



Universität Potsdam

Detlev Hummel (Ed.)

The Euro Financial Crisis

Impacts on Banking, Capital Markets, and Regulation

Universitätsverlag Potsdam

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Preamble

The workshop took place at the Griebnitzsee in Potsdam-Babelsberg in June 2012. Most of the topics were linked with the banking and financial crisis since 2007/2008 and the European sovereign debt crisis since 2010. They are closely connected to global developments. That is the reason why those topics are in the center of the current finance and banking research all over the world. It was likely to discuss on the one hand the reasons and the consequences of those crises and on the other hand possible reform processes with colleagues from different countries and currency zones, e. g. from USA, Russia and China.

On this occasion, I would like to extend my particular thanks to our academic guests and the representatives from the German credit economy, whose presentations were received with high interests from colleagues from Beijing, Moscow and St. Petersburg. The strategic assessment of Germany and Europe concerning currency, banking and finance topics are still highly appreciated.

We saw once again during our very lively, controversial and constructive workshop that the global financial markets are coalesced very closely. So, here is a high degree of responsibility for professors, scientists and political advisors to deal with such challenges. New solution approaches are demanded for the fast changes of financial and banking markets during the crises. In addition to that, there is a need to have consistent supervision and regulation standards to decimate the exaggerations and excesses on the international capital markets. The European community and the eurozone as an important part of the world financial market have to find new ways and solutions which could be an orientation for other parts of the world.

It is a pleasure for me to publish this small report of the international workshop, which just certainly contains an overview of the different contributions. The reader might get a short impression of those difficult and exciting presented topics and maybe this publication will motivate to continue the dialogue.

Prof. Dr. Detlev Hummel

Potsdam, January 2013

The European Financial Crisis, European Central Bank Policy, and the Deutsche Bundesbank

Dr. Albrecht Sommer

Deutsche Bundesbank Berlin

This summary was written by Dr. Rolf-Peter Mikolajczyk.

The presentation of Dr. Albrecht Sommer, head of the Office for Strategic Issues Berlin/Brandenburg branch of Deutsche Bundesbank, dealt with the Central Bank's monetary policy during and post European financial crisis.

In the first part of his presentation Dr. Sommer addressed in-depth the causes of the European debt crisis. At first, he pointed out the convergences of interest rates on government bonds issued by important EU-member states for the period 1998 to 2005. The development reversed its course post-financial crisis. Furthermore, the level of indebtedness of the European states as well as their differing economic growth was shown. An important cause was the freehanded finance policy of Greece and other southern European governments. Dr. Sommer focused in particular on the interdependence of growing national debt levels with increased spreads in the sovereign debt markets and the impact on economic growth as well as the banking system and the newly formed stability mechanism (EFSM) put in place to counter above problems.

Dr. Sommer continued by discussing the European Central Bank's tasks of monetary policy and crisis management resulting on one hand in the stabilization of the financial markets. On the other hand, he addressed the doubts of the markets concerning the effectiveness of the monetary policy in the long run. The European fiscal crisis and the stability measures taken by the European Central Bank had a contradictory impact on the finance markets and the systemically important commercial banks. There are differing opinions existing in the euro area concerning the purchase of government bonds of southern European nations by the European Central Bank. Ultimately, it must be assumed that there were no alternatives to execute certain emergency measures. Only the question remains how long it would take the European Central Bank to return to its intrinsic responsibilities for monetary policy in the tradition of the German Bundesbank.

Dr. Sommer presented empirical depictions of the development of the European Central Bank's finance instruments since the euro financial crisis respectively the collapse of Lehman-Bank. The long-term effects of the finance policy of the Central Bank, in particular the massive provision of liquidity for the bank- and finance markets remains to be seen. In any case, a certain calming of the markets was accomplished and time was gained in order to advance the integration of the political as well as the economic mat-

ters of the EU. It is a requirement that a number of new EU-institutions must be put in place and existing ones require reforms in order to follow up the monetary policy- and economic integration of the EU-nations with the political and fiscal policy integration.

At closing, Dr. Sommer summarized some important lessons learned for Central Bank's monetary policy from the European government debt crisis.

LBB and LBB Research During and After the Crisis

Dipl.-Ök. Michael Schubert
Landesbank Berlin

This summary was written by M. Sc. Tim Wazynski.

Mr. Schubert underlined that the euro financial crisis has a huge impact on the global economy. There are still some central problems, which have to be solved. One decisive factor is the financial disorder in Greece and if it comes to an end. Significant further reforms are necessary to improve the situation in Greece and also some other countries like Spain or Italy. There is still a potential aggravation of the debt crisis for euro area sovereigns.

The growing budget deficit during the crisis leads to ongoing refinancing problems of some eurozone countries. Mr. Schubert pointed out that government bonds are no longer risk-free. Some bonds of industrial nations are under pressure. One crucial issue is the government's conflict of interests because of acting as a market player and a regulator. In order to ease the national debt, they are pushing the interest rates lower. Furthermore, the central banks' monetary policy is changing to a policy of low interest rates, in order to provide liquidity and to counter a recession. Therefore, the euro financial crisis demonstrates that there is a strong dependency on the monetary policy of the central banks and the politics in the eurozone.

Mr. Schubert continued that the problems concerning the government bonds are highly affecting the corporate bond market, which is becoming more important. Investors are looking for different investment opportunities, which have to be safe. "AAA" rated corporate bonds have been less risky than government bonds since 2008/2009. The debt sustainability of companies is often better compare to the best-rated states. Nowadays the market capitalization of corporate bonds is higher than of government bonds, but corporates cannot replace government bonds in the short term at all.

In Mr. Schubert's opinion, the Euro will survive the current crisis. The governments refinancing volumes will reach its peak in 2012, but the outlook for the fragile economy remains poor. It is an act of strength to revitalize the fiscal pact and to support the economy on a long run.

The German Banking System – Types of Banks and Experience in the Crisis

Prof. Dr. Rudolf Faltermeier
TU Munich Business School

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1. The German banking system

The banking system in Germany is a universal banking system. This means that financial institutions in Germany are permitted to conduct all types of banking activities described in Section 1 of the German Banking Act. In addition to universal banks, there are also a number of special banks which mainly for historical reasons limit their activities to selected, single types of business. Among these are building societies/home loan savings banks and direct banks.¹

1.1 Three pillar structure

Universal banks in Germany can be divided into three main types of institutions: commercial banks, public-sector banks belonging to the savings bank sector, and cooperative banks. This division is commonly known in Germany as the three pillar structure, a term which expresses the strict separation of these groups.

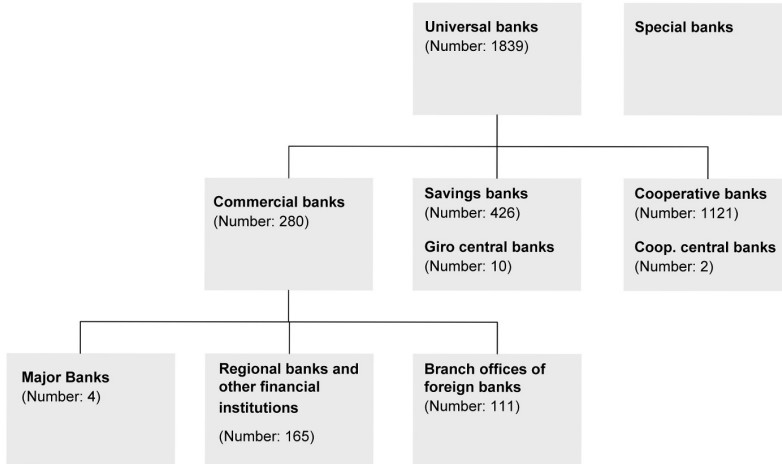
Commercial banks are part of the private sector, i.e. government entities do not generally hold stakes in them, and can be further sub-divided into large, nationwide (major) banks, regional banks and other financial institutions, including the branch offices of foreign banks. The savings bank sector includes savings banks and Landesbanks/giro (transfer and clearing) central banks. The institutions in this pillar are owned by local or regional government entities such as municipalities, states or special purpose associations. The cooperative bank sector comprises cooperative banks (e.g. Volksbanks and Raiffeisenbanks) and their two central banks, DZ-Bank and WGZ-Bank.² An overview of the structure of the German banking system is provided in Figure 1.

Other than their legal form and business goals, the principal difference in the types of universal banks is the number of legally independent institutions they have and the number of branch office locations. For example, commercial banks, which have no geographical limits on the areas they serve, have far fewer legally independent institutions than savings banks and cooperative banks which are limited to serving certain geographical areas. Commercial banks also have fewer branch offices and these are for the most part found in urban areas. Savings banks and cooperative banks, on the other hand, also have a strong presence in small towns and rural areas.

¹ See Hartmann-Wendels, T., Pfingsten, A., Weber, M. (2010), pp. 29 ff.

² See ebenda.

Figure 1: Structure of the German banking system and number of universal banks



Source: Bundesbank (2012), pg 24 ff., as at: July 30, 2012

In terms of total assets, the four major German commercial banks (Deutsche Bank AG, Commerzbank AG, UniCredit Bank AG and Deutsche Postbank AG) account for nearly 65%.³ This reflects the particular importance of the major banks. For this reason major banks in particular will be used in the following discussion for comparison purposes in addition to the savings banks and cooperative banks.

Not only the number of banks in each group is of interest but also the numbers of branch offices, employees, and customers should be looked at. An overview of this information can be seen in Figure 2.

Figure 2: Key figures for the bank groups

	Major Banks	Savings Banks	Cooperative Banks
Number	4	436	1.123
Branches	8,132	13,496	12,057
Employees	171,309	285,850	163,350
Customers	Approx. 26.8 m	Approx. 41.4 m	Approx. 26.0 m

Source: Deutsche Bundesbank, Bundesverband deutscher Banken, Deutscher Sparkassen- und Giroverband, Bundesverband der Deutschen Volksbanken und Raiffeisenbanken, as at: 2011

³ Hartmann-Wendels, T., Pfingsten, A., Weber, M. (2010), pp. 32 ff.

1.2 Business aims

For the major banks, as with all private-sector commercial banks, making money is the main purpose of business.⁴ In contrast, maximizing profits is not the highest priority for public-sector banks and cooperative banks.

According to Section 1 of the Bavarian Savings Banks Directive (SpkO), the savings banks have the following task: “Savings banks are independent commercial enterprises owned by municipal governments with the task (public mandate) of providing all elements of society and the economy, particularly the Mittelstand, and the public sector, with appropriate and sufficient financial and lending services within the area they serve, including the countryside, in accordance with the requirements of the market and competition, in order to strengthen competition.”⁵

Savings banks are thus committed by their municipal ownership to serving their local region. Profits that are not needed to further strengthen their capital bases are used for the benefit of society. Rather than fixating on financial figures, savings banks concentrate on benefiting the welfare of the people and businesses in the areas they serve. Accordingly, the business policy of the savings banks focuses on sustainable economic growth and social development in their regions. For this reason, the business of the savings banks revolves around transactions centred on the real economy instead of international financial markets.⁶

This commitment to the community does not mean however that savings banks must forgo making a profit.⁷ Making a profit is not the main goal but rather a means of fulfilling their public mandate.⁸

Cooperative banks are cooperative societies (i.e. owned by their members) which carry out all types of typical banking and related services.⁹ By cooperative society is meant a society in which the number of members is not fixed and which serves to promote the business or economic interests of its members through jointly-owned business operations.¹⁰

Because the number of members is not fixed, the assets of the registered society are not dependent on members joining or leaving it. The cooperative society is not obliged to automatically accept all applicants.¹¹ But membership in a cooperative bank does carry with it significant value. This can be seen in the fundamental principals that define a cooperative bank. In accordance with these, a cooperative bank is a self-help organisation that forgoes government or other kinds of support. Its members aim to overcome dis-

4 See Eim (2004), p. 17.

5 See SpkO (2007).

6 See DSGVO (2008).

7 See Jöhnk, T., Zimmermann, G. (2001), pp. 116 ff.

8 See Geiger, H. (1992), S. 35; Grundmann, R. (2001), pp. 75 ff.; Immenga, U., Rudo, J. (1997), pp. 21 ff.

9 See Dullenkopf, I. (2001), p. 5.

10 See GenG (2007).

11 See Dullenkopf, I. (2001), p. 5.

advantages through their own resources by voluntarily joining together, independently gathering funds and conducting jointly-owned business operations.¹²

Cooperative banks have however become less member-centric. This has come about due to the fact that cooperative banks are now permitted to establish business relations with non-members.¹³ Since the repeal of the identity principle for lending transactions, they no longer have to restrict themselves to business with members. From the bank’s viewpoint, this means that members and non-members have been put on equal footing. For this reason, cooperative banks now differ very little from other universal banks.¹⁴

Still, in accordance with the Cooperative Bank Act which applies to all German cooperative banks, they are required to promote the interests of their members. In contrast to commercial banks, maximizing profits is not their highest priority. But making a profit is a prerequisite for staying in business and surviving for the long-term. This is no less true for cooperative banks and they act accordingly.¹⁵

Figure 3 summarises the differences in the aims and ownership of the three different bank groups.

Figure 3: Business aims of banks

	Major Banks	Savings Banks	Cooperative Banks
Owners	Shareholders	Municipalities	Members
Aim	Profit Maximization	Profit Optimization + Promotion of region	Profit Optimization + Promotion of members

12 See Dullenkopf, I. (2001), pp. 6 ff.

13 See Eim, A. (2004), p. 27; Lenfers, G. (1994), pp. 74 ff.

14 See Bolsinger, H. (2001), p. 10.

15 See Theurl, T. (2002), p. 79.

2. The German economy

2.1 A land of small and medium-sized companies

Germany’s economy is characterised by a large number of small and medium-sized enterprises (SMEs) known collectively as the “Mittelstand”. These companies employ fewer than 500 workers each but are responsible for roughly three out of four jobs in Germany.

A great number of Mittelstand companies owe their success to specialising in the production of high-value niche products. Germany exports capital goods to all parts of the world and even smaller companies are world market leaders in many segments. This has enabled Germany to maintain its status as a highly industrialised nation in contrast to many other countries which have seen their industrial bases shrink. The automotive, electro technology, machine engineering and chemical industries make up the largest industrial segments in the country. Altogether the industrial sector accounts for around one-fourth of total economic output. However, the service sector, which includes advertising, finance, and customer services for example, is increasingly gaining in importance.¹⁶

Figure 4 highlights the importance of SME/Mittelstand companies in the economy by means of a comparison to large companies.

