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Hans-H. Bleuel

The German Banking System and the Global Financial Crisis: Causes, Developments and Policy Responses

Düsseldorf Working Papers in Applied Management and Economics

Electronic copy available at: http://ssrn.com/abstract=1365813

The German banking system and the global financial crisis: causes, developments and policy responses

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Abstract: Germany's banking sector has been severely hit by the global financial crisis. In a German context as of February, 2009, this paper reviews briefly the structure of the banking industry, quantifies effects of the crisis on banks and surveys responses of economic policy. It is argued that policy design needs to enhance transparency and enforce the liability principle. In addition, economic policy should not eclipse principles of competition policy.

Key words: bank, banking crisis, financial crisis, economic policy, Germany

Inhalt: Der deutsche Bankensektor ist durch die internationale Finanzkrise schwer getroffen. Auf Deutschland und die im Februar 2009 verfügbaren Informationen bezogen, werden die Struktur des Bankensektors kurz umrissen, die Effekte auf die Banken quantifiziert und wirtschaftspolitische Reaktionen aufgezeigt. Ziel der Wirtschaftspolitik ist es, die Transparenz zu erhöhen und das Haftungsprinzip durchzusetzen. Darüber hinaus sollten Grundsätze der Wettbewerbspolitik nicht in den Hintergrund geraten.

Schlagworte: Bank, Bankenkrise, Finanzmarktkrise, Wirtschaftspolitik, Deutschland

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1. The German banking structure

The German financial system is based on banks. Accordingly, these financial intermediaries play an important role in channelling funds from lenders to borrowers. This is highlighted by the amount of bank assets, which were double the GDP-figure in 2007 (IMF 2008), a very high ratio in an international perspective. Beyond its economic importance the German banking industry is characterised by the predominance of universal banks. These institutions engage in all fields of bank business activity. Universal banking in Germany is closely linked to the so called *Hausbank* approach. A *Hausbank* is the prime lender for companies, particularly small and medium-sized enterprises. Typically it has a long term relationship to the corporations and offers a wide range of services (Benston 1994: 121-31). Additionally, many commercial banks have traditionally been represented in the supervisory bodies of large corporations with a related corporate governance system that is based on insider control mechanisms. This so-called *´Deutschland AG´* was characterised by equity holdings of manufacturing enterprises by the financial intermediaries. By the same token banks and insurance companies were represented in the supervisory bodies of the enterprises. Following the trend of shareholder value management these equity stakes have been reduced substantially in the last decade (Kellermann 2005). So banks and insurance companies have concentrated on their core business. Accordingly, there are signs of convergence of the bank-based German financial system towards the market-based Anglo-American model. These revisions bring up questions in the scientific community as to whether the elements of the German financial system are still coherent (Krahnen and Schmidt 2003).

The universal banks are classified in three groups that differ by legal form and ownership structure. These form the so-called ‘three-pillar banking system’, a term often used to describe the German banking industry as a whole. The structure of those three pillars plus the specialised bank sector is highlighted in Table 1.

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	Number	Assets (€bn)	Avg. assets / bank (€bn)
First pillar: commercial banks	**272**	**2,530,694**	**9,304**
Big banks	5	1,520,699	304,140
Regional or other commercial banks	164	809,667	4,937
Branches of foreign banks	103	200,328	1,945
Second pillar: savings banks	**448**	**2,682,317**	**5,987**
Primary savings banks	438	1,619,614	3,698
Landesbanks	10	1,062,703	106,270
Third Pillar: cooperative banks	**1,206**	**953,579**	**791**
Primary cooperative institutions	1,204	290,725	241
Regional cooperative central banks	2	662,854	331,427
Specialised banks	**62**	**1,926,638**	**31,075**
Mortgage Banks	20	826,572	41,329
Building and loan associations	25	188,984	7,559
Banks with special functions	17	911,082	53,593
Total	**1,988**	**8,093,228**	**4,071**

Data source: Bundesbank (2008)

Table 1: Structure of the German banking industry in 2008

Commercial banks (´Kreditbanken´) are privately owned and have the principal intent to realize profits. Commercial banks only account for 14 per cent of the total number of banks, but own 31 per cent of the banking assets. These figures indicate that the best-known big German banks belong to this group. According to the statistical classification of the Bundesbank five banks form this sub-group of big banks: the Deutsche Bank, the Dresdner Bank, the Hypo-Vereinsbank, the Commerzbank and the Deutsche Postbank. These banks are active on a national and international level. The second sub-group of commercial banks comprises smaller institutions. Together with the branches of foreign banks as the third sub-group they offer various bank services on a national or regional level. Their market share is however far below the figure of the five big German commercial banks.

The second pillar of the universal bank sector is the savings bank group consisting of the primary saving banks (*Sparkassen*) and their head institutions called Landesbanken. These intermediaries operate on a regional basis only and are owned by public law institutions such as cities, districts or federal states. Banks of this group have an autonomous legal status, yet their supervisory bodies (*Verwaltungsrat*) are manned with representatives of the respective public owner. According to the savings bank law the institutions are obliged to serve the public interest of their region. This is to foster savings and economic development in a regional perspective. However, even if an explicit profit target is not the first priority of the savings banks, it has become the factual objective of banking operations.

