financial crisis of the 1990s, the Japanese regulatory framework broke up and a transformation to an explicit safety-net took place that still comprises considerable government involvement and public finance. Despite these changes, major reforms are still due in Japan. In its financial system stability assessment report, the International Monetary Fund (2003a) demanded more independence for Japan's regulatory and supervisory institutions and the introduction of a clear legal framework, where neither the Prime Minister nor the Minister for Financial Services have a role in taking decisions on individual supervised institutions. This report also proposed more use of independent external auditors and a better exchange of information with BoJ and other regulatory bodies like FSA. Moreover, supervisory powers should be allocated to DICJ, which still lacks the existence of a well-trained staff for on-site and off-site examinations. Deposit insurance premiums should be risk-adjusted to prevent excessive risk-taking by deposit taking financial institutions. Though financial markets showed much more stability in Germany than in Japan, regulatory reforms are also on the agenda. The International Monetary Fund (2003b, pp. 4–7) demanded reforms of the public-owned Landesbanken to address the phasing out of public guarantees and a legal framework that reduces existing legal and other barriers to restructuring within or across the three pillars. Moreover, it demanded the phasing out of existing regional limitation to banking.

While these recommendation follow from cross-country studies of the kind mentioned in the introduction, a comparative historical institutional study of the Japanese and German cases as done in this paper offer some more lessons to be learnt for politicians. The first lesson concerns politicians in emerging market economies, like China, which in the past had committed extensive publicly-financed bailouts (Barth et al. 2004; Kudrna 2007); politicians in these countries might learn from the German example that one can reap the advantages of a bank-based financial system without submitting banks to administrative guidance and implicitly guaranteeing the survival of the unfittest bank. The second lesson concerns politicians in other bank-based financial systems who might learn from the Japanese case that a bailout of troubled banks might lead to even greater financial problems in later periods. Finally, the last lesson affects Japanese politicians who might learn from the German example that the assignment of regulatory powers to private bankers' clubs and thus the introduction of hybrid regulations with some corporatist

elements might be an efficient way to regulate the banking industry and offer an interesting alternative to a purely public regulatory framework.

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