Figure 4: Comparison of SMEs and large companies

	Large companies	Medium sized companies	Small sized companies
Size			
- Employees	> 500	< 500	< 10
- Turnover	> € 50 Mio.	< € 50 Mio.	< € 1 Mio.
Number	0.01 Mio.	0.36 Mio.	3.31 Mio.
(Percentage)	(0.3 %)	(9.8 %)	(89.9 %)
Employees	24 %	58 %	18 %
Equity ratio	30.3 %	21.4 %	12.1 %

Small and medium-sized enterprises (SMEs)

Source: DSGV (2012)

16 See IW (2012).

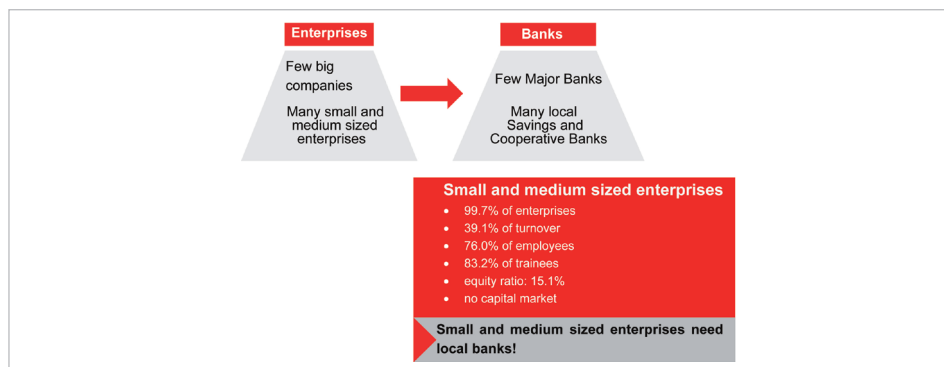
In addition to their enormous economic output, the SMEs are valued just as much for their importance to employment, training, and innovation. To this can be added their less apparent but even more important role as the country's economic stabiliser. Broad-based, diversified, and granular economic structures have proven to be more flexible and resistant to crises than "one-trick pony" economies which are dominated by one sector. This can be especially seen in turbulent times when the Mittelstand really reveals its robustness. Over the past few years both the real economy and the financial sphere have been rocked by the worst peacetime economic crisis in over 80 years. But during the whole time, the German Mittelstand was as steady as a rock, neither causing nor strengthening the crisis. Rather, it played a stabilising role in many areas and developed new strengths in the process.¹⁷

2.2 Banking system and economy fit together

Just as German companies can be divided into large companies and SMEs – as already discussed – the German banking system tends to be made up of a mix of smaller, mostly regional banks and larger institutions.

A glance at the number of companies or banks in the respective sectors shows that there are many small and medium-sized companies on one side while smaller savings banks and cooperative banks account for by far the largest share of financial institutions on the other side. The same balance can be seen in the number of employees in each of the sectors or in other figures. What should be remembered in regard to the German economy and the German banking system is that they go well with each other. Figure 5 illustrates this relationship.

Figure 5: The banking system must fit the economic structure



Source: DSGV (2012)

17 See DSGV (2012), pp. 12 ff.

3. Experience in the crisis

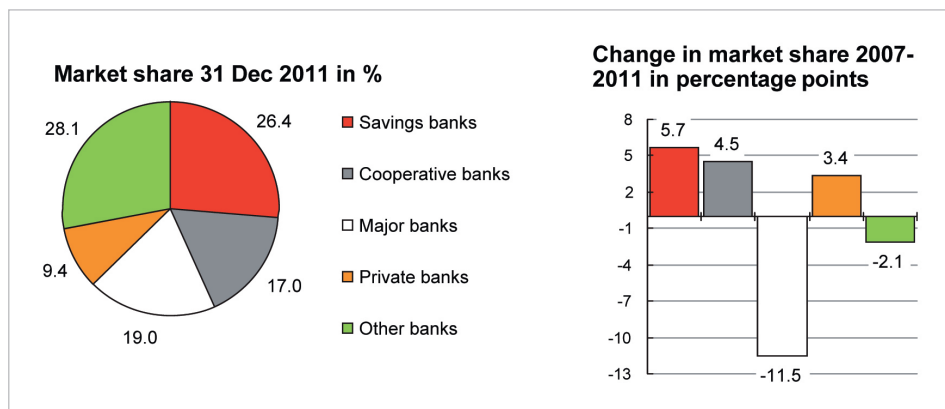
The German banking system with its three pillar structure has a stabilising effect in times of economic crisis. Using different indicators, the following will briefly illustrate this point.

3.1 Customer behaviour

Customer behaviour can be determined using several different indicators. One example is the market share of each banking group of lending to small and medium-sized enterprises and the changes in this over time.

At the end of 2011, the market share of local and regional financial institutions, that is, the savings and cooperative banks, was a good 43%. That of the major banks, on the other hand, was 19%. The change in these figures over the past five years also shows a clear trend. While the market share of savings banks has risen by 5.7 percentage points and that of cooperative banks by 4.5 percentage points, that of major banks has lost 11.5 percentage points since 2007 (Figure 6). This is a clear signal that confidence in banks rooted in their regions and dedicated to traditional banking business rises in times of crisis and underscores the correctness of a banking system that is divided into three sectors.

Figure 6: Market share of lending business with SMEs

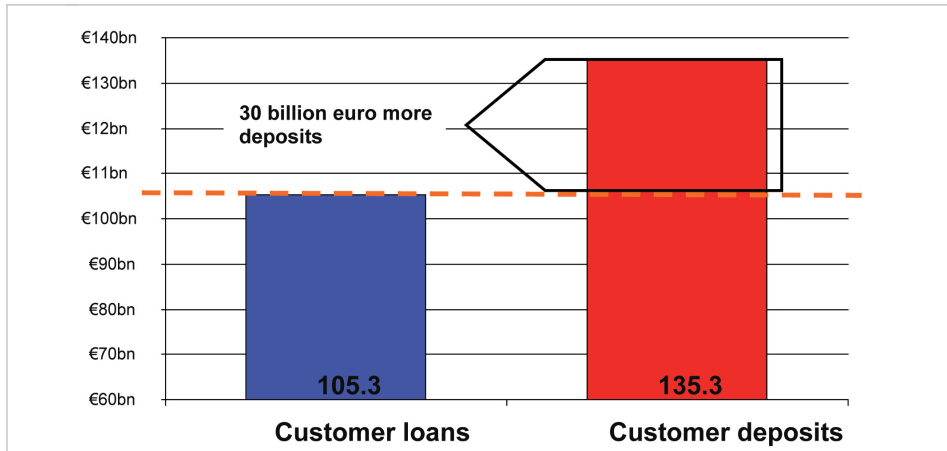


Source: Deutscher Sparkassen- und Giroverband, Sparkassenverband Bayern 2012

A comparison of total deposits to total loans also illustrates customers’ confidence in “smaller” financial institutions. Taking the Bavarian savings banks as an example, it can be seen that deposits exceed loans by approximately EUR30 billion (Figure 7). This shows that people feel their deposits are safe in savings banks. It also refutes the frequently mentioned fears of a “credit crunch”. In fact, just the opposite is true. Bavarian

savings banks have increased lending during the crisis and thus contributed to stimulating the economy.

Figure 7: Deposits vs. lending in Bavaria in 2011



Source: Deutscher Sparkassen- und Giroverband, Sparkassenverband Bayern

3.2 Risk situation

Even though the savings banks have increased lending during the crisis, the associated risks have fallen. This can be seen by a glance at net write downs on loans. Since the beginning of the 2000s, impairments at German savings banks have dropped sharply and are now around 0.

3.3 Profitability

Besides the risk situation, profitability figures during the financial crisis also indicate how the German banking system has proven itself. A look at profitability over the past ten years clearly shows the volatility in the profitability of major German banks. This is revealed by several different profitability metrics. Figure 9 shows net income before taxes, return on equity and operating income. For the major banks, these three figures show sharp spikes and big drops in profitability reflecting the booms and busts of the economy.

In contrast, the profitability of the savings banks and cooperative banks has been relatively steady. These two bank groups are far less susceptible to big swings in profitability. Rather, it is the steadiness of the profitability which stands out. Of course, this also means that there is no upside explosion in profitability in boom times. But if you recall the business aims of these institutions, that is exactly the way it should be.

Figure 8: Profitability over the past ten years



Source: Deutscher Sparkassen- und Giroverband, Sparkassenverband Bayern

4. Conclusion

The German banking system with its three pillar structure is a good fit for the business structure in Germany. Germany, as a land of small and medium-sized enterprises, also has numerous local banks whose size and business strategies are directed at supporting the Mittelstand. The economy benefits greatly from having a banking system and company structure that fit together well or is even made for each other.

This system has also proven itself in times of economic crisis. Savings banks and cooperative banks have proven to be stabilising factors in turbulent times. They increased lending while decreasing risks and posted steady earnings while doing so. Customers have not lost confidence in the savings banks and cooperative banks. The willingness to work together is the most important prerequisite for this.

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The Effect of Chinese Monetary Policy on Banking During the Global Financial Crisis

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List of Abbreviations

NPL	Non-Performing Loans
NIM	Net Interest Margin
PBC	People's Bank of China
RMB	Ren Min Bi
REL	Real Estate Loan
SMEs	Small and Medium Enterprises
YOY	Year over Year

1. Abstract

After the global financial crisis broke out in 2008, China implemented an extraordinary loosening monetary policy and active fiscal policy which promoted China's economy to recover firstly in the world, however, the inflation rate continued to rise at the same time. In order to prevent high inflation, China turned to a sound monetary policy with tight trend. Since banks are the main body in the transmission of Chinese monetary policy, and the proportion of state holding banks in the banking system is still the highest, the two rounds of monetary policies had made a great impact on banking. The paper includes four parts, the first part is the introduction to the main monetary policy tools in China; the second part focuses on the loosening monetary policy and its effect on banking; the third part is about the sound monetary policy with tight trend and its effect on banking; and the last part is conclusion.

2. Introduction to the main monetary policy tools in China

The monetary policy tools used by the People's Bank of China (PBC) mainly include reserve requirements, open market operations, interest rate policy, credit policy and window guidance, as well as real estate credit control.

2.1 Reserve requirements

In most western countries, the reserve requirements tool is rarely used. However, in China, it has been a frequently used and highly important tool in recent years. It has not only been used to change the aggregate credit and money supply, but also to adjust the credit structure through different reserve ratios. For instance, the required ratio on the small and medium financial institutions, rural financial institutions is lower than that on the major financial institutions, in order to support the SMEs and "three rural".¹

2.2 Open market operations

The feature of open market operations in China is that besides purchasing and selling government bonds and policy financial bonds, the PBC controls the size and frequency of central bank bill issuance. Central bank bills are mainly short-term bills issued by the PBC and sold to depository institutions so as to reduce base money; on the contrary, the

¹ "Three rural" refers to "agriculture, rural areas and farmers".

expiration of central bank bills means base money is increased.² Central bank bills were introduced in 2004 because the state bonds held by the PBC were not enough to realize sterilized intervention.

2.3 Interest rate policy

Since the bank rates in China are still guided by the PBC, the interest rate policy can be used as a monetary policy tool. It includes two categories, one is to adjust benchmark interest rates offered by the central bank, including re-loan rate, rediscount rate, and reserve balances rate; the other is to adjust the benchmark interest rates on financial institutions' deposits and loans and set the floating range.³ The interest rates offered by banks can only fluctuate within the floating range around the benchmark rates.

2.4 Credit policy and window guidance

Credit policy is made according to state macro-economic policy, industrial policy and area economic development policy, in order to direct the financial institutions' credit size and structure. Before 1998, the credit policy is carried out through credit ceiling. In 1998, credit ceiling was cancelled, and window guidance has been put into effect. The PBC utilize window guidance to direct banks to increase or reduce loans to different kinds of industries or corporations. Although window guidance is a kind of indirect control tool, it is effective because Chinese major financial institutions are all state-owned or state holding.

2.5 Real estate credit control

Real estate credit control is a kind of specific monetary policy tool used to regulate the real estate price growth rate by changing mortgage minimum down payment ratio. The down payment ratio on the second home or more is often higher than that of the first home in order to restrict the investment and speculative demand. Real estate credit control is not only used by the PBC, but also used by the state council when the real estate price growth rate is high.

² The maturity of most central bank bills is within 1 year, some of them are 3 years.

³ On June 8, 2012, the upper limit of the deposit rate floating range of banking financial institutions was adjusted to 1.1 times the benchmark interest rate, and the floor level of the floating range of lending rates was adjusted to 0.8 times the benchmark interest rate.

3. Loosening monetary policy and its effect on the banking

The global financial crisis has led to a significant decline in China exports, to stimulate domestic demand and promote economic growth, from September 2008 to December 2009, the PBC carried out a nominally “moderate” but actually extraordinary loosening monetary policy.

3.1 Loosening monetary policy measures

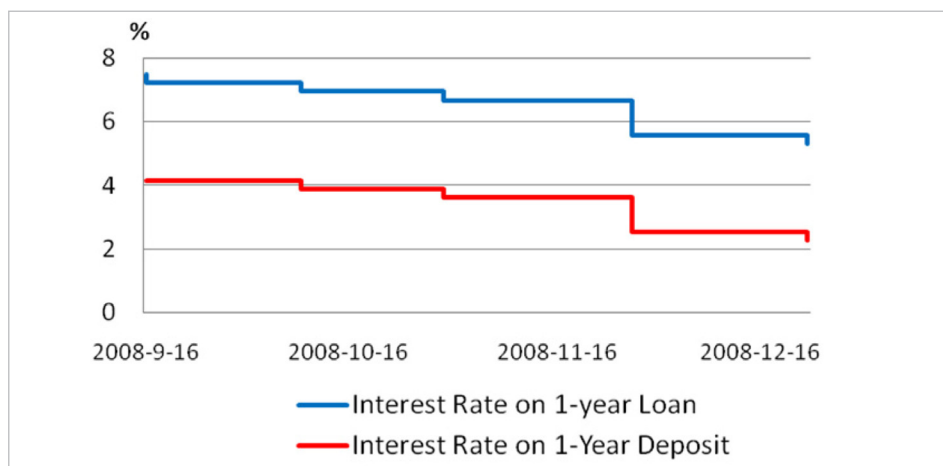
3.1.1 Reduced benchmark interest rates

Since September to the end of December 2008, the PBC had dropped the rate paid on requirement reserve and excess reserve from 1.89%, 0.99% to 1.62% and 0.72%, respectively. The re-loan rate for 1 year dropped from 4.68% to 3.33%; the rediscount rate dropped from 4.32% to 1.8%. In addition, the PBC had dropped the benchmark rate of financial institutions’ deposits and loans for 5 times. For example, benchmark rate of one-year deposits and loans dropped from 4.14%, 7.47% to 2.25% and 5.31%, respectively (See Fig. 1).

3.1.2 Reduced required reserve ratio

From September to December 2008, in order to release liquidity to banks so that they can make more loans to support economic growth, the required reserve ratio had been reduced for 4 times, the ratio for major depository institutions dropped from 17.5% to 15.5%, while, the ratio for medium and small institutions dropped from 17.5% to 13.5%.

Figure 1: Benchmark interest rate in China



3.1.3 Cut down issuance of central bank bill

Before the first half year of 2008, in order to fight and prevent inflation, the PBC had issued large amounts of central bank bills to reduce base money. However, since July 2008, the PBC cut down the issuance scale and frequency of central bank bill gradually to keep adequate liquidity in banking system. For example, the balance of central bank bills dropped from 4.59 trillion in September 2008 to 3.99 trillion in September 2009.

3.1.4 Window Guidance

In January 2008, credit ceiling was used again to prevent inflation. While, in November 2008, it was cancelled again, commercial banks have been allowed to expand credit scale within a reasonable extent. At the same time, the PBC tried to use window guidance to adjust and optimize credit structure, for example, in addition to giving priority support to the “three rural”, SME, it encouraged banks to make supporting loans to major infrastructure projects.