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Public guarantees that exist for the saving banks due to the public ownership have been discussed intensively. In fact the public entities are liable without restriction in the event of a default. This guarantee has two facets. Firstly, there is a maintenance obligation (*Anstaltslast*) as a commitment to equip the institution under public law with the necessary means to fulfil its public mission. Secondly, a bail-out obligation (*Gewährträgerhaftung*) exists. This is an unlimited responsibility of the public owner for the liabilities of its public law institutions. This bail-out obligation is only relevant in case of a liquidation of a savings bank, as the maintenance obligation applies as a first line of defence in case of financial distress. As these two guarantees back the savings banks completely, a solvency risk is virtually non-existent with ensuing lower refinancing costs. This results in a clear distortion of competition. The European Commission assessed the guarantees as the equivalent of subsidies and initiated two agreements in 2001 and 2002 with Germany to abolish both *Anstaltslast* and *Gewährträger-haftung* by 2005. However, liabilities incurred before July 2005 and maturing before 2016, in addition to all liabilities incurred before July 2001, will be grandfathered. Accordingly, the savings bank group is currently in a state of transformation to adapt to competitive conditions. Yet the savings bank group is still immune to takeovers and thus protected from other forms of competitive pressure. Savings banks are not for sale. A takeover by a commercial bank would imply losing the aspect to serve the public interest as defined by saving banks laws. The regional principle also impedes competition between saving banks, as each institution is prohibited from operating outside its local area. So competition in rural areas is typically with cooperative banks and in municipal cities with commercial banks (Siebert, 2004: 12-15).

The primary saving banks only operate on a local level. They may typically not hold shares outside the savings bank group, trade money market, equity and foreign exchange instruments on their own account or take part in an underwriting consortium. These fields of business are covered by the Landesbanks that are mainly active on the regional level. Yet, following their investment banking activities these institutions have become increasingly involved in international business including some foreign subsidiaries. In addition to those commercial and investment banking activities the Landesbanks serve as a *Hausbank* to their federal states. As such they provide cash management services and grant loans, which are mainly refinanced by bonds. Further they act as a central clearing institution for the interbank transfers of primary savings banks. Together the Landesbanks and primary saving banks offer a truly universal banking service. The Landesbanks are currently in a process of consolidation. The Landesbank of Rheinland-Pfalz merged with the Landesbank Baden-Würtemberg (LBBW). In 2008 the LBBW also took over the state bank of Saxony, the SachsenLB.

The third pillar of the universal bank sector is the credit cooperatives sector (Genossenschaftsbanken). Credit cooperatives are typically owned by their clients and profits are distributed as dividends to the members owning the cooperative. The number of credit cooperative members is currently close to

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sixteen million. Usually a broad ownership is required by the statutes and shares cannot be sold. For raiders it is almost impossible to gain control over cooperative banks, as each member only has one vote irrespective of the value of his share. Thus, the cooperatives are not subject to the market of corporate control (Siebert 2004: 17).

The cooperative sector shares many features of the savings banks group. Primary cooperative institutions operate according to the regional principle. As such they mainly provide retail banking services to their customers. Since 1974 loans can also be granted to non-members. The role of the two central institutions of the credit cooperative group (DZ-Bank and WGZ-Bank) is comparable to the Landesbanks of the savings bank group. They provide cash management services, enable deposits and credits within the credit cooperative group and offer additional commercial and investment banking services (Hackethal, 2003: 83-5).

The institutions of the three pillars differ significantly regarding their business models. The commercial banks have a relatively high share of international financing, whereas the primary savings banks and cooperatives are financed domestically, mainly by deposits of the non-financial sector. Thus, the primary savings banks will not suffer significantly from the abolishment of state guarantees. This is quite different for the Landesbanks that source one-third of their financing from bonds. Interest rates for these bonds have been traditionally 25 to 40 basis points below market level, an advantage that will phase out (Brunner et al. 2004: 24-5). Assets also mirror the differing business models of the universal banking group. Commercial banks as well as the head institutions of the savings banks show a high degree of internationalisation. The international links are particularly high for the big five commercial banks, with the Deutsche Bank being the only German bank in a top 20 ranking of the world's biggest banks by assets (Bankersalmanac, 2009). In contrast, granting loans to domestic individuals and companies is the major business of primary savings banks and cooperatives. The Landesbanks have the highest market share for credits to companies, followed by the big five commercial banks and the primary savings banks (Bofinger et al. 2008a: 91).

Besides the three-pillar universal banking structure there are some specialised banks in Germany. This group is extremely heterogeneous. The mortgage banks provide loans that are backed by liens on moveable or immoveable assets. Loans are refinanced by special bonds, the *Pfandbriefe*. Building and loan associations (*Bausparkassen*) finance themselves by deposits of their customers and provide loans for house building. The banks with special functions as the third sub-group grant loans to persons and institutions that are considered to be eligible for special funding. The state defines this funding eligibility with public targets like the promotion of small and medium-sized enterprises, reconstruction and development or support of foreign trade. The most important bank with special functions is the Kreditanstalt für Wiederaufbau (KfW). It is also active in the financing of projects of development policy, partly

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via its fully-owned subsidiary DEG (Deutsche Investitions- und Entwicklungs-gesellschaft).

As Table 1 shows, Germany stands out by the importance of the public savings banks and the credit cooperatives. These two groups account for approximately one third of the market each if measured by the value of assets. While the legal forms of these two banking groups allow for mergers within the groups, mergers and acquisitions with commercial banks are not feasible. Two-thirds of the entire market is thus not subject to the market of corporate control. Despite the high fragmentation of the German banking market there are barriers to inter-group competition. Competition intensity is also limited due to the regional principle of these two banking groups. Owing to this segmentation the number of banks overstates the degree of competition (Brunner et al. 2004: 6-23). This is supplemented by the fact that the reported profits are not of prime importance for the public sector banks. Yet, market conditions still impede foreign banks to enter the German market to a large extent. This is even more striking, as there no special hurdles to enter the market. Competitors from EU-countries actually have a 'free passport' to enter the country following the agreed principles of the second banking directive in 1989. Though the market share of foreign banks nearly doubled in the last decade to a value of roughly eleven per cent if measured by assets, this value is among the lowest for EU countries (vgl. Bofinger et al. 2008a: 86-7).

In spite of the special structural characteristics of the German banking market, there have been considerable market developments. The number of institutions has been reduced by roughly 27 per cent from the year 2000 to 2008. This concentration process increased the average assets per institution by 33 per cent. The concentration predominantly took place in the cooperative sector, which reduced its number of institutions from 2,039 in the year 2000 to the number of 1,206 in 2008. In the same period the number of savings banks was reduced by mergers from 580 to 448, whereas the number of commercial banks remained nearly constant. So consolidation occurred within and not across the pillars.