3.1.5 Loosened real estate credit control

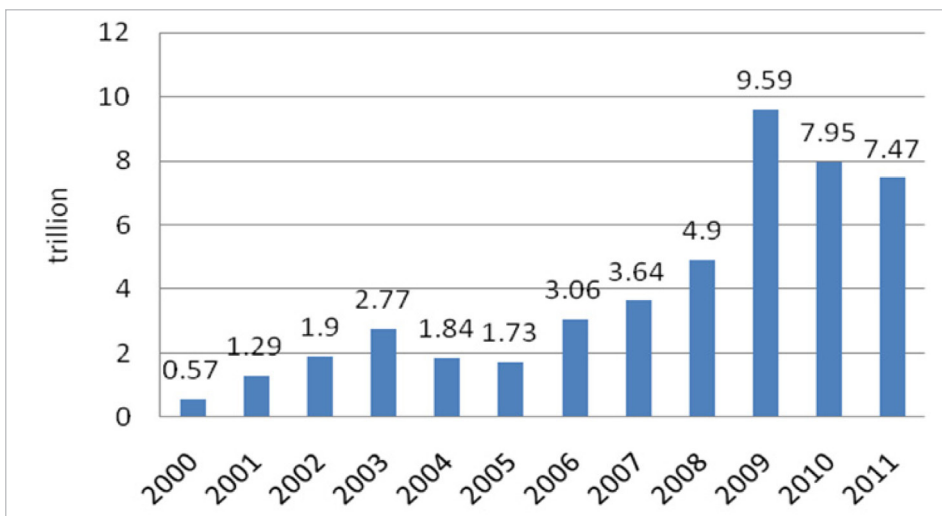
In order to increase domestic demand, from October 2008, for the first normal and self-habitation home, the down payment ratio was lowered from 30 % to 20 %, and the lowest commercial mortgage rate was decreased to 0.7 times the benchmark rate. For other types of mortgage, the credit standards should be raised appropriately.

3.2 The effect of the expansionary monetary policy on the banking

3.2.1 Rapid expansion of the banking credit scale

Affected by Chinese government’s 4 trillion economic stimulus plan and the expansionary monetary policy the banking credit requirements were abnormal easing, and the credit scale increased rapidly in 2009 with 9.59 trillion yuan RMB loan increment, which was 4.69 trillion yuan more than the previous year (see Fig. 2). The YOY growth rate of RMB loan balance rose rapidly from 15.9 % at the end of 2008 to 31.7 % at the end of 2009. Both the size and growth rate of loan are the highest since 2000.

Figure 2: Yearly loan increment of banking

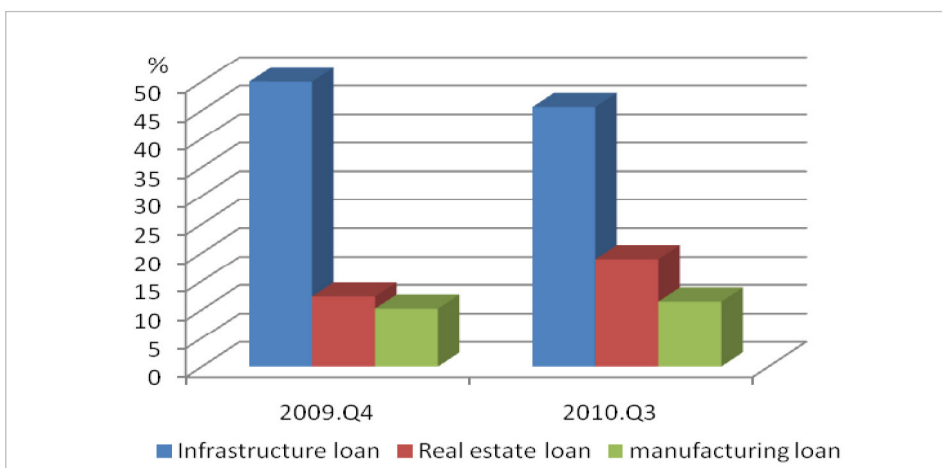


Source: www.pbc.gov.cn

3.2.2 Analysis on the structure of the huge amount of loans

As far as the term structure of the loan increment is concerned, medium and long term loans increased more than the short term loans. In 2009 and 2010, the medium and long-term loans accounted for 70% and 83% of the loan increment. In terms of the industry structure of the medium and long term loans, these loans mainly flowed to infrastructure, real estate, as well as manufacturing (see Fig. 3).

Figure 3: Industry structure of the medium and long-term loan increment



Source: Monetary Policy Report of the PBC (2009, 2010, Q3), <http://www.pbc.gov.cn/>

In the infrastructure loans, the proportion of the municipal infrastructure loans which rely on the local government financing platform is high. Local government financing platform refers to those “City Construction Investment Company” or some companies like that established by the local government for the purpose of local infrastructure and guaranteed by local governments’ revenue, and they raise funds mainly from commercial banks. In 2009, over 3 trillion yuan loans were made to various types of local government financing platforms which accounted for 34.5 % of the total loan increment. Additionally, real estate loan (REL) also increased quickly. The incremental REL accounted for 21.9 %, 25.4 % of the total incremental loans in 2009 and 2010 respectively, especially in 2009, the YOY growth of REL balance reached a record of 38.1 % (Table 1).

Table 1: Real estate loan in China

Unit: trillion Yuan

	REL increment(1)	Total loan increment(2)	(1)/(2)	YOY growth of REL balance
2009	2.00	9.59	21.9 %	38.1 %
2010	2.02	7.95	25.4 %	27.5 %

Source: The statistical report of the loan direction of financial institutions (2009/2010), <http://www.pbc.gov.cn/>

3.2.3 The credit risk increases sharply

Along with the surge in credit scale, the credit risk in the banking industry increases sharply, especially the credit risk of local government financing platform and real estate, which caused widespread concern. The reasons for the high credit risk of local government financing platform are as follows: first, the commitment letter of local government repayment presented to commercial banks does not belong to a legally binding guarantee in the security law. Second, the investment projects are mostly public projects with long payoff period and low return, when the huge amount of financing platform loans exceeds the local governments’ ability to repay in the future, a large number of NPL will appear.

The risk of real estate loans results from the real estate development loans firstly. As the real estate industry is a capital-intensive industry, and the leverage ratio is usually high, once the real estate bubble burst, the real estate companies’ cash flow will soon deplete, and the risk will be transmitted to the banking rapidly. Second, the risk results from the residential mortgage loans. Presently, the personal credit system in China is not sound, and the commercial banks have not formed a scientific and complete assessment system of mortgage risk. During the period of expansionary monetary policy, the commercial banks usually tend to degrade the assessment criteria for the borrowers and loosen lending scrutiny. From the beginning of 2010, Chinese government has implemented a series of strict measures to control the real estate bubble. If the real estate price decline in the future, the mortgage risk will increase significantly. Due to the slow pace of securitization of mortgage, the mortgage risk is highly concentrated in the banking system.

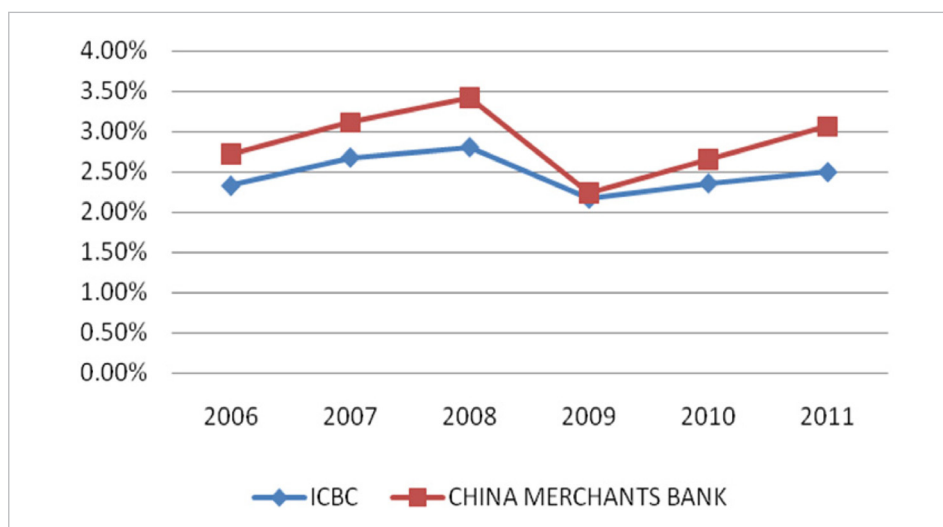
3.2.4 The liquidity in banks decreased

Due to huge amount of loans, from the end of 2008 to the end of 2010, the liquidity ratio of the banking financial institutions fell from 50.07% to 43.7%, and the excess reserve ratio fell from 5.6% to 3.2%, which formed a sharp contrast with the U.S. banks which holding high excess reserve at the same time.

3.2.5 The net interest margin and profit growth rate reduced

The loosening monetary policy led to the reduction in the net interest margin (NIM) of commercial banks. For example, from 2008 to 2009, the NIM of Industrial and Commercial Bank of China (ICBC) fell from 2.8% to 2.16%, and the NIM of China Merchants Bank fell from 3.42% to 2.23% (see Fig. 4). Since net interest income accounts for over 60% of the banking total income, the YOY profit growth rate of the banking fell from 30.6% to 14.6%.

Figure 4: Net interest margin of ICBC and China Merchants Bank (2006–2011)



Source: Annual reports of ICBC and China Merchants Bank (2006–2011)

4. Sound monetary policy with tight trend and its effect on banking

The loosening monetary policy resulted in rapid growth of loans and money supply. In addition, the main western countries implemented a quantitative easing monetary policy (QE), which led to global surplus liquidity thus a large number of international capitals flew to China, which aggravated the excess money supply. Faced with continuously rising inflation and real estate bubble, the PBC began to tighten the monetary policy from the beginning of 2010. In December 2010, Chinese government clearly announced to implement a “sound monetary policy”.

4.1 Main measures of the sound monetary policy with tight trend

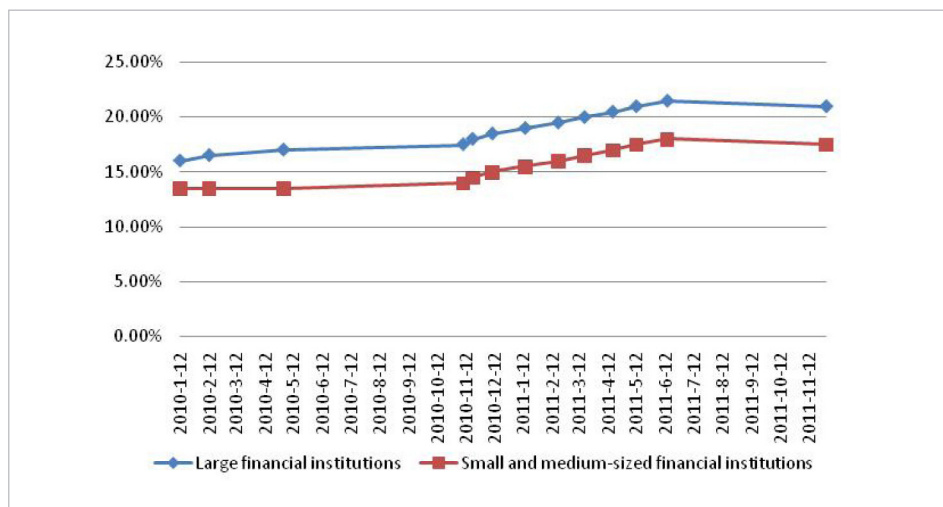
In the first three quarters of 2011, the primary goal of the sound monetary policy was to maintain price stability. After October, since the European sovereign debt crisis continuously spread, and Chinese economy growth has been slowing down, along with gradual decline of CPI, the monetary policy became loosening to a certain extent.

4.1.1 Raised required reserve ratio and introduced differential dynamic adjustment of required reserve ratio

From January 2010 to June 2011, the PBC had raised required reserve ratio for 12 times. The ratio for large financial institutions was raised from 15.5% to 21.5%, the highest record in history; for small and medium financial institutions, the ratio was raised from 13.5% to 18% (see Fig. 5).

In addition, in 2011 the PBC introduced differential dynamic adjustment of required reserve ratio tool which is an innovation of policy tool. It aims at guiding the financial institutions to keep a moderate credit growth and optimize the credit structure through countercyclical regulation. It mainly concerns the following factors: first, the deviation degree between the banking credit scale and economic growth as well as price index; second, the implementation effect of credit policy; third, indications such as a single financial institution's influence degree to the total deviation, its systematic importance and soundness. If the loans made by a financial institution has a significant impact on the total deviation, or the institution has a high degree of systematic importance, and poor soundness, its required reserve ratio will be higher than the general standard, and if the institution achieves the requirements of relevant indicators after credit adjustments, the ratio will be lowered to the general level.

Figure 5: China's Required Reserve Ratio (2010.1–2011.12)



Source: <http://www.pbc.gov.cn/>

4.1.2 Conducting open market operations flexibly

In the first three quarters of 2011, the PBC mainly issued central bank bills and conducted short-term repurchase operations to reduce the liquidity in the banking system. In the fourth quarter, the PBC reduced the issuance scale and frequency of central bank bills according to the changes of economic situation and liquidity in the banking system.

4.1.3 Raised the benchmark rates on deposits and loans

After the raise of benchmark rates on deposits and loans for twice in 2010, in the first half of 2011, the PBC had raised the benchmark rates successively for three times. The rate on 1-year deposit was raised from 2.25% to 3.5%, and the rate on 1-year loan was raised from 5.31% to 6.56% respectively. In the fourth quarter of 2011, the benchmark rate remained stable.

4.1.4 Strengthen window guidance and credit policy

The PBC has guided the banking to keep the pace of lending reasonably, optimize the credit structure, and guard against credit risk, as well as support the real economy. For example, it encouraged banks to further strengthen credit support to the key fields, such as “three rural”, SMEs, livelihood projects especially housing project for low-income urban residents, energy-saving and mission-reduction, strategic and emerging industries, cultural industries. At the same time, the PBC required banks to strengthen the management of loans made to local governments financing platform and strictly control loans to high energy consumption, high emission and overcapacity industries.

4.1.5 Strengthen real estate credit control

In order to control the rapid expansion of the real estate bubble, the State Council has issued a series of ever tougher regulation files, and the down payment ratio of the second or more home has been raised to 60% gradually, the mortgage rate was raised to 1.1 times the benchmark rate, and the mortgage for the third home has been suspended.

4.2 The effect of sound monetary policy with tight trend on banking

4.2.1 Liquidity tightening led to a rise in financing cost

During the first half of 2011, the liquidity was lacking in the banking system especially for the small and medium-sized banks. On one hand, affected by the quantitative tools, commercial banks' excess reserve ratio continued to decline; on the other hand, although the nominal rates

Deposits had increased for several times, the inflation rate continued to rise quickly, which led to the negative real rate even lower. When CPI reached the peak of 6.5% in June, the nominal rate on 1-year deposit was only 3.25%. Continuous negative real rate led to increasing outflow of saving deposits and a sharp slowdown in growth.

The condition of tightening liquidity in banking system gave rise to a sharply rise in inter-bank offering rates. In June 2011, the Inter-bank weighted average rate of 7-day reached a peak of 5.95%. Since major banks have more funds than the medium and small-sized banks, the former are usually lending banks, seldom affected by the high rate; while the latter are borrowing banks, so they were encountered with higher financing cost. Since the third quarter, due to moderately easing of monetary policy, the liquidity condition became better.

4.2.2 The credit growth rate fell smoothly and credit structure bettered

Due to the sound monetary policy with tight trend, the credit growth of banking began to slow down. In 2011, the RMB loan increment was 7.47 trillion yuan; at the end of 2011, the RMB loan balance was 54.8 trillion yuan, with the YOY growth rate dropped to 15.8%. Along with the credit growth fall, the credit structure has also been bettered. First, the overall growth rate of REL has fallen. At the end of 2011, the YOY growth of REL balance dropped to 13.9%. However, loans of housing project for low-income urban residents increased rapidly, with a YOY growth rate of 66.2%.⁴ Second, the proportion of loans made to the "three rural" and SMEs has increased. By the end of 2011, the banking financial institutions' agriculture loan balance accounted for 25.7% of the total loan balance, the YOY growth was 24.9%, about 9% higher than the average loan growth; the SMEs balance accounted for 19.6%, and the YOY growth was 25.8%, about 10% higher than the average loan growth.⁵ Third, credit support to the culture, energy industry and remote

⁴ Source: Annual Report of China Banking Regulatory Commission (2011), <http://www.cbrc.gov.cn>.

⁵ Ibid.

border district has increased. Fourth, the term structure of loans has been improved. The growth of short-term loans was higher than that of medium and long-term loans. By the end of 2011, banks' short-term loan balance reached 21.7 trillion Yuan, with YOY growth of 21.8%; the long-term loan balance was 33.4 trillion Yuan, with YOY growth of 11.8%.

4.2.3 The effect on the credit risk and asset quality of banking

The sound monetary policy helps to improve the overall quality of credit assets and reduce credit risk. First, given the reduction of loanable funds in the banking, the risk prevention awareness has been enhanced, and loans are examined more carefully, along with an increase in lending interest rates and standards, which is helpful to reduce NPL. Second, the optimization of the credit term structure helps to control the credit risk. However, because the interest rates on loans to the SMEs increased, the financing cost for SMEs has risen. Since the European debt crisis is becoming worsen and the economic growth is slowing down, the profit of the SMEs decreased and their solvency has deteriorated, which led to the increase of credit risk, especially for the small and medium-sized banks that mainly make loans to the SMEs.

4.2.4 The NIM and profit growth rate continued to increase rapidly

Although the tightening monetary policy restrained the growth of credit scale, the bargaining power of the commercial banks as a whole has been improved as the loan resources became relatively scarce. Banks tend to make more loans to the SMEs with high demand for funds, because some of them have the ability to accept a higher premium, floating upward from 20% to 100% of the benchmark rate. From 2009 to the first three quarters of 2011, the proportion of loans applying to up-floating rate increased significantly from 36.55% to 67.19% (See Table 2), and the weighted average interest rate on loans rose from 5.25% at the end of 2009 to 8.01% in September 2011.⁶ Since the deposit rate ceiling is controlled by the PBC, the up floating of loan rates led to the increase of NIM. In 2011, the average NIM of 16 listed banks was 2.67%.⁷ The increase of NIM made up for reduced profits resulted from restrain of credit scale. The after-tax profit of the banking was 1.25 trillion yuan, with a YOY growth of 39.3%.⁸

Table 2: The ratio of different interest rates on banking loans (%)

	Down floating	Benchmark rate	Up floating
2009-12-01	33.19	30.26	36.55
2011-09-01	6.96	25.86	67.19

Source: Monetary Policy Report of the PBC (2009: Q4, 2011: Q3), <http://www.pbc.gov.cn/>

⁶ Source: Monetary Policy Report of the PBC (2009: Q4, 2011: Q3), <http://www.pbc.gov.cn/>.

⁷ Tang Yawen. Analysis on the annual and the first quarter report of listed banks, the Research Report of the Northeast Securities Company, May 2, 2012.

⁸ Source: Annual Report of China Banking Regulatory Commission (2011).

5. Conclusion

To fight the global financial crisis, China implemented an extraordinary loosening monetary policy to stimulate economic growth. After that, a sound with tight trend monetary policy was carried out to control inflation. The two rounds of monetary policy had different effects on the credit size and structure, credit risk, liquidity and profit of the banking.

The expansionary monetary policy gave impetus to huge amount of loans, which mainly made to infrastructures, real estate, and manufacturing industry. Therefore, the medium and long-term credit risk has increased dramatically, especially the credit risk from real estate and local government financing platform. At the same time, the liquidity in the banking system was lowered; the NIM and profit growth rate decreased accordingly. The sound monetary policy with tight trend not only pulled the credit growth rate back to normal, but prompted the optimization of credit structure gradually. It also helps the banking industry to control credit risk in general, but the credit risk of SMEs has increased to some extent. The liquidity in the banking system became tight, especially for the small and medium-sized banks, thus their financing cost increased a lot. The NIM in banking rose quickly, which is an important reason to promote the high profit growth rate.

From the fourth quarter of 2011, the European debt crisis has become worsen, therefore, Chinese export and economy growth began to drop, and the PBC has to carry out loosening monetary policy once again. To minimize the negative effect of monetary policy as little as possible, the central bank and commercial banks need focus on the following issues.

From the central bank level, first, it should uphold the principle of macro-prudential management, and grasp a reasonable intensity of an expansionary monetary policy as well as the exit time, in order to prevent the size of banking loans increase excessively. Second, comprehensively make use of traditional monetary policy tools and innovative tools such as differential dynamic adjustment of required reserve ratio. From the banking industry level, first, they should adhere to strict and prudent lending principles, continuing to strengthen credit risk management. Second, China's banks must accelerate the transformation of the profit-making model, and improve the proportion of non-interest income continuously. China's deposit and lending rates have not become market rates thoroughly. The commercial banks' net interest margin is usually 2.5–3%, much higher than that of the commercial banks in western countries which is less than 1%. With the deepening of market-oriented interest rate reform, competition of interest rate among commercial banks is becoming more intense, therefore, expansionary monetary policy will reduce NIM of the commercial banks obviously, and tightening monetary policy may not help increase NIM significantly. Commercial banks should develop new types of business actively to broaden the sources of income, getting rid of excessive dependence on NIM gradually, thus reduce the adverse effect of monetary policy on their profitability.

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Basel III and Its Implementation in China's Banking Industry

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1. Introduction

The main purpose of Basel III is to improve banks' capability in shielding financial shocks and economic fluctuations, and also to raise the level of risk management and bank governance, and to enhance the transparency of the banking industry and disclosure requirements. As to the reform subjects, it's focus lies on the stability of individual bank on a micro level and bank's systemic risk and procyclicality which would amplify the risk on a macro level. The purpose of this paper is to analyze the impact of the Basel III Accord on China's banking Industry and put forward several relative suggestions based on practical situation.

2. Analysis of implementation of the Basel III in China

China has issued a series of policies, regulations and drafts since Basel III proposed, in order to implement the outcomes of international financial regulatory reform, adjust the domestic regulatory policies, make transitional arrangements and finally connect to the new regulations. At present, the actual situations of China's banking industry are as below.

2.1 Implementation of capital adequacy rules

The China Banking Regulatory Commission (CBRC) released a consultation draft of new measures on capital management for banks on August 15, 2011. The new approach was implemented on January 1, 2012.

The draft's "transitional arrangement" for capital adequacy ratio is as below:

- (1) In principle, Systemically important commercial banks should satisfy the following conditions by the end of 2013: a) Core Tier 1 Capital Adequacy Ratio: not less than 8.5%; b) Tier 1 Capital Adequacy Ratio: not less than 9.5%; c) Capital Adequacy Ratio: not less than 11.5%. With approval of the CBRC, banks can meet the standards by the end of 2015.
- (2) In principle, other commercial banks should satisfy the following conditions by the end of 2016: a) Core Tier 1 Capital Adequacy Ratio: not less than 7.5%; b) Tier 1 Capital Adequacy Ratio: not less than 8.5%; c) Capital Adequacy Ratio: not less than 10.5%. With approval of the CBRC, banks can meet the standards by the end of 2018.

Table 1: The Levels of Capital Adequacy Ratio of China's Five Systemically Important Banks

Unit: million Yuan

Bank	Bank of China			Agricultural Bank of China		
	06/30/2011	12/31/2010	12/31/2009	06/30/2011	12/31/2010	12/31/2009
Net Capital	848,189	740,704	575,024	716,782	624,124	440,349
Net Core Capital	655,968	593,787	468,231	—	—	—
Risk-weighted Assets	6,549,927	5,887,170	5,163,848	6,018,954	5,383,694	4,373,006
Capital Adequacy Ratio	12.95 %	12.58 %	11.14 %	11.91 %	11.59 %	10.07 %
Core Capital Adequacy Ratio	10.01 %	10.09 %	9.07 %	9.36 %	9.75 %	7.74 %
Bank	Industrial and Commercial Bank of China			China Construction Bank		
	06/30/2011	12/31/2010	12/31/2009	06/30/2011	12/31/2010	12/31/2009
Net Capital	999,280	872,373	731,956	823,355	762,449	608,233
Net Core Capital	795,613	709,193	586,431	—	—	—
Risk-weighted Assets	8,105,103	7,111,357	5,921,330	6,579,846	6,015,329	5,197,545
Capital Adequacy Ratio	12.33 %	12.27 %	12.36 %	12.51 %	12.68 %	11.70 %
Core Capital Adequacy Ratio	9.82 %	9.97 %	9.90 %	10.42 %	10.40 %	9.31 %
Bank	Bank of Communications					
	06/30/2011	12/31/2010	12/31/2009			
Net Capital	320,723	298,553	226,433			
Net Core Capital	248,271	227,296	154,489			
Risk-weighted Assets	2,629,009	2,416,255	1,887,022			
Capital Adequacy Ratio	12.20 %	12.36 %	12.00 %			
Core Capital Adequacy Ratio	9.41 %	9.37 %	8.15 %			

Sources: The banks' annual reports in 2010 and semi-annual reports in 2011

- (3) Rural cooperative banks and rural banks should satisfy the following conditions by the end of 2018: a) Core Tier 1 Capital Adequacy Ratio: not less than 7.5 %; b) Tier 1 Capital Adequacy Ratio: not less than 8.5 %; c) Capital Adequacy Ratio: not less than 10.5 %.

In order to analyze and get conclusions about the situations of implementation of capital adequacy rules, data from 2010 annual reports and 2011 semi-annual reports of China's banks is collected and organized. As of June 30, 2011, the levels of capital adequacy ratio of China's five systemically important banks (i.e., Bank of China, Agricultural Bank of China, Industrial and Commercial Bank of China, China Construction Bank and Bank of Communications) are listed in Table 1.

Similarly, the levels of capital adequacy ratio of four more representative commercial banks (i.e., Shanghai Pudong Development Bank, Huaxia Bank, Everbright Bank and Minsheng Bank) are listed in Table 2.

Table 2: The Levels of Capital Adequacy Ratio of China's Four Representative Commercial Banks
Unit: million Yuan

Bank	Shanghai Pudong Development Bank			Huaxia Bank		
	06/30/2011	12/31/2010	12/31/2009	06/30/2011	12/31/2010	12/31/2009
Net Capital	164,111	153,846	97,580	798,860	549,040	440,690
Net Core Capital	130,655	119,823	65,184	587,740	344,800	295,530
Risk-weighted Assets	1,424,833	1,278,361	943,705	5,976,810	5,187,220	4,318,690
Capital Adequacy Ratio	11.50 %	12.02 %	10.34 %	13.32 %	10.58 %	10.20 %
Core Capital Adequacy Ratio	9.16 %	9.37 %	6.90 %	9.80 %	6.65 %	6.84 %
Bank	Everbright Bank			Minsheng Bank		
	06/30/2011	12/31/2010	12/31/2009	06/30/2011	12/31/2010	12/31/2009
Net Capital	114,708	103,312	70,512	159,920	133,772	107,656
Net Core Capital	86,743	77,638	47,709	115,675	103,488	88,756
Risk-weighted Assets	1,055,109	932,933	676,284	1,490,984	1,280,847	993,773
Capital Adequacy Ratio	10.82	11.02	10.39	10.73	10.44	10.83
Core Capital Adequacy Ratio	8.06	8.15	6.84	7.75	8.07	8.92

Sources: The banks' semi-annual reports in 2011

Table 2 shows that the core capital adequacy ratios of these four representative banks are all above 7.5% and capital adequacy ratios are all above 10.5%. The four representative banks' capital adequacy ratios have all met the requirements of Basel III and also CBRC's regulations. Although Huaxia Bank, Everbright Bank, Minsheng Bank had not met the requirements until last two years, it's likely that these banks will keep the condition in the future based on the trend of data development.

Taken together, China's banking industry has already reached the standards of capital adequacy proposed by Basel III.

2.2 Implementation of leverage ratio rules

CBRC issued the *Rules for the Leverage Ratio Management of Commercial Banks* (Draft) on May 20, 2011. The new Rules set forth that leverage ratio refers to the ratio of eligible tier-1 capital held by a commercial bank to its adjusted balance on and off balance sheet.¹ The Rules are in line with Basel Committee guidelines, except the minimum leverage ratio requirement, which is set at 4%. This is 1 percentage point above the Basel Committee proposal. Besides, the Rules have set forth the transitional arrangements. Systemically important banks need to meet the standards by the end of 2012 and the deadline for non-SIBs is end-2016. During the transitional period, as for commercial banks whose leverage ratio is lower than the minimum supervisory requirement, the Rules make it clear that the CBRC can take corrective actions, banks need to make plan and report to CBRC.

Since China's banks have been engaged in low-leverage business for a long time, the leverage ratios have already attained international standards. In 2010, the Basel Committee conducted a quantitative estimation, the result showed that the average leverage ratio of China's banks was 4.6%, higher than the standard in the Rules and Basel III.

2.3 Implementation of liquidity management rules

The CBRC issued the *Rules Governing Liquidity Risk Management of Commercial Banks* (Tentative) for public consultation on October 12, 2011. The Rules have been effective since January 1, 2012. All the domestic and foreign commercial banks registered inside China will be subject to the Rules. CBRC will guide banks to establish a sound liquidity risk management system in accordance with the Rules, so that banks can timely iden-

¹ The Rules also set forth that tier-1 capital and tier-1 capital deductions refer to the tier-1 capital and tier-1 capital deductions used to calculate capital adequacy ratio as per appropriate CBRC regulations, and the adjusted balance on and off balance sheet refers to the adjusted balance on balance sheet less tier-1 capital deductions and then plus the sum of adjusted balances of off-balance-sheet items.

tify, prudentially assess, monitor, control liquidity risks and ensure the liquidity needs can be met at a reasonable cost.