However, the restructuring which took place within the banking groups failed to deliver the intended increase in results. As Table 2 shows, the average return on equity was declining in every sub-group of the German banking system between 1994 and 2006. This decline in profitability is a distinctive development for the German banking industry in international comparison. Equivalent results apply for the return on assets. There appears to be no evidence that the cost situation of German banks is causing the shortfall in profitability. By contrast, low earnings appear to be associated with relatively low revenue generation (Brunner et al. 2004: 19-21). These findings support the view of a relatively intense competition on the German banking market. Yet, a reluctance to adopt new business models is another factor that is potentially impacting the revenue side. There is ongoing research to access these impacts empirically (Bofinger et al. 2008a: 101-11). A striking fact is to be observed regarding the profitability by banking sub-group.

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Big commercial banks, Landesbanks and the cooperative central banks show a distinctly lower return of equity compared to other to other sub-groups. Accordingly, the profitability gap is concentrated on large financial intermediaries with their high assets per bank figures, as shown in Table 1. These figures suggest that the respective banks have surely reached the size that offers the opportunity to realize large scale economies, as being estimated in prior research (for an overview refer to Bos and Kolari 2005: 1555-61). This argument once again supports the view that unfavourable cost positions that result from market fragmentation are not the cause for low profitability. To sum up: in spite of the structural particularities of the German banking market, which cushions some competitive mechanisms, there appears to be a sufficient degree of competition.

	1994-1999	2000-2006
First pillar: commercial banks		
Big banks	14.6%	5.3%
Regional and other commercial banks	12.6%	7.2%
Second pillar: Savings banks		
Primary saving banks	19.3%	10.1%
Landesbanks	9.8%	4.3%
Third pillar: credit cooperatives		
Primary cooperative institutions	15.5%	10.2%
Regional cooperative central banks	14.9%	5.0%

Data source: Bofinger et al. (2008a)

Table 2: Return on equity of German banks

2. Causes of the financial crisis

Global financial markets have faced disruptions since the year 2007. As the financial turmoil had harsh consequences for Germany and its financial market policy, it makes sense to review the development of the crisis briefly. In current economic commentaries there is a surprising consensus about the major mechanisms that wreaked havoc on the global financial system.[1] Today, there is a clear agreement that a hype in the housing markets of the United States was the root of the crisis. Originally, the boom of real estate markets was induced by the monetary policy of the Federal Reserve Bank resulting in low interest rates (Bofinger et al 2008b: 119-121). Thus, cheap money was available resulting in a

[1] Unfortunately for the economic profession, this is a mere retrospective consensus.

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high real estate demand. Accordingly, real estate prices rose constantly. This motivated high levels of borrowing, because individuals anticipated further price increases.

This speculative occurrence was bolstered by financial intermediaries. Credit to house owners was granted generously. Fair value accounting of banks also anticipated increasing real estate prices – a procedure that justified elevated credit approvals. In consequence, typical credit checks or ceilings were undermined. As credit approval procedures lacked prudence, substantial high-risk lending in subprime segments was the result. Such procedures have been fostered by the new 'originate-to-distribute' business model. Whereas banks traditionally had loans on their balance sheets (originate-to-hold), the new approach was to sell the generated loans to outsiders transferring the risks simultaneously. This was enabled by means of structured finance or more precisely: the securisation. Housing loans were polled in portfolios and sold as securities of several tranches on the financial market. In the bottom line long-term loans have been refinanced with short-term securities.

In this way the famous 'asset backed securities' ('ABSs') of today emerged, with the assets behind being the claims for the blend of the original mortgages. With this business model a formidable expansion of housing loans was possible (Blundell-Wignell et al 2008: 3-8). By selling the portfolios the underlying loans were removed from the balance sheets of the originators. One implication was that the transfer of loans to third parties hampered the incentive for a cautious risk evaluation of borrowers. This furthered lending activity in subprime segments. As a second effect of securisation the equity requirements for granted loans, as defined in the Basel accords, were circumvented. Originating banks achieved the off-balance sheet situation even for unsold parts of the loan portfolios by transferring assets to the special purpose vehicles ('SPVs'). So the available equity of banks was no limit for risky lending activities any more resulting in a high leverage of financial intermediaries. Furthermore, low interest rates as a result of monetary policy induced high leverage ratios of banks (Wehinger 2008: 2-6). These financial structures of banks increased return on equity and shareholder value in times of favourable business climate, yet to the burden of negative leverage effects in the case of an unfavourable business environment.

Selling the asset backed securities to other financial intermediaries was only possible due to the apparent low-risk characteristic profile of the structured products. Risk reduction was on the one hand accomplished through diversification of the portfolio and on the other hand through financial engineering. Here, the concept of tranching is of prime importance. A key goal of this process is to create assets with higher ratings than the average rating of the underlying assets. This is achieved by prioritisation of payments to so-called senior notes, followed by junior or mezzanine notes and finally the equity notes. Accordingly, losses of the portfolio are born by the different tranches in the opposite direction. The different tranches are the so-called collateralized debt

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obligations (CDOs), which cascading interest rates from senior to equity notes. The distilled senior tranches with excellent risk ratings accounted for up to 90 per cent of the portfolio with this figure illustrating the extent of apparent risk reduction. This judgment was delivered by credit rating agencies based on statistical methods such as the value-at-risk. The latter estimates a maximum loss of a portfolio at a given time horizon with a defined probability. To calculate this risk historical data are used. Yet, the relevant subprime loan default data were only available over a short period, which moreover was a period without adverse effects. With the excellent risk ratings the respective asset backed securities spread out in the financial systems, both domestically in the United States and internationally. The misjudged risk evaluation once again resulted in the absence of a sound risk provision by equity of financial intermediaries.

Against the background of this inadequate risk management, the financial system bore an inherent instability at the onset of the crisis. With several subsequent increases of the federal funds rate, mortgage rates experienced a similar upwards trend. This caused a higher debt service for households. Loan defaults swelled correspondingly in 2007 and the housing bubble burst. Increasing default rates required a re-evaluation of the asset-backed securities. The consequent write-offs caused losses of financial intermediaries, particularly in the United States and Europe. In Germany this first wave of the financial crisis affected especially the Industriebank AG and several Landesbanks such as the SachsenLB. Due to the sharp decline of demand for asset backed securities the originators came under pressure. The revolving short-term refinancing was disturbed and credit lines at the originating banks were used to bridge the gap. Stressed liquidity of some financial intermediaries was the result.

As a reflection of a changed risk perception and because of doubts about the solvency of banks, interbank markets came under pressure. The trigger point for this second wave of the financial crisis was the collapse of the American investment bank Lehman Brothers in August 2008, when not only equity holders but for the first time also borrowers experienced losses in the course of the crisis. Damaged trust in interbank business disrupted money markets (Fender and Gyntelberg 2008: 4-13). Interbank rates rose to levels well above the returns on bank assets. Chiefly banks with mismatching maturities of assets and liabilities such as the German Hypo Real Estate Group ran into liquidity problems. At the same time doubts were raised about the soundness of other US assets of financial intermediaries, such as credit card debt, corporate loans and derivative products. The melange of these bad positions is often referred to as ‘toxic assets’. In several steps banks announced write-downs which amounted worldwide to a total of 518 € bn. by the end of the year 2008. The losses are concentrated in Europe and North America, as shown in Figure 1. Yet, it is certainly advisable to be extremely cautious with the interpretation of any data due to both the dynamics of the crisis and the piecemeal approach of banks to announce write-downs.

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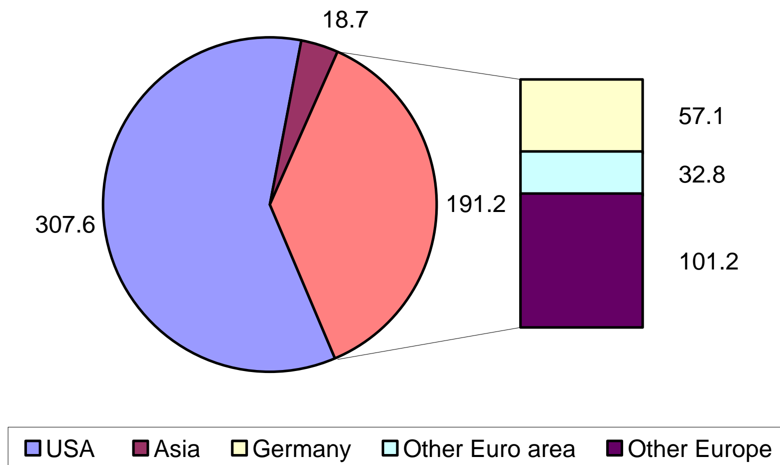

Data source: ECB (2008b); US-$ values converted at 1.37 US$/€

Figure 1: Bank write-downs by region (€ bn; 11/09)

With the foregoing financial crisis effects on the real economy ensued. As the write-downs reduced the equity of banks the scope of lending has been reduced. This causes worse loan conditions for the private as well as the corporate sector and reduces aggregate demand. Investment activities of the corporate sector are further hampered by increasing interest rates, which result from the credit crunch in the interbank markets despite of expansionary monetary policy of central banks worldwide. Furthermore, the present situation in early 2009 is characterised by a loss in confidence of economic subjects resulting in a deep recession.

3. Effects in Germany and policy responses

As already shown, the financial crisis had substantial effects on Germany despite its distinct financial market setting. Related to this the German situation rather results from international contagion than from domestic developments. Prices on real estate markets have been stable in Germany (Kholodilin et al. 2008), so that there is no parallel to the origin of the crisis in the United States. Additionally, financing in the housing sector is still conservative: mortgages are typically fixed rate annuity loans and have a typical credit ceiling of 60 per cent of the purchasing price. With this environment the situation in Germany is less

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complex as opposed to other countries, which had a housing boom prior to the crisis. As the crisis was transmitted internationally to Germany, the fragmented banking structure of Germany had unexpected positive effects. A low concentration of the banking industry resulted at first in diversification effects of the banking industry as a whole. Large parts of the banking system such as the primary saving banks and the credit cooperatives remain unaffected by write-offs. Only international players such as the big private banks, the Landesbanks and some special banks were victims of the first wave of financial crisis.

First instances of major write-downs are linked to two banks. In August 2008 the SachsenLB reported first losses owing to a subsidiary that was active in refinancing asset-backed securities. After an emergency rescue package to ensure liquidity, the SachsenLB was taken over by another Landesbank, the LBBW. Likewise the majoritarian private Deutsche Industriebank AG ran into liquidity problems as it was unable to refinance its special purpose vehicles via short-term commercial papers. By an increase in capital stock the Kreditanstalt für Wiederaufbau (KfW) augmented its share from 40 to 91 per cent and sold its share to the financial investor Lone Star a year later. In this early period economic policy was based on a case by case approach aiming to prevent a breakdown of the affected banks.