The Rules point out that regulatory liquidity indicators incorporate deposit-to-loan ratio, liquidity ratio, liquidity coverage ratio and net stable funding ratio. Commercial banks should meet the indicators requirement. Liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) mentioned in Basel III were introduced into the Rules, both of them shall be not less than 100 % for banks. Loan-to-deposit ratio (LDR) and liquidity ratio (LR) are two new indicators added in the Rules by CBRC. Loan-to-deposit ratio is the ratio of a bank's loans to its deposits ($LDR = \frac{\text{amount of loans}}{\text{amount of deposits}} \cdot 100\%$), LDR should be no higher than 75 % for commercial banks. Liquidity ratio is the ratio of a bank's liquid assets to its liquid debts ($LR = \frac{\text{amount of liquid assets}}{\text{amount of liquid debts}} \cdot 100\%$), LR should be not less than 25 %.

As of June 30, 2011, the liquidity indicators of the five systemically important banks are listed in Table 3.

Table 3: Liquidity Indicators of China's Five Systemically Important Banks (%) Unit: million Yuan

Bank 2011		Bank of China			Agricultural Bank of China		
		2011	2010	2009	2011	2010	2009
Liquidity Ratio	RMB	45.30	43.20	45.30	42.44	38.36	40.99
	FCY	56.60	52.20	55.60	115.82	127.03	122.54
Loan-to-deposit Ratio		68.50	70.20	70.30	55.47	55.77	55.19
Bank 2011		Industrial and Commercial Bank of China			China Construction Bank		
		2011	2010	2009	2011	2010	2009
Liquidity Ratio	RMB	30.30	31.80	30.70	51.46	51.66	48.20
	FCY	50.70	53.40	61.10	53.22	55.70	95.18
Loan-to-deposit Ratio		61.20	62.00	59.50	—	—	—
Bank 2011		Bank of Communications					
		2011	2010	2009			
Liquidity Ratio (RMB and FCY)		35.69	32.23	27.83			
Loan-to-deposit Ratio		70.61	72.1	71.97			

Sources: The banks' annual reports in 2010 and semi-annual reports in 2011

The data of liquidity indicators in Table 3 shows that China's five systemically important banks have all met the regulatory requirements. Loan-to-deposit ratios are all no higher than 75 % and liquidity ratios are all not less than 25 %.

Similarly, the liquidity indicators of four more representative commercial banks (i.e., Shanghai Pudong Development Bank, Huaxia Bank, Everbright Bank and Minsheng Bank) are listed in Table 4.

The data of liquidity indicators in Table 4 shows that most of these four representative banks' indicators have met the regulatory requirements except Huaxia Bank's loan-to-deposit ratio (FCY) in 2011 and Minsheng Bank's liquidity ratio in 2011.

Table 4: The Liquidity Indicators of China's Four Representative Commercial Banks (%)

Unit: million Yuan

Bank		Shanghai Pudong Development Bank			Huaxia Bank		
		2011	2010	2009	2011	2010	2009
Liquidity Ratio	RMB	42.76	40.28	48.71	36.73	38.10	28.68
	FCY	54.82	54.54	55.32	55.87	78.20	97.61
Loan-to-deposit Ratio	RMB	70.62	69.76	71.60	67.89	66.90	71.28
	FCY	73.79	78.17	56.27	86.80	73.01	51.47
Bank		Everbright Bank			Minsheng Bank		
		2011	2010	2009	2011	2010	2009
Liquidity Ratio	RMB	35.29	45.63	35.15	25.49	32.35	34.12
	FCY	33.01	95.81	42.81	—	92.99	126.24
Loan-to-deposit Ratio	RMB	70.75	71.15	77.19	73.25	75.38	75.00
	FCY	71.10	71.63	78.15	—	85.95	38.98

Sources: The banks' semi-annual reports in 2011

Above all, China's banking industry has mainly reached the quantity standards of liquidity management proposed by Basel III. Though there are some banks that fail to meet supervisory requirements on part of the indicators, it's likely that they will complete the corresponding adjustment and reform during the transition period.

While the implementation of Basel III's quantitative criteria in China is relatively good, it's still necessary to note that there is considerable room left for improvement in the aspect of quality.

First, under the new framework of strengthening the definition of capital, problems on capital management still exist. For instance, some deductions are not included in accordance with the regulations, some debt instruments are unqualified and the way to make equity investment is relaxed, etc.

Second, the reason why China's commercial banks maintain a high level of capital quality is that common equity dominates the tier-1 capital they hold. Because of this, the convergence of core tier-1 capital and tier-1 capital is visible for China's commercial banks. Common equity does have a strong ability to absorb losses of risks, but its high-cost feature will leave China's banks at a disadvantage in the context of a unified regulatory standard.

Third, the reason why China's commercial banks maintain a comparatively low level of leverage ratio is that banks remain dependent on interest income. China's banks seem to meet the supervisory requirements, but in the long term, the problem of weak intermediate business and insufficient financial innovation may make banks run out of steam.

3. Suggestions for further development of China's banking industry

3.1 Promoting capital structure adjustment and broadening capital supplement channels

First, banks should promote capital structure adjustment and strengthen management of internal economic capital. This means that banks need to improve the capability of active management of assets and liabilities, reasonably adjust the asset structure according to the risk tolerance of capital, transform the profit growth model, and improve the strength and also the operational efficiency of capital. Meanwhile, banks should improve the assessment process of internal capital adequacy considering risk, return and occupied capital together as whole, in order to achieve effective control of assets.

Second, as mentioned above, there are still problems on capital management such as incomplete deductions and unqualified debt instruments. The way to deal with these problems is to replenish capital. However, the majority of domestic banks take equity financing as the most important way to replenish capital, ignoring internal capital generation. So equity financing is not a sustainable source for capital adequacy. Due to the high cost of external financing, dependence on equity financing will definitely restrict the long run of banks' development. Therefore, banks should look for new channels of

capital supplement attempt to set up a new capital supplement mechanism by making use of retained earnings.

Third, banks should establish a proactive and dynamic capital provisioning system. Dynamic provisioning system refers to a provisioning system corresponding to the economic cycle. Banks should increase capital provisions in the times of economic boom and reduce capital provisions in the times of economic downturn to guard against systemic risks.

3.2 Transforming business models and developing intermediary and off-balance business

As mentioned, Basel III will have a great impact on profitability of banks in China. Against this background, how to change the business model has become a key point of the sustainable development of domestic banks in the future.

First, banks should adjust the business structure and develop intermediary business actively. The current status quo of banks in China is that they are highly dependent on wholesale credit business that tied up a lot of capital. Because of smaller risk, lower cost and higher income, expanding non-interest business, retail business, intermediary business and off-balance business becomes an important way of changing the situation and increasing profit for banks. This is to shift banks from a business model based on interest business to one based on both interest business and intermediary business.

The 2011 mid-year reports released by China's five systemically important banks show that their intermediary business has improved a lot. However, compared with that of the banks in western countries, the intermediary business of Chinese commercial banks is far behind in terms of both quality and quantity. At present, the intermediary business of Chinese commercial banks still concentrates on traditional settlement, foreign exchange, collection and payment, credit card, letter of credit, negotiation and so on, whereas high-tech and high value-added off-balance business products are still inadequate. The way to solve this problem for China's banking industry is to further develop intermediary and off-balance business such as bank card payment, settlement, insurance agency business, consulting services, derivatives transactions and so on. Meanwhile, banks should further develop retail business such as individual housing mortgages, consumer durables loans and personal finance, thus improving profitability and diversifying risks.

In addition, China should strive to improve capital market development and provide banks with conditions for financial innovation. Banks need to build their core competence through innovation in financial products with high profit, ample liquidity, low risk and low cost.

3.3 Increasing the intensity of risk management and refining its standards

Even though China's banking industry has met Basel III's requirements in quantitative ratios, its qualitative operation remains to be improved.

Firstly, daily monitoring and stress testing of regulatory indicators should be carefully conducted. Some important risk management indicators especially capital adequacy ratio and provision coverage should be comprehensively monitored. Meanwhile, in order to provide early warnings for potential risk and losses, the control of market risk, credit risk, operating risk and liquidity risk ratios should also be strengthened. The banking industry should explore its own stress testing methods which are in line with domestic market situation and banks' characteristics by referencing mainstream pressure test method and cash pressure test method. Stress testing should be regularly conducted.

In addition, the construction of related database should be constantly improved so that the delicacy management of bank risk can be enhanced. Sophisticated database is of great significance for future management and risk prediction. The banking industry should continually accumulate risk events during business operation and incorporate them into the computer system so that they can be used to calculate the subsequent risk indexes (such as VaR). Meanwhile, in order to conduct the delicacy management of bank risk, the data and conditions should be carefully detailed during the process of incorporation.

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The Growth and Challenges of Small- and Medium-Sized Banks in China

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List of Abbreviations

CBRC	China Banking Regulatory Commission
CDA	China Development Bank
CDB	China Development Bank
NPLs	non-performing loans
PBOC	People's Bank of China
ROA	return on asset
ROE	return on equity
SBU	special business units
SMBs	Small and medium-sized banks
SMEs	Small and medium enterprises
WTO	World Trade Organization

1. Introduction

It has been over ten years since China joined the World Trade Organization (WTO) at the end of 2001. During this period, China has gradually opened up its banking industry to the world and pushed forward its banking reform. Fortunately, not only has the overall strength of China's banking industry enhanced, but also small and medium-sized banks (SMBs) have grown very rapidly and their competitiveness has improved remarkably. With the increase of their asset size, the SMBs have obtained robust growth in the market share and have become an important force of China's banking industry. In recent years, banks in some other countries have experienced a decline in strength after being heavily hurt by the global financial crisis. As a result, the number of their banks in *The Banker's Top 1000 World Banks* has declined steadily. In striking contrast to this, the number of Chinese banks among the Top 1000 ranking has greatly increased, resulting from fast and stable macro-economic growth in China (Wang and Peng, 2010). In 2007, only 31 Chinese banks entered the ranking, and 2008, the number increased to 45, and then rose to 84 in 2009. There were 111 and 110 Chinese banks in the ranking respectively in 2011 and in 2012, of which 5 are large banks, the rest are small and medium-sized ones. This fact has fully proven that though still small compared with large state-owned banks, some of them have grown into big banks by the international standards. Their rapid development has helped to improve the status and influence of China's banking industry in the world market.

The healthy growth of SMBs is of great significance. Their presence is important not only to maintain a reasonable banking market structure and appropriate market competition, but also to serve small and medium enterprises (SMEs) (Berger and Udell, 1998; Lin and Li, 2001). What's more, they play an indispensable role in narrowing the income gap between urban and rural residents and promoting transformation of dual economic structure (Peng and Li, 2006; Peng, 2010). Therefore, to promote their healthy development, it is necessary to understand their growth condition, analyze the causes of their growth and the challenges facing them.

This paper first analyzes the development of China's SMBs based on the banking market structure and its changes. Then, it moves to the discussion of the opportunities and challenges on the basis of the advantages and disadvantages of the SMBs, and finally concludes by providing feasible ways to promote their healthy development.

2. The growth of China's SMBs and the changes of the banking market structure – a land of small- and medium-sized companies

2.1 The characteristics of China's banking market structure

China's banking market structure is obviously characterized by oligopoly (see Figure 1) (Chen, 2007). The 5 state-owned banks have first-mover advantage. By virtue of their huge size and distribution of banking outlets throughout the country, they occupy most of the market share.¹ The average size of the two policy banks, China Development Bank and Postal Savings Bank of China, has achieved 3.1 trillion Yuan, but they can't operate as a full range of banking business for various reasons.² Most of the 12 national joint-stock commercial banks were born in the 1980s or 1990s, whose average asset size has reached 6.13 trillion Yuan.³ Although their banking outlets are not so widespread as those of the state-owned banks, they also cover in most parts of the country. In addition, there are 144 city commercial banks, over 400 rural commercial banks and rural cooperative banks, and more than 2000 rural credit cooperatives in China. With a much smaller size, they mainly provide banking services to local residents and SMEs.⁴ The average asset-size of 40 locally incorporated foreign banks has exceeded that of the total rural commercial banks, but still fall behind that of the city commercial banks.

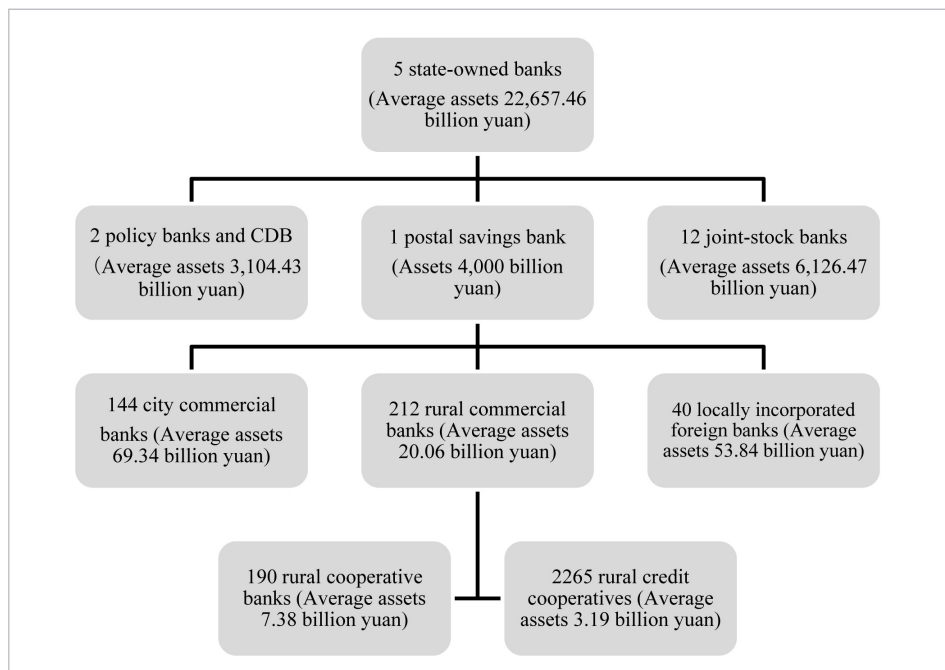
1 Bank of Communications, originally a joint-stock bank, became the fifth state-owned bank after being invested by Central Huijin Investment Ltd. (a state-owned financial investment cooperation responsible for managing state assets in financial industry) in 2004.

2 The two policy banks are China Import and Export Bank and China Agricultural Development Bank, which conduct policy financial business within specific areas. China Development Bank has no retail outlets in the process of the transformation from a policy bank to a commercial bank. Postal Savings Bank of China was established in 2007, and changed into a limited share holding company by the end of 2011. So the SMBs refer to the joint-stock banks, foreign banks, as well as city and rural small and medium-sized financial institutions in Figure 1.

3 Including China Merchant Bank, China Minsheng Bank, China CITIC Bank, Shanghai Pudong Development Bank, Industrial Bank, China Everbright Bank, Huaxia Bank, Ping An Bank (originally Shenzhen Development Bank), China Guangfa Bank (originally Guangdong Development Bank), China Bohai Bank, China Zheshang Bank and Evergrowing Bank (originally Yantai Housing Saving Bank).

4 In the last five years, about 700 village or township banks have been set up by commercial banks to serve farmers as well as small and micro businesses. As their size is too small, their market share is negligible. Their data are not provided by the CBRC.