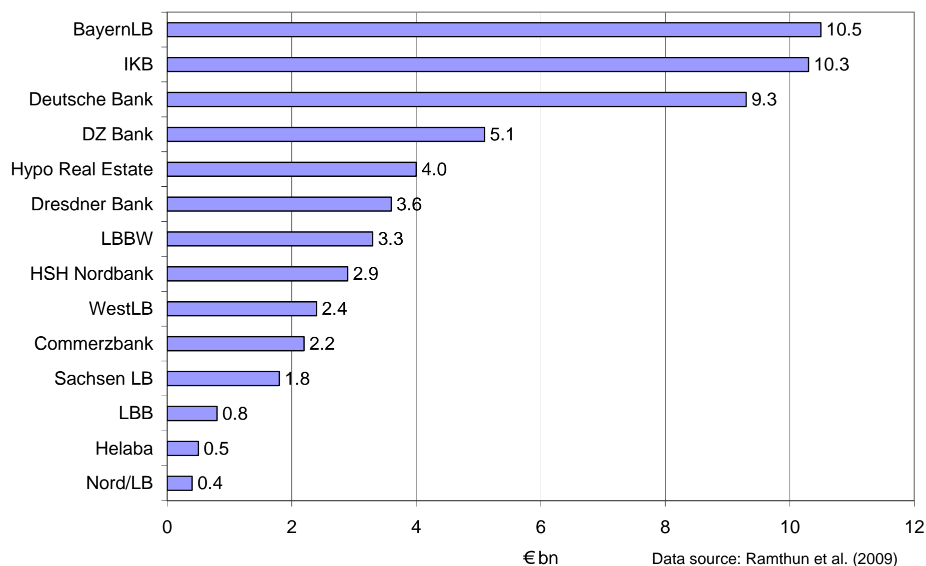

Figure 2: Write-downs and losses of German banks (12/09)

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With the spreading crisis other banks also experienced losses. As Figure 2 shows, the BayernLB was heading the list of write-downs by bank at end of 2008. The figures presented are, however, prior to any news that may come out as soon as annual reports for 2008 are published. Given this preliminary basis the realised write-downs of the savings banks group are disproportionate to their share of assets of the total banking industry. Corresponding data by pillar of the banking system are shown in Figure 3. Write-downs of the saving banks group only result from the Landesbanks with their international operations. This indicates that high risk taking and governance problems were present at least in some of the Landesbanks. The financial crisis fostered the reorganisation of the Landesbanks with the LBBW taking over two partner institutions. Similar discussions are currently taking place for another Landesbank, the WestLB of North Rhine-Westphalia. This bank has been subject to public discussion since 2003 due to its risky investment banking activities followed by losses in 2006 due to proprietary trading.

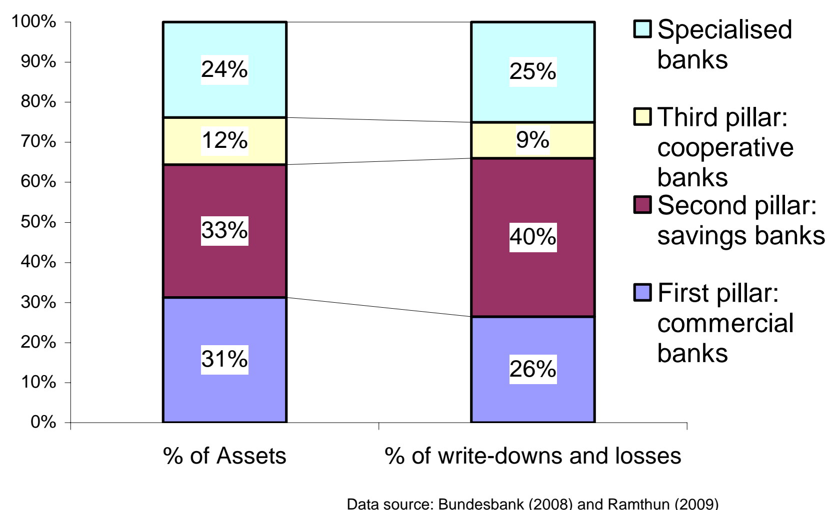

Figure 3: Distribution of assets and write-downs by banking group

However, in the course of the year 2008 things began to move fast with subsequent announcements of banks' write-downs. The private banks did not make an exception to this process. Since autumn 2007, when first write-downs were revealed, quarterly results included ever mounting figures for losses following the subprime crisis' spread to more and more types of assets. The

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URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

Deutsche Bank experienced the highest losses of all commercial banks, which results from its size and internationalisation. The write-downs of Dresdner Bank and Commerzbank were substantially lower, also if compared to their lower assets. The private bank being most threatened by insolvency in 2008 is the Hypo Real Estate that belongs to the group of specialised banks. Apart from write-downs of 4 € billion the bank ran into refinancing problems with its subsidiary Depfa, an intermediary active in government financing. At first the possible default of the Hypo Real Estate was politically handled as another special case. Guarantees of 50 € billion were granted in early October 2008. These events show that all types of German banks are affected by the financial crisis. The assets written down by end of December were split into a 51 per cent share of private banks of the first pillar and the special bank group, 9 percent of the cooperative bank group and 40 percent of public banks. Because public banks account for 42 per cent of the total bank assets in Germany, present data do not support the opinion that excessive risk taking has been limited to the public sector. Governance problems existed apparently irrespective of ownership structures.

The repeated emergency support actions for banks and the mounting pressure on money markets gave rise to a more systematic framework for bank support, the financial market stabilisation act *(Finanzmarktstabilisierunggesetz* or short: *FMStG*). Whereas the legislation in Germany normally is a semi-fluid process due to federal structures, the act was approved with astonishing speed on October 17th, 2008 after a tight week of consultation. The main objective of the *FMStG* is to stabilise money markets and banks accordingly, the so-called *Rettungsschirm* (emergency parachute) for banks. With an overall volume of 480 € billion this rescue pack is of larger scale in the international perspective when compared to the realised write-downs and losses of the financial sector, as shown in Table 3. With 400 € billion by far the larger part of the rescue pack is designated for guarantees of bonds and loans of banks. The remaining 80 € billion are for purposes of recapitalisation as well as purchases of non-performing assets for a term of three years.

	Capital injection	Asset purchases/ swaps	Guarantees/ loans / credit lines	Total	Bank write-downs	Rescue pack as % of write-downs
Germany	80	0	400	480	57	12%
Other Euro Area	121	98	1,283	1,502	33	2%
Other Europe	68	42	497	607	101	17%
USA	683	1,318	1,559	3,560	308	9%
Total	952	1,458	3,739	6,149	499	8%

Data source: ECB (2008); US-$ values for write-downs converted at 1.37 US-$/€

Remark: the 80 € bn for both asset purchases and capital injection in Germany are assigned to capital injection for the sake of simplicity.