Figure 1: The structure of Chinese banking market



Source: Calculated according to data from China Banking Regulatory Commission (CBRC) Annual Report 2011

2.2 The growth of China’s SMBs

Table 1 displays the number of legal entities and staff of China’s various SMBs. When the five year transition period after China’s accession into the WTO came to an end in 2006, China speeded up the banking reform. For SMBs, this was mainly reflected in the changes of the number of legal entities and staff. City commercial banks were formed on the basis of restructuring urban credit cooperatives, resulting in an increase of the former and a decline of the latter. Several urban credit cooperatives within a region or neighboring regions were restructured into a city commercial bank after stripping off bad assets and injecting capital, with the help of local governments. The formation of rural commercial banks and rural cooperative banks was also based on the restructuring of rural credit cooperatives (Su, 2012).

On the whole, the total of legal entities of SMBs shrank by a number of 16795, or 85.4%, while the total of staff increased by a number of 343,537 or 35.8% in 2006–2011. Considering the average number of staff per legal entity, there is a large difference among various banks. The number of joint-stock banks maintained at 12, while the total number of staff more than doubled, with an average staff of 23,171 persons per bank, nearly the

same size as that state-owned banks. City commercial banks and rural credit cooperatives also witnessed an increase in the average number of staff by 541 and 203 persons, reaching 1550 and 236 persons per legal entity respectively. However, the average number of staff per rural commercial bank and rural cooperative bank that cut down redundant employees for improving efficiency fell by 805 and 96 persons respectively, to only 733 and 369 persons respectively in 2011. Affected by the financial crisis, the number of staff per foreign bank dropped at first, and rose after 2008, getting to 1057 persons in 2011, which was still smaller than the average number of 1195 in 2006.

Table 1: Number of legal entities and staff of China's SMBs (2006–2011)

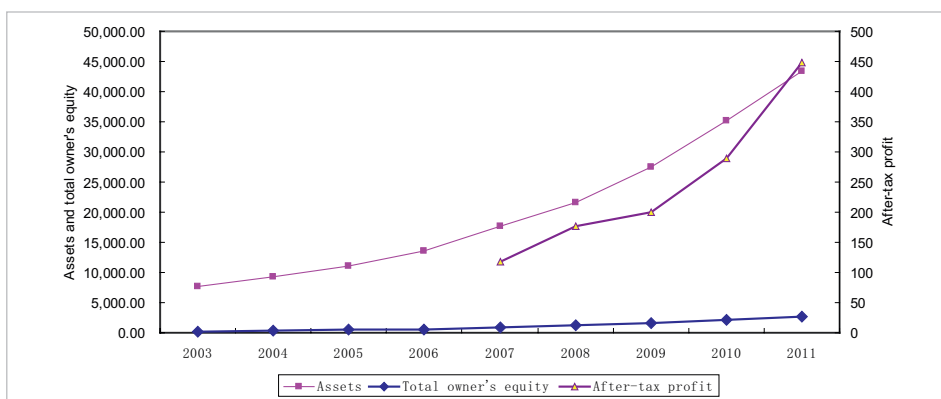
Number of legal entities	2006	2007	2008	2009	2010	2011
Joint-stock commercial banks	12	12	12	12	12	12
City commercial banks	113	124	136	143	147	144
Rural credit cooperatives	19,348	8509	4,965	3056	2646	2,265
Rural commercial banks	13		22	43	85	212
Rural cooperative banks	80		163	196	223	190
Foreign banks	14	29	32	37	40	40
Urban Credit Cooperatives	78	42	22	11	—	—
Total	19658	8716	5352	3498	3153	2863
Number of staff	2006	2007	2008	2009	2010	2011
Joint-stock commercial banks	118,036	139,943	167,827	197,657	237,158	278,053
City commercial banks	113,999	123,380	150,920	177,765	206,604	223,238
Rural credit cooperatives	634,659	716,058	583,767	570,366	550,859	533,999
Rural commercial banks	20,003		38,526	66,317	96,721	155,476
Rural cooperative banks	37,188		63,770	74,776	81,076	70,115
Foreign banks	16,724	31,343	27,812	32,502	36,017	42,269
Urban Credit Cooperatives	19,004	9,367	7,080	2,956	—	—
Total	959613	1,020,091	1,039,702	1,122,339	1,208,435	1,303,150

Source: CBRC Annual Report, 2006–2011

Figure 2 shows the assets, total owner's equity and after-tax profit of SMBs. From 2003–2011, their assets increased from 7,874.53 billion Yuan to 43,581.4 billion Yuan, while the total owner's equity rose from 175.6 billion Yuan to 2,740.1 billion Yuan, with a growth

rate of 453.4% and 1460.4% respectively. The after-tax profit went up from 336.7 billion Yuan to 1584.6 billion Yuan during 2007–2011, an increase of 370.6%. The growth rate of these three indicators was higher than that of five state-owned banks during the same period, which was 234.1%, 418.4% and 169.5% respectively. What is specially worth mentioning is that the asset size of both urban and rural credit cooperatives increased by 157.57%, and their total owner’s equity boosted from -13.3 billion Yuan to 347.6 billion Yuan, though the number of their legal entities declined during 2003–2011. By making an international comparison, we can better show the fast growth of China’s SMBs, with an increasing number entering *The Banker’s* Top 1000 world banks ranked by Tier 1 capital each year (Table 2). Therefore, more and more SMBs have become large ones by international standard.⁵

Figure 2: The assets, total owner’s equity and after-tax profit of China’s SMBs (billion Yuan)



Source: CBRC Annual Report, 2006–2011

Table 2: The number of China’s SMBs among *The Banker’s* Top 1000 world banks

	2007	2008	2009	2010	2011	2012
Small and medium-sized banks	26	40	47	79	106	105
City commercial banks	14	24	28	50	65	62
Rural banks	3	4	7	17	19	25
Joint-stock banks	9	12	12	12	12	12
Foreign banks	—	—	—	—	10	6

Source: *The Banker*, July 2007–2012

5 According to the People’s Bank of China (PBOC), the exchange rate of RMB against the US dollar changed from 7.8087 to 6.3009 during year-end of 2006–2011, or appreciation of less than 20%. However, the increase of total owner’s equity of China’s SMBs was over 200% during the same period.

In addition to merger and restructuring, China's SMBs have been replenishing capital through various channels, such as public listing and capital injection, so as to enhance bank strength. Up to now, among the 12 joint-stock banks, 8 are listed in the domestic stock market and 3 in Hong Kong stock market; there are also 3 city commercial banks: Bank of Ningbo, Bank of Nanjing and Bank of Beijing listed on domestic stock market. In 2010, Chongqing Rural Commercial Bank issued shares in the Hong Kong stock market, and has become the first and the only rural commercial bank listed in Hong Kong. More unlisted SMBs, for the purpose of boosting their capital strength, have brought in domestic and foreign strategic investors. In 2010 alone, the CBRC approved 23 city commercial banks' application for capital injection, changes of stockholders and increasing registered capital (Su, 2012).

Table 3: NPL ratio of China's SMBs (%)

NPLs/total assets	2006	2007	2008	2009	2010	2011	2012 Q1	2012 Q2
Joint-stock banks	7.5	2.1	1.3	1.0	0.7	0.6	0.6	0.7
City commercial banks	4.8	3.0	2.3	1.3	0.9	0.8	0.8	0.8
Rural commercial banks	5.9	4.0	3.9	2.8	1.9	1.6	1.5	1.6
Foreign banks	0.8	0.5	0.8	0.9	0.5	0.4	0.6	0.6

Source: CBRC Annual Report, 2006–2011 and CBRC website

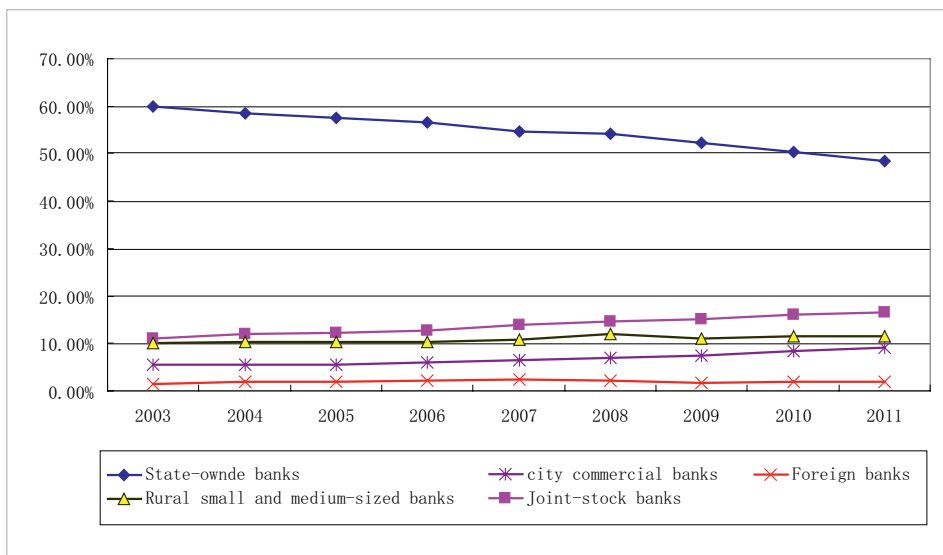
China's SMBs have also improved their risk control mechanism along with an increase in the bank size. From the data provided in Table 3, we can see that the non-performing loan (NPL) ratio of the SMBs declined year by year from 2006–2011. By the second quarter of 2012, the ratio fell to less than 2%. However, there is a large gap between rural credit cooperatives, some of those in the less developed regions still have over 10% or even higher NPL ratio (Xi and Ru, 2008). To restructure those rural credit cooperatives by getting rid of their bad assets so as to help them restore to normal health will be a hard task facing bank regulators and local governments.

2.3 The changes of China's banking market structure

As SMBs grow, the market concentration has been declining gradually, with the market share of the big banks decreasing and that of the SMBs increasing. As Figure 3 shows, from 2003 to 2011, the market share of the state-owned banks fell from 60.01% to 48.46%, and the market share of the joint-stock banks and city commercial banks rose from 11.07% and 5.47% to 16.61% and 9.02% respectively; while the market share of rural small- and medium-sized banks increased from 10.05% to 11.62%. The market share of foreign banks reached a peak of 2.4% in 2007; and afterwards it has been decreasing.

By 2011, the market share of the foreign banks was only 1.95%. However, considering the fact that foreign banks hold stakes in Chinese banks with a considerable market share, the degree of penetration of foreign banks in the Chinese banking market is higher than the data displayed (Lu, 2006).

Figure 3: The market share of Chinese banks calculated by the assets (2003–2011)



Source: CBRC Annual Report 2011

3. The opportunities and challenges facing SMBs in China

In the next few years, SMBs in China will face both opportunities and challenges due to the rapid change of domestic and international economic and financial environment.

3.1 Opportunities

First, the firm support of local governments is the most powerful boosters for SMBs. It is an advantage for China’s SMBs to have good relationship with local governments. There is no doubt that local governments will spare no effort to promote economic development. As a result, to support the banks to better serve the local economy has become an important strategy in the social and economic development for the local governments (Huang, 2010; Fu et al., 2011).

In addition to promoting local economic growth, SMBs can develop by seizing opportunities brought about by local economic transformation and construction of social insurance system.

Second, government encouragement of SME banking provides a large space for the growth of SMBs (Su, 2012).

In recent years, the government has introduced various preferential policies to solve the financing problem of SMEs. The goal is to encourage commercial banks to improve lending to SMEs. These measures include: (1) Requiring commercial banks to achieve the “two no-lower targets”, i.e. the growth rate of lending to SMEs is no lower than the average growth rate of the total loans, and the yearly growth volume of the mentioned loans no less than that of the previous year; (2) Encouraging commercial banks to prioritize credit extensions to small and micro enterprises with a credit line under 5 million Yuan for a single customer, with 75% preferential risk weight (instead of the original 100%) being applied in the calculation of capital regulatory requirements, and with the preferential capital regulatory requirements of retail loan being applied under Internal Rating Based Approach; (3) Encouraging commercial banks to issue special financial bonds for extending loans for SMEs, and allowing the banks doing well in this business to open their city-wide branches; (4) Supporting commercial banks to further provide loans to SMEs through differentiated regulatory and incentive policies with the risk tolerance of SME’s loans being properly increased. All these measures have brought about great opportunities for SMBs which mainly serve SMEs.

Third, the entry of private capital into the financial sectors lays a good foundation for improving SMBs’ capital strength.

Insufficient capital is always a big obstacle in the development of China’s SMBs that have been experiencing consistently rapid asset expansion; that is because profit retaining or stockholders’ investments cannot meet the demand of 50% or even higher yearly growth rate. The number of banks meeting the original 8% capital adequacy ratio increased to 390 by the end of 2011, but there are still over 2000 SMBs whose capital adequacy ratio fell below 8%.⁶ What is more, the new capital regulation based on *Basel III* started to be implemented from January 2012, and by the end of 2016, the capital adequacy ratio of non-systematically important banks will have to reach 10.5%.

Fortunately, China has plenty of private capital, which is looking for investment outlets. To channel private capital into financial industry, the CBRC promulgated *Opinions on Encouraging and Introducing Private Capital into Banking Sector* (hereinafter referred to as “*the Opinions*”) in May 2012. In this document, it is stipulated that private capital should abide by the same access requirements as other categories of capital when entering into the banking sector. Private capital is encouraged to participate in the restruc-

⁶ CBRC Annual Report 2011, p. 25.

turing of city commercial banks, and private enterprises are supported to take part in the reform of rural credit cooperatives and capital injection of rural commercial banks. “*The Opinions*” further facilitates the entrance of private capital into SMBs. As of end-2011, private capital accounted for 42% 54% and 92% of the total equity of joint-stock banks, city commercial banks and small-and medium-sized rural financial institutions respectively.⁷ More private capital into the banking sector will provide easier access to capital resources for SMBs in need of capital (Su, 2011; Su, 2012).

3.2 Challenges

3.2.1 Challenges caused by the lack of deposit insurance system

The lack of deposit insurance system is a defect of China’s banking industry. Without deposit insurance, ordinary residents and small enterprises prefer to put their money in the state-owned banks because they have the government’s implicit guarantee while SMBs do not.

As Table 4 shows, the proportion of deposits in the total funding sources for both state-owned banks and SMBs tended to decline from the first quarter of 2010 to the second quarter of 2012, an obvious sign of financial disintermediation under the background of negative real interest rate.⁸ But deposits taken by the four state-owned commercial banks still accounted for over 90% of their funding sources, while the proportion was 73%–80% for SMBs. On the contrary, the proportion of inter-bank borrowing for SMBs reached 18.2% in the second quarter of 2012 from 9.9% in the first quarter of 2010, and the proportion of financial bonds had remained at a high ratio of over 9%, while for the state-owned banks, these two types of sources together accounted for less than 9%.

That is why the loan-to-deposit ratio of SMBs was always higher than that of the state-owned commercial banks (Figure 4). In 2011, when a tight monetary policy was implemented, the inter-bank interest rate shot up to 9%, and the interest rate of financial bonds was also much higher than bank deposit rate, which had no doubt increased the cost of funds of SMBs (Su, 2011; 2012).

⁷ CBRC Annual Report 2011, p. 31.

⁸ The bank one-year deposit rate was below CPI most of the time during that period due to interest rate control.

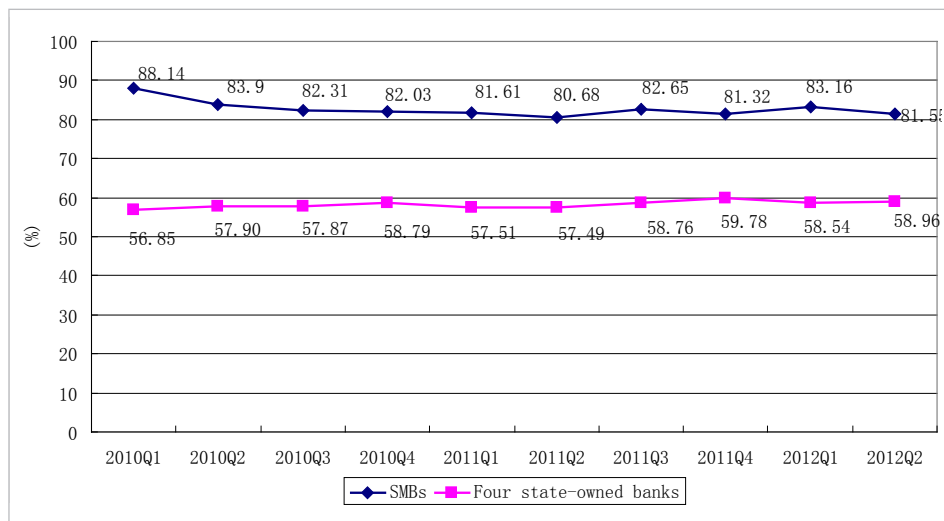
Table 4: The proportion of various fund sources of SMBs and four state-owned banks (2010 Q1–2012 Q2: %)

Funds sources		10 Q1	10 Q2	10 Q3	10 Q4	11 Q1	11 Q2	11 Q3	11 Q4	11 Q1	11 Q2
Deposits	SMBs	76.6	79.0	80.5	80.0	76.6	79.0	80.5	79.9	71.5	72.0
	Large banks	95.6	94.5	95.4	93.5	95.6	94.5	95.4	93.5	91.6	92.0
Financial bond issue	SMBs	9.9	9.6	9.6	9.4	9.9	9.6	9.6	9.4	10.5	10.7
	Large banks	0.9	0.8	1.0	0.9	0.9	0.8	1.0	0.9	1.3	1.3
Interbank borrowing	SMBs	9.9	9.6	9.6	9.4	13.8	12.1	11.5	12.4	16.5	18.2
	Large banks	7.8	6.9	6.1	5.8	7.8	6.9	6.1	5.8	7.5	6.7

Note: SMBs refer to banks with total assets (both in RMB and foreign currency) of less than 2 trillion Yuan, and operate in more than one province (with bank asset size at the end of 2008 as criteria). The four large state-owned banks are those excluding Bank of Communications.

Source: Calculated according to the data provided by the People's Bank of China (PBOC): www.pbc.gov.cn

Figure 4: The loan-to-deposit ratio of SMBs and four large state-owned banks (2010 Q1–2012 Q2: %)



Note: The four large state-owned banks are those excluding Bank of Communications.

Source: Calculated according to the statistics provided by the People's Bank of China (PBOC): www.pbc.gov.cn

3.2.2 Challenges from the banking market competition

In recent years, competition in China's banking market has become increasingly fierce with a gradual expansion from large-corporation and personal banking to SME banking. To alleviate the plight of SMEs financing, the CBRC encourages large commercial

banks to provide financial services through a series of measures: establishing special business units (SBUs) in light of their own situations to provide financial services to SMEs; clarifying that the SBUs apply separate loan risk classification and the loss provision rules; implementing a separate NPL disposal policy and the quick writing-off policy to write off the non-performing assets in time. These policies have motivated large banks to provide loans to SMEs. As a result, SMBs, especially the local ones are confronted with the challenge created by the loss of SMEs customers (Su, 2011).

In addition, competition in bank deposit-taking has long been in existence. The lack of deposit insurance system, combined with insufficient number of banking outlets, put SMBs at a disadvantage. After the restart of market-oriented interest rate reform in 2012, nearly all SMBs increased their interest rate on one-year deposit rate by 10%.^{9 10}

3.2.3 Challenges for banks' sustainable development caused by low profitability

In the past four years, the profitability of SMBs, measured by either ROA or ROE, was improving gradually, but still lagged behind that of the state-owned banks (see Table 5); thus, despite the rapid development, they still face the challenges for sustainable development caused by the lack of profitability.

Apart from the high borrowing cost resulting from low deposit-taking ability, another reason for the low profitability of SMBs is their simple asset structure and high operational cost. For SMBs, the loan size in proportion to total assets is as high as 60%-80%, while for the state-owned banks, the loan-to-asset ratio remained around 55%. Most of the customers in the SMBs are SMEs with no standardized balance sheets, more opaque information, and higher risk. Although the interest rate on loans to SMEs is higher, relationship lending requires the acquisition of soft information from various channels, thus greatly boosting the cost of credit investigation, assessment and loan monitoring (Li and Su, 2010). As a result, bank profit is eroded.

⁹ In this market-oriented interest rate reform, the People's Bank of China decreased bank bench-mark deposit interest rates, but at the same time allowed each commercial bank to set its own interest rate not exceeding 10% of the bench-mark rate.

¹⁰ Even with the same deposit interest rate, the joint-stock banks charged lower interest rate on loans, resulting in a narrower deposit and lending spread. See He (2010).

Table 5: The profitability of the SMBs and state-owned banks (2008–2011)

	Return on assets (ROA)				Return on equity (ROE)			
	2008	2009	2010	2011	2008	2009	2010	2011
State-owned banks	1.16 %	1.09 %	1.17 %	1.32 %	19.94 %	19.25 %	20.37 %	21.32 %
Joint-stock banks	1.04 %	0.90 %	1.02 %	1.20 %	21.56 %	18.40 %	19.67 %	21.12 %
City commercial banks	1.09 %	1.01 %	1.14 %	1.21 %	17.95 %	15.87 %	18.31 %	18.86 %
Rural SMBs	0.79 %	0.77 %	0.82 %	1.09 %	14.78 %	14.10 %	13.52 %	17.71 %
Foreign banks	0.92 %	0.48 %	0.50 %	0.86 %	9.20 %	4.17 %	4.41 %	8.45 %

Note: ROA=after-tax profit/the average of total assets of the two most recent accounting periods. ROE=after-tax profit/the average of total owner's equity of the two most recent accounting periods.

Source: calculated according to the data provide by CBRC Annual Report 2011

In addition, scarce categories of products also have a negative impact on the profitability of SMBs. In 2011, the government eliminated some bank service fees of 34 kinds in 11 classes, while state-owned banks lowered the charge of their service fees or broadened the scale of their business discount which have brought greater pressure on SMBs.¹¹

3.2.4 Challenges of risk management caused by rapid expansion

The rapid expansion of SMBs poses great challenges to the management and risk control abilities. In recent years, some city commercial banks have set up branches and sub-branches outside the cities of their headquarters, so that their original two-tier management system turns into three-tier model (headquarter, branch and sub-branch) which increases the personnel and management cost and lengthens management chain, thus leading to declining management efficiency (Fan et al., 2010, Chen and Ye, 2011). Challenges of organization management and risk control appear when management loopholes are exposed. During the year of 2010 and 2011, the cases of bank losses due to operational risk for some SMBs cropped up again.¹²

More importantly, as China starts structural transformation, the economic growth rate has slowed down. Compared with large enterprises, SMEs are much more fragile and more easily affected by external shocks. Therefore, SMBs whose customers are mainly SMEs are exposed to greater credit risk (Su, 2011). Since 2012, “the double drop” of NPLs

11 The government regulation of bank service fees was due to a survey that arose widespread attention. According to the survey, bank fees soared from 300 to more than 3000 types from 2003 to 2011. See “Beginning July 1, banks will cancel part of the service charge change fees”. Chinahourly: wine <http://www.chinahourly.com/bizchina/201207/127106.html>.

12 For example, Bank of Qilu, a city commercial bank headquartered in Jinan, the capital city of Shandong Province, has been found to be involved in a massive loan fraud. See: Bank of Qilu probed for loan fraud, <http://www.globaltimes.cn/business/industries/2011-01/609066.html>.

(the drop of NPL balance and the drop of NPL ratio) in the Chinese banking industry has decreased, when all commercial banks witnessed a fall of or a unchanged NPL ratio as well as a rise of NPL balance. In fact, the joint-stock banks and rural commercial banks experienced both an increase of NPL ratio and NPL balance.¹³ Therefore, it is the priority of SMBs to strengthen risk control and improve management efficiency in the rapid expansion.

4. Conclusion

In recent years, SMBs in China have obtained a robust growth in the process of gradual deepening of reform and opening up in the banking industry. Although the number of legal entities declined, the number of staff increased rapidly, together with their asset size, total owner's equity and after-tax profit growing exponentially. At the same time, the risk management was also improved, and the NPL ratio was cut down to a satisfactory level. As China's SMBs improved their strength, their market share grew remarkably, and their number was steadily increasing among *The Banker's* Top 1000 World Banks. By international standards, more and more SMBs have grown into large ones, and have become an important force in the Chinese banking market.

One of the comparative advantages of SMBs in China is their good relationship with local governments, with whose support they can conduct more businesses. The Chinese government encourages commercial banks to provide financial services to SMEs. That policy benefits SMBs which mostly serve SMEs. Allowing private capital into the banking sector further enhances their capital strength. But in the short time, the monopoly in China's banking market is unable to be broken down completely, and SMBs still face unfair competition due to the lack of deposit insurance system, and other difficult situations such as higher loan-to-deposit ratio. In addition, the profitability is unsatisfactory because of simple asset structure, high borrowing cost and so on. Last but not least, the difficulty to improve management efficiency and control risk has increased after the rapid expansion of their business scales.

In the foreseeable future, SMBs will differentiate. Those who can identify their market positions and form their own core competitiveness will grow further, and even be able to compete with large banks. Those with lower profitability and management skill will face acquisition or reorganization. Therefore, the Chinese government needs to provide a fair playing field, and at the same time maintain macroeconomic stability. At present, it is imperative to establish deposit insurance system, which is a precondition for further market-oriented interest rate reform and healthy growth of SMBs.

13 The CBRC's website: <http://www.cbrc.gov.cn/chinese/home/docView/7E1679F277BC4161982E2BCF068E5DDA.html>.

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China's Bank Reform and the Roles of Sovereign Wealth Fund

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List of Abbreviations

ABC	the Agriculture Bank of China
ADBC	Agricultural Development Bank of China
BOC	the Bank of China Bank of China Ltd.
CBC	the Construction Bank of China
CBRC	the China Banking Regulatory Commission
CCB	China Construction Bank Corporation
CDB	the China Development Bank
Central Huijin	Central Huijin Investment Ltd.
Chexim	the Export-Import Bank of China
CIC	China Investment Corporation
ICBC	the Industrial and Commercial Bank of China Industrial and Commercial Bank of China Ltd.
PBOC	the People's Bank of China
SOEs	state-owned-enterprises
SWF	Sovereign Wealth Fund

1. Introduction of China's bank reform

In the late 1970s, China was still a centrally planned economy, with the government controlling and planning almost all business activities. The government ruled not only the capital allocation processes, but also production plans, labor markets and product markets. Most economic activity was in the hands of state-owned-enterprises (SOEs), which commonly did not prioritize wealth maximization. Rather, the objectives of SOEs focused on fulfilling the government's economic plans and serving social objectives such as achieving a high employment rate. Chinese banks mainly served SOEs and bank loans were allocated according to political priorities, rather than on the basis of purely economic considerations, which resulted in low levels of efficiency and led to a large proportion of nonperforming loans in the state-owned banking sector.

To solve these problems, China's banking industry was subject to a series of reforms, articulated in four distinct stages.

1.1 Stage 1 (1978–1993): Rebuilding the financial system

Prior to 1978, the Chinese financial system was structured as a mono-bank model, in which the People's Bank of China (PBOC) acted simultaneously as both a central bank and a commercial bank. In 1978, the government began to implement banking reforms focused on adjusting the structure and operations of China's banking system. A two-tiered banking system emerged and various banking functions were separated from the People's Bank of China as the latter began to truly act as central bank. Four specialized state-owned banks--the "Big Four", each focused on a different market segment--emerged: the Bank of China (BOC) focused on foreign exchange business, the Agriculture Bank of China (ABC) with a focus on agriculture finance, the Construction Bank of China (CBC) with emphasis on large infrastructure project finance, and the Industrial and Commercial Bank of China (ICBC) which served city savings and lending businesses.

This strict separation of functions was somewhat relaxed in 1985, when the PBOC announced a new policy of encouraging competition between banks. This, in turn, led to overlap among banks in terms of target business sectors.

In 1986, the first domestic joint-equity bank was established, the Bank of Communications. Thereafter, various commercial banks were set up, such as Shenzhen Development Bank, China Merchant Bank, China Everbright Bank, Shanghai Pudong Development Bank, Fujian Industrial Bank and Hua Xia Bank.

During this stage, there was very limited competition among banks, because they served mainly as policy-lending "conduits" for the government, and proper incentives for management were lacking. Despite the separation of functions, performance of the banking system remained poor, mainly due to government influence in the fund allocation process.

1.2 Stage 2 (1994–1997): Regulating the financial system

During the second stage, the government began transforming state-owned specialized banks into state-owned commercial banks. This involved numerous reforms. First, as it became increasingly clear that policy lending was leading to deterioration in asset quality in all banks, the government decided to establish financing vehicles dedicated to such political, or social, lending, in order to allow other banks to pursue purely commercial goals. Hence, three specialized “policy” banks were established, the China Development Bank (CDB), the Export–Import Bank of China (Chexim), and Agricultural Development Bank of China (ADBC).

Second, two broad new pieces of legislation were promulgated in 1995, the Central Bank Law and the Commercial Bank Law. The former clearly established the structure and role of the Central Bank, while the latter focused on the governance of commercial banks. The Commercial Bank Law prompted autonomous management, but also called for banks themselves to assume responsibility for risk, for profit and loss, and self-discipline. Finally, also in the spirit of increasing the stability of the financial system, credit ceilings were established.

During this stage, the banking sector was still in transition. Despite initial attempts at encouraging banks to follow economic, rather than political, priorities, government intervention and influence were still very strong.

1.3 Stage 3 (1998–2002): Deepening reform of state-owned commercial banks

By the end of the 1990s, it became obvious that political lending was still pervasive, and leading to very high proportions of nonperforming loans (NPLs). In fact, most state-owned banks were technically insolvent. As the Asian Financial Crisis developed, the Chinese government advocated a series of additional reforms of state-owned banks in order to ensure financial safety. In 1998, the Ministry of Finance recapitalized the Big Four by issuing USD 32.6 billion of 30-year special government bonds and using the proceeds to enhance the banks’ capital adequacy ratios. One year later, China’s government established four asset management companies, aiming to take over the bad assets of the Big Four and the China Development Bank. Accordingly, most nonperforming loans were transferred at face value to the asset management companies, further strengthening the banks’ balance sheets.