Table 3: Comparative view of financial rescue packages

Ausgabe 8 (2009)
ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

The financial rescue fund (*Sonderfonds Finanzmarktstabilisierung* or short: *SoFFin*) is administrated by the *Finanzmarktstabilisierungsanstalt* (*FMSA*), a public institution especially setup for this purpose. By February 2009 a total amount of 117 € billion of guarantees has been granted to banks. For an overview by bank refer to Figure 4. The Hypo Real Estate with its ongoing solvency problems accounts by far for the largest share. Rumours about a planned nationalisation of this bank do not cease. The option of asset purchases was not used; apparently due to the fixed term schedule which would necessitate to record contingent liabilities on banks' accounts and thus impede the disburdening balance-sheet effect. The first capital injection was made at the Commerzbank in order to stabilize its situation after taking over the Dresdner Bank from Allianz in January 2009. A 25 per cent share of the Commerzbank now belongs to the German state, representing a blocking minority for any decision subject to approval of the shareholders' meeting. A different kind of government support was taken up by the Deutsche Bank in the course of the Postbank takeover. Following a renegotiation of 22.9 per cent acquisition of the Postbank shares, the Deutsche Bank achieved payment via an exchange of stocks. Accordingly, the parent of Postbank, the Deutsche Post AG, still state-owned by 30 per cent, now owns up to 8 per cent of the largest German commercial bank, officially a short-lived construction. So there is indirect state support for the external growth of Deutsche Bank as well, whereas the bank is currently insisting on not resorting to the rescue pack of SoFFin.

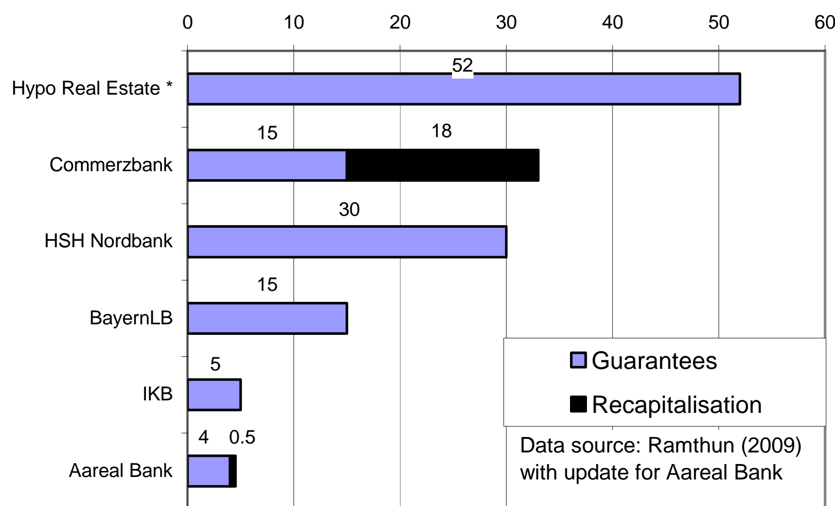

Figure 4: SoFFin disbursements (€ bn) as of February 2009

ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

By mid of February 2009 there are applications pending for SoFFin support from the Landesbanks of Bavaria, Baden-Wurttemberg, North Rhine-Westphalia and Hamburg / Schleswig-Holstein. The Volkswagenbank, a commercial bank subsidiary of the Volkswagen Group, also filed an application. In spite of these procedures the interbank markets are not yet recovering. The reluctance of banks to engage in money market transactions with each other goes along with ever increasing estimates about the amount of toxic assets owned by German banks. The latest forecasts estimate a total of 97 € billion of bad assets are still in the balance sheets of German banks. Further discussions on how to shore up financial markets are underway. A bad bank aimed at taking over non-performing assets was heavily discussed in January 2009, but finally rejected by political decision makers (FAZ 30.01.2009). With the deep recession clouding the business climate, even further political interferences into the capital markets appear most likely.

4. Aims of a future financial market policy

Deriving adequate future market policies requires a prior diagnosis of the recently misguided development of financial markets. The major symptom is a misallocation of financial resources, as revealed by the current wave of write-downs. To put it clearly: as the risk of failure is intrinsically tied to entrepreneurship it is not the event of non-performing bank assets that is of relevance, but the extent of this occurrence. The latter signifies that financial intermediaries have failed to perform in their core competency, which normally is a superior evaluation of risks. The misevaluated risks have been produced in the financial market of the United States with their exorbitant foreign debt (El-Shagi 2008: 19). Deficient financial market regulation in the United States and international regulatory arbitrage towards the US market has prepared the ground for the crisis (Winkler 2008: 2-4). Here, the innovations of financial intermediaries turned out to be destructive for the market system instead of the productive effect entrepreneurship should have (Baumol 1990: 893-921). Such misguided entrepreneurship of banks results from deficient incentive structures. The latter existed in spite of speed and scope of financial market reforms in the last decades. Thus, reforms lacked the right focus or direction in industrial countries. In the following it is argued that insufficient liability and transparency as well as undesirable concentration of financial intermediaries are the core challenges.

A deficient liability scheme for the bank management is the first core problem (Broll et al. 2008: 1350-51). Lacking liability results in higher risk-taking, as gambling is a profitable individual strategy in case losses are bailed out by third parties. Yet, this practice does not comply with the social risk preference. Deficient liability can be detected in management remuneration that is sharing profits but no losses. Even in case of bank management failures there is hardly

ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

a sanction, but rather a 'golden handshake'. Corporate governance mechanisms are thus not working efficiently yet (Rehm 2008: 307); this problem obviously exists both in market-based and bank-based financial systems. A more intense acceptance of risk by the top management itself is an aim of new corporate governance schemes. Another detriment to the principle of liability is a lack of sufficient bank equity to cover the taken risks. In general, high equity ratios will work as a buffer to adverse developments. Related to this, equity requirements of the Basel accord need to be adjusted, in order to increase banks' equity even in a boom. Currently, low default probabilities of bank assets in these periods result in low equity requirements. This is reversed in a recession, with the higher bank equity required resulting in lower bank lending and thus a pro-cyclical effect (Bofinger et al. 2008b: 170-1). Finally, unrealistic return on equity targets – as for example the 25 per cent put forward by the Deutsche Bank until 2007 – need to be revised. Achieving such profitability targets is in the long term only possible through competitive advantage for banks. Rather, high return on equity targets are often realised by high leverage; a risky and undesirable situation as the financial crisis showed (Hartmann-Wendels 2008: 708).

An increase in transparency is a second reform target. Transparency enables the functioning of the price mechanism, which is in the bottom line processing information (Hayek 1945: 519-30). Information can only be processed, if it is available to economic agents. Thus, transparency is a crucial factor. A multi-step securisation process is evidently not enhancing transparency. As explained, banks are currently struggling with the appraisal of their assets. If even banks – the best informed economic agents on the financial markets – face these problems, products appear to be too complex. A certain standardisation might be of advantage (Wehinger 2008: 29). Further, risk measures used by financial intermediaries are apparently deficient, as they did not incorporate the behavioural risks that are relevant to financial markets like herding effects (Broll et al 2008: 1350-1). Likewise, liquidity risks have been underestimated, as the refinancing problems of banks show. A proper functioning of rating agencies is also necessary for transparency, particularly for structured financial products. A part of the related problems are certainly associated to the methods and procedures used so far. A more fundamental reform is to unbundle consulting and rating activities because of the incorporated conflict of interests. Another issue is to tie the remuneration of rating agencies to the accuracy of their forecasts. By doing so, a short-termism of rating agencies can be prevented. This appears necessary, because the rational long-term target of a rating agency to build up reputation by adequate ratings has obviously become subordinate recently.

This brings us to the third reform challenge: reducing concentration. As a starting point one should keep in mind that financial markets will never be stable. They should even be the contrary: (financial) innovations always inherently have the risk of failure. This is an integrated part of the concept of a dynamic development in a competitive market process. Banks with non-viable concepts adapt or exit the market. If the latter raises a problem to the financial markets as

ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

a whole, banks become ‘Too-Big-to-Fail’ (Brewer and Jagtiani 2007). This is exactly the way the second wave of the global financial crisis arose. The collapse of Lehmann Brothers aggravated the crisis strongly, because the bank was ‘relevant to the system’ (Bofinger et al. 2008b: 122-3). If one single bank is relevant to the world financial markets, a lack of competition is evident. Here, a lower concentration would have resulted in diversification and stabilisation of the financial market. Unfortunately, corresponding views are currently not en vogue. Concentration in the banking industry is increasing in Europe and the United States (Schildbach: 2008: 2), a coincidence with the regions most affected by the financial crisis. In Germany, the financial crisis spurs on the concentration process, as the mentioned mergers of private and public banks show. These procedures are already questionable from a corporate point of view, because most Landesbanks and all big commercial banks already have a considerable size. Empirical studies do not prove that additional large scale economies can be realized by further growth of these banks (Bos and Kolari 2005). Additionally, gaining in size is apparently confused with socially desirable business models. Large banks already have substantial threats to the state (Funk 2009: 76) and there is hardly any reason to worsen this situation even more. Especially in financial markets economies of size have the striking opportunity cost of banks’ attempts to gamble for state intervention in case banks’ business policies fail.

Apart from these principles for future financial market reforms, the current rescue efforts for banks require further attention. Despite the extent and the speed of state support, interbank markets are not functioning yet. This is illustrated by the differences of insured to uninsured money market rates as shown in Figure 5. Whereas the European rescue packages achieved bringing the rampant spread in the third quarter of 2007 down to a level in line with the figures of the period from mid-2007 to mid-2008, it is still far above the long-term average. This is not due to missing liquidity, as the deposit facilities at the central bank are increasing sharply. Yet, distrust is still present among banks hampering interbank lending. It is to be feared that banks as insiders to the market have the best forecasts on outstanding write-downs. So a substantial part of the necessary support for banks may be ahead.

Forschungsberichte des Fachbereichs Wirtschaft der Fachhochschule Düsseldorf
Ausgabe 8 (2009)
ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
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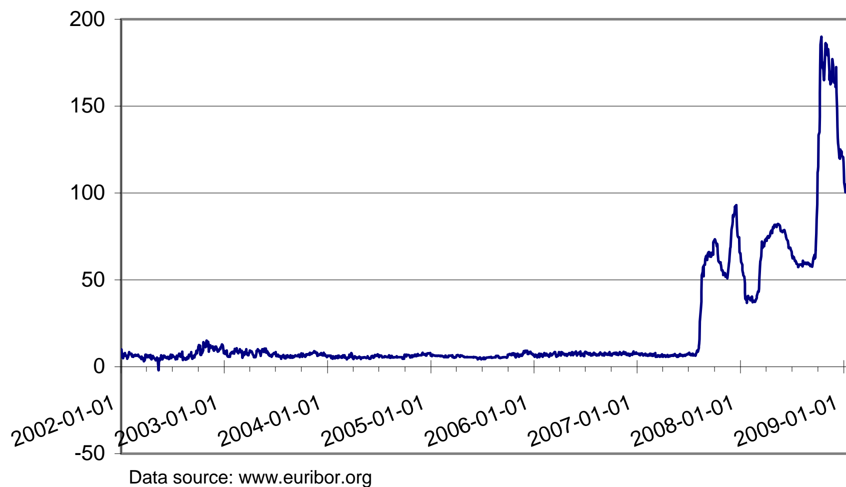

Figure 5: Spread Euribor to Eurepo 3-month in basis points

When analysing a financial rescue package, it is obvious that special short-term targets are relevant. Whether these are achieved can be evaluated on the basis of the incentive structures the support program sets. Fundamental considerations on the design of economic policy in the long run are secondary in this regard. Accordingly, transitional state guarantees for banks are justifiable, even if these represent soft budget constraints with adverse effects for managerial decisions like less diligence (Kornai 1986: 3-30). However, to put it metaphorically: one does not rescue someone who is drowning by giving him swimming lessons. Nevertheless, it is advisable to find solutions that do not undermine long-term targets. In this context one should also avoid any undesirable development that is hard to reverse. With these considerations in mind some shortcomings of the Germany rescue scheme can be detected.