Other measures were undertaken as well, mostly aimed at improving the governance of banks. These included the strengthening of internal management, the elimination of credit ceilings, and the imposition of managerial performance assessment linked to assets quality and loan portfolio performance. The reorganizations also involved dramatic

staff cuts, leading to a loss of over five hundred thousand jobs at the Big Four between 1998 and 2002.

Despite the many reforms made at this stage, banks still confronted many problems, especially capital constraints. Bridging the funding gap was a constant challenge and the capital supplemented by the Ministry of Finance was only temporarily sufficient. Despite multiple recapitalizations, banks were quickly becoming, once more, undercapitalized. The culprit, as before, was the high proportion of nonperforming loans, which analysts attributed largely to political interference with the lending process. Perversely, every round of government-led recapitalization led to a banking system even more closely tied to the political class. Clearly, governance reforms in the banking sector had not been fully successful; government ownership was still leading to political interference in the capital allocation process, despite the various attempts at reform. It soon became clear that, in order to survive, the Chinese banking sector had to be transformed into a modern banking system. The government had to impose governance reforms, while at the same time protecting the banking sector from the deleterious consequences of political interference and oversight.

1.4 Stage 4 (2003–present): Public listing of state-owned banks

After three stages of reform, banking governance and governmental interference were still major unresolved issues. After the turn of the century, the Big Four banks, whose combined asset accounted for 70% of the Chinese banking system, remained the top concern and priority in the national economy. Problems generated by nonperforming loans and deteriorating asset quality threatened to impede economic development. Hence, the Chinese government decided to further deepen bank reform by focusing on improving the governance of state-owned banks. The process of reform involved four steps: restructuring, recapitalization, introduction of one or more strategic international investors and, finally, public listing.

In the restructuring phase, the major goal was to reduce exposure to nonperforming assets and introduce new shareholders. By May 2004, most of bad assets were, once more, stripped off and transferred to four asset management companies. After that, Bank of China Ltd. (BOC), China Construction Bank Corporation (CCB), and Industrial and Commercial Bank of China Ltd. (ICBC) were established. By the end of 2004, the nonperforming loan ratio of CCB had decreased to 3.92%, the capital adequacy ratio reached 11.29%, and the core capital adequacy ratio hit 8.57%. The nonperforming loan ratio of BOC decreased to 5.12%, while the capital adequacy ratio and the core capital adequacy ratio rose to 10.04% and 8.48%, respectively.

The second step of the process was recapitalization through a newly established vehicle, Central Huijin Investment Ltd. (Central Huijin). Central Huijin was established at the

end of 2003 as a wholly state-owned company, authorized by the State Council to exercise rights and obligations as an investor in major state-owned financial enterprises. Yet, Central Huijin, despite being government-owned, was managed by an independent team. Central Huijin assumed stakes in a number of financial enterprises including large commercial banks, securities companies, financial holding companies and insurance companies and so on.

Between 2003 and 2005, Central Huijin used foreign reserves to infuse USD 22.5 billion into BOC, USD 22.5 billion into CCB, USD 15 billion into ICBC and, later, USD 19 billion into ABC. Central Huijin became a controlling shareholder in each of the Big Four, with the goal of addressing the ever-present governance issues. During the share-holding system reform of state-owned banks, in order to ensure the safety of injected funds, Central Huijin took a significant number of board of director seats, usually exceeding a third of all positions. This system allowed Central Huijin to exercise veto power in significant affairs. These recapitalization and governance reforms were seen as steps towards public listing of the Big Four.

The third step was to attract international strategic investors. In 1996, Asian Development Bank (ADB) became the first international strategic investor to acquire a small portion of equity in China Everbright Bank (a domestic joint-equity bank). This represented a further partial privatization of a Chinese banking firm although the very first privatization can be traced back to 1991, when Shenzhen Development Bank, a domestic joint-equity commercial bank, successfully listed on the Shenzhen Stock Exchange. More international strategic investors were introduced after 2001, when China entered the WTO. From 1996 to 2005, 14 banks were partially sold to foreign investors, including 5 city commercial banks, 6 domestic joint-equity banks, and 3 of the Big Four. Investment by foreign investors boosted market confidence in Chinese banks and it was hoped that the new shareholders would improve governance standards.

The fourth step was to encourage banks to conduct initial public offerings. The first listings were all on the Hong Kong Stock Exchange. In June 2005, the Bank of Communications went public, raising more than USD 2 billion. In October 2005, CCB raised USD 8 billion. In June 2006, BOC raised USD 11.2 billion on the Hong Kong Stock Exchange and USD 2.5 billion on the Shanghai Stock Exchange. In October 2006, ICBC raised about USD 16 billion on the Hong Kong Stock Exchange and USD 5.9 billion on the Shanghai Stock Exchange, making it the world's biggest IPO at the time. In July 2010, ABC was listed on Shanghai Stock Exchange and Hong Kong Stock Exchange simultaneously, IPO scale reached USD 22.1 billion.

IPOs by state-owned banks provided new financing but also increased transparency and led to monitoring by shareholders, which in turn led to improvements in corporate governance and operational efficiency. The nonperforming loan (NPL) ratio of ICBC decreased from 2.74% in 2007 to 0.94% in 2011; BOC's NPL ratio declined from 3.12%

in 2007 to 1.0% in 2011; CCB's NPL ratio declined from 2.60% in 2007 to 1.09% in 2011. Also by 2011, capital adequacy ratios of state owned banks had risen to 13.17% for ICBC, 12.97% for BOC, and 13.68% for CCB.

2. The roles of SWF in China's bank reform

Central Huijin is a wholly state-owned investment company established in 2003 under the Company Law of the People's Republic of China.

The purpose of setting up Central Huijin is to make equity investments in major state-owned financial enterprises in accordance with authorization by the State Council, and shall, to the extent of its capital contribution, exercise the rights and perform the obligations as an investor on behalf of the State in accordance with applicable laws, to achieve the goal of preserving and enhancing the value of state-owned financial assets.¹

The Company shall not conduct any other commercial activities, and shall not interfere with the day-to-day business operations of the state-owned major financial enterprises it controls.

The scope of business of the Company is as follows: to accept the authorization of the State to make equity investments in state-owned major financial enterprises.

In 2007, it became a wholly-owned subsidiary of China Investment Corporation (CIC). Currently, Central Huijin holds stakes in 6 commercial banks, 7 securities companies, 2 financial holding groups, 1 insurance company, 1 reinsurance company and 1 asset management company. The number of company held has increased from 11 on June 30, 2009 to 18 at the end of December 2011 (as shown in Table 1).

¹ See http://www.huijin-inv.cn/hjen/aboutus/aboutus_2008.html?var1=About.

Table 1: Companies held by Central Huijin Investment Ltd. as of December 31, 2011.

name	total share capital	Central Huijin's holdings	
		holding	percentage
China Development Bank	306.711	146.092	47.63 %
Industrial and Commercial Bank of China	349.083	123.694	35.43 %
Agricultural Bank of China	324.794	130.310	40.12 %
Bank of China	279.147	188.701	67.60 %
China Construction Bank	250.011	142.836	57.13 %
China Everbright Bank	40.435	19.558	48.37 %
China Reinsurance (group) Corporation	36.408	30.913	84.91 %
*New China Life Insurance Co., Ltd	3.117	0.974	31.26 %
China Jianyin Investment#	20.692	20.692	100.00 %
China Galaxy Financial Holding Company Ltd.#	7.00	5.50	78.57 %
Shenyin & Wanguo Securities Co. Ltd	6.716	2.50	37.23 %
*China International Capital Co., Ltd.#	0.125	0.054	43.35 %
Guotai Junan Securities Co., Ltd.	4.700	1.00	21.28 %
*China Securities Co., Ltd.	6.100	2.44	40.00 %
*China Investment Securities Co., Ltd.#	5.00	5.00	100.00 %
*USB Securities Co., Ltd.#	1.49	0.209	14.01 %
*China Everbright Industry Group Ltd.#	4.40	4.40	100.00 %
*Jiantou Zhongxin Asset Management Co., Ltd.#	1.90	1.330	70.00 %

Notes:

Total share capital and Central Huijin's Holdings/contributions are in billions shares for joint stock companies and billion Yuan for companies with limited liability (include wholly stated-owned companies) unless indicated otherwise.

"#" represents companies with limited liability and stated-owned companies.

"*" means companies held after June 30, 2009.

Sources: <http://www.huijin-inv.cn/>

Through many years operation, the role it plays is obvious to all.

First, Help state-owned banks build modern banking system.

Take a trial to inject foreign reserves into state-owned banks rather than supplement funds through the Ministry of Finance, solve the problem of funding constraint of the latter, make banks meet the requirement of capital adequacy ratio, ensure the successful listing of state-owned banks on H-share and A-share markets, gain competitive investment return and dividend revenue, help banks complement transition from state-owned commercial banks into modern state-owned share holding banks. As a result, the proportion of nonperforming loans has declined sharply and capital adequacy has greatly improved.

Second, improve financial institution's governance structure.

Central Huijin manages state-owned financial institutions assets through dispatching directors directly to its holdings banks and security companies, those directors' salaries come from Central Huijin. They vote in the board of directors according to their professional ability, instead of administrative orders constraint through 'documents with red title' (Hong tou wen jian) issued by high level management, which often happens in State organs, this shows a great progress in corporation governance.

But Capital constraints have been the major problem for the Big Four all along. Despite funding injections by the Ministry of Finance and Central Huijin, and financings from public listings, the problem remains unresolved. In year 2010 recapitalization wave of state owned banks has also been politically controversial.

One of the problems highlighted by analysts is the circular nature of some of the refinancing in 2010. Huijin raised capital in the domestic interbank bond market through multiple rounds bond issues. The purpose was to recapitalize three largest state-owned banks, one policy bank and one insurance company. But more than 80 % of Central Huijin's first bond issue was bought by state-owned banks, thus raising questions about whether any new funds have really been injected. Overall, rather than building new reserves, recent bond sales may have increased risk in the banking system. In a sense, banks were providing funding to themselves but no fresh cash flowed in. The rating agency Moody's criticized the whole process, noting that recapitalizing banks with bond proceeds purchased by the same banks effectively increases the leverage of the entire banking system. Moody's expressed doubts about the sustainability of this practice, noting that problems are likely to arise if leverage continues to increase while economic growth slows.

Central Huijin took exceeding a third of all positions in board of director seats, usually this system allowed Central Huijin to exercise veto power in significant affairs, therefore through directors designated by Huijin, Huijin may influence decision making in board of directors in its share holding financial institutions.

Besides, Central Huijin imitates Singapore Temasek model to support state owned financial institutions reform through equity investment, and gradually develop into a huge financial holding company. At the end of December 31, 2011, Central Huijin ex-

tended its holding companies to 18 from 11 in June 30, 2009. This trend will continue in the following years. But Central Huijin is not Temasek after all, there are many differences existing. Huijin-related companies may compete with private companies under unfair operation environment.

3. Future challenges

Through decades of reform, the Chinese banking system has undergone dramatic transformations. A modern banking system has been established, property rights have been strengthened, and corporate governance is improved. Bank's performance is showing excellent with various good indicators according to annual report. But there are many uncertainties for banks to face in future:

The Chinese bank's profit comes from the stable interest spread for many years. The net interest income account for 66.2% among banking institutions income in 2011, net fee-based income was only 14%. With the further marketization reform of Interest rate, interest spread will be narrowed. Banking will face much more pressure than before. In order to remain profit, the only way is to actively change its operating model, add intermediary business income.

In order to tackle the financial crisis, the government pushed out a stimulus package of USD 600 billion in 2008, which helped Chinese banks extend new loan in excess of one trillion USD. Most new loans were provided to large state-owned enterprises, which then invested money in the real estate market, triggering fears of a new real-estate bubble. Part of new loan will produce NPL in the next few years.

Another emerging issue is the potential bad loans produced by municipal government financing vehicles. Municipal governments are not allowed to issue bonds or borrow loans from banks, so many of them set up their own financing vehicles to borrow from state-owned banks. Based on audit results of the National Audit Office, until the end of June 2010, there were about RMB 10.7 trillion outstanding loans issued through the municipal government financing vehicles, nearly 20% or 78 municipal governments in the whole nation had the debt ratio higher than 100%, and some areas appeared overdue debts. Besides, investigation showed that Among RMB loans, loans through financing platform accounted for not more than 30%, and state-owned commercial Banks and policy Banks become the main supply. The potential bad loans risk produced by municipal government financing vehicles is not allowed to ignore because of its long maturity, large amount and supervision difficulty.

With the improvement of capital regulation, the pressure of capital supplement will increase, return on capital will be compressed. Especially after the financial crisis, the global financial regulators have further strengthened the capital requirements. According to the China Banking Regulatory Commission (CBRC) about "the Guiding Opinions

on the Implementation of New Regulatory Standards in China's Banking Industry", three minimum capital adequacy ratio requirements on commercial bank were demonstrated, namely the core tier one capital adequacy ratio, the tier one capital adequacy ratio and capital adequacy ratio were not less than 5%, 6% and 8%. Besides, counter-cyclical capital regulatory framework was introduced, including 2.5% retained excess capital and 0-2.5% of the reverse cycle excess capital. At the same time, the systematic importance banks were required to meet 1% additional capital requirements. Capital constraints will still accompany with bank development, how to solve this tough problem? Central Huijin will confront test again.

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The Exchange Rate Dimension in International Asset Allocation – Lessons Learned from the Current Financial Crisis

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1. Motivation and introduction

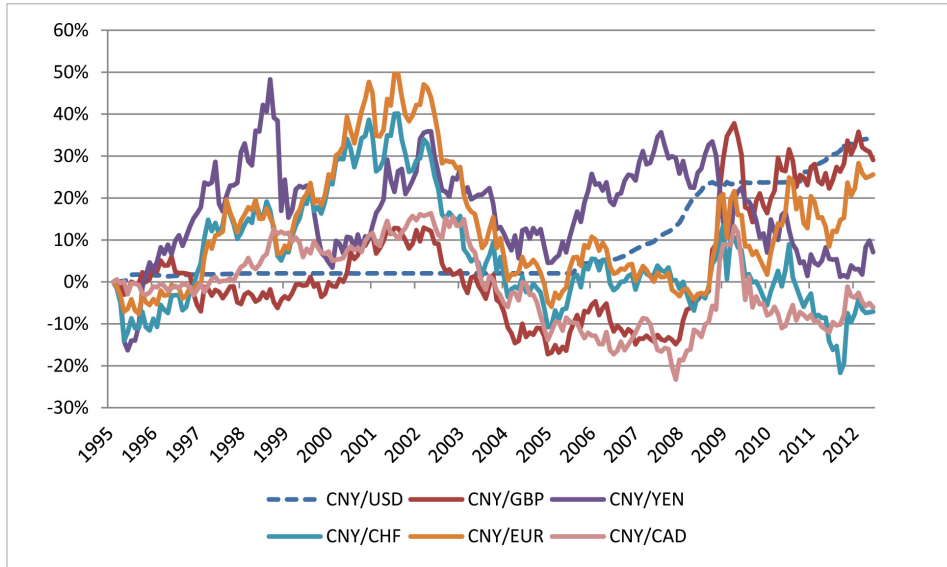