First, the rescue package does not tackle the lack in transparency sufficiently yet, as evidenced by the persistent interbank spread shown in Figure 9. There are two explanations for this occurrence: either banks face problems with non-performing assets to unforeseen extent or the degree of banks' financial soundness is simply not appraisable. To obtain information about the real situation as soon as possible would be highly useful for the public. One might hope that official financial statements for the year 2008 will clear conditions up. There is certainly also some additional insight in the course of requests to the SoFFin, also currently not published by this institution yet. Means are simple, though. Just a special audit is missing that might be better based on the accounting principle of prudence. Such a specification valid for all banks is

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Ausgabe 8 (2009)
ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

strikingly easy to define by the legislator.

Second, the German rescue package neglects challenges of concentration in the banking industry. Landesbanks are merging on a large scale and an acquisition within the big commercial banks was supported by injecting capital into the Commerzbank. This development impacts competition intensity, is hard to reverse and thus unfavourable in the long-run. Competition is also distorted in the short term. This is illustrated by the case of Aareal Bank's request for approval of SoFFin support. The bank is financially healthy, but runs for SoFFin's shelter as did competitors in financial distress before. This decision aims at lowering the cost of capital. Consequently, the state becomes a surrogate for capital markets, not just in case of financial distress, but widely used. Evidently, the costs for SoFFin support are too low, a fancy way to paralyse the market mechanism. Here, the legal act suffers from a basic flaw, as it mentions 'fees in line with the market'. However, there currently is no market for such financial services and the defined yardstick misses accordingly. The resulting scope of discretion is apparently improperly used. Of course, increasing costs for capital supply and guarantees by the SoFFin should not be contradictory to the liquidity targets of banks. So, it is certainly not sensible to augment annual fees and payments. An equity investment or even nationalisation, as discussed fiercely, is also not necessary. Adequate future profit sharing suffices.

Third, the principle of liability requires some attention, as it is important not to outrange the original concept of the rescue package. The original legal basis of the SoFFin is clear in this perspective. Bank guarantees, by far the largest part of the rescue package, were to expire by the end of 2012. The legal act also envisages an exit of the state in case of re-capitalisations, yet without a timetable. This clearly has recourse to the reestablishment of the liability concept after a transitory period. To define a clear-cut end and limit of government support is of prime importance in order to avoid any adverse incentives to bank management that expected future bail-outs will have. Not surprisingly, the debate on adjustments of the rescue package began right after release of the act. The government withstood calls for a 'bad bank', taking over non-performing assets from the banks at a large scale. Yet, the original act was supplemented in February, 2009 (by the FMStErgG with a first draft released February 18th). Guarantees now can have a prolonged life-span of five years, compared to the three years of the original act. Whether this adjustment is right or wrong can hardly be evaluated with the current lack of information on banks' real situations. However, the peril is that floodgates have been opened for ongoing political support and interference in the financial markets. This is also illustrated by the now new option to nationalize banks, currently limited until mid of 2009. It is not the neglect of property rights that is remarkable, because the option to nationalize is only feasible in case of a bankruptcy threat, but the increasing direct economic power of the state. Finally, nationalisation can be seen as an act to prevent acquisitions of banks in financial distress by foreigners, yet with alarming allusions to protectionism.

ISSN: 1866-2722
URN: urn:nbn:de:hbz:due62-opus-5116
URL: http://fhdd.opus.hbz-nrw.de/volltexte/2009/511/

5. Conclusion

The German financial system underwent substantial change in the last decade. Many of its traditional characteristics like the close personal network between banks and non-financial corporations, the reliance on bank financing and the conservative accounting principles do not exist any more. The overall concept of these reforms was a more market-oriented approach. This unilateral adjustment assumed advantages of the Anglo-Saxon approach, based both on theoretical insight and empirical evidence, for example a higher productivity of the financial industry in the United States and the United Kingdom. Yet, due to the current financial crisis, this model has lost quite a lot of its appeal. While the superiority of the market mechanism is beyond theoretical doubt, some empirical results of comparative financial market studies remain to be reassessed. In fact, the key issue is to identify the preconditions for a proper functioning of financial markets. According to the German *Ordnungstheorie* (Leipold 1990), an adequate order or framework of the market mechanism has to be taken into account.

Thus, regulation of financial markets is a hot topic again. Rules need to be set that induce bank decisions that are based on long-term risk-return profiles of business activities. Regulation also needs to tackle the problems of systemic crisis and the related issue of banks that are too big to fail. However, regulation of financial markets is only viable in case of international harmonisation. Accordingly, an international rule system for financial markets is to be established (Siebert 2008). This may result in true convergence, as the direction of adaption needs to turn, because some regulatory deficits in the United States are at the bottom of the problems. One might argue that international policy coordination will be doomed due to national special interests. Those special interests are certainly a challenge, but the radical changes that are underway also draw a 'veil of ignorance' (Buchanan 1986) over the special interests of lobbies. Hence, the current situation offers an extraordinary opportunity for international regulatory consent.

For the German financial markets there are challenges ahead. Despite the scope of recent reforms an end of the process is not in sight. Current turmoil will only end after necessary regulations have been incorporated. Of prime importance will be to reverse the direct state influence that the rescue package involves. Concentration constitutes a particular risk for a market-oriented approach towards the banking industry. Sheer size will not help make banks function again, no matter if the public or the private banking sector is concerned. More creative business models for future financial services should be the starting point.

ISSN: 1866-2722
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Ausgabe 8 (2009)
ISSN: 1866-2722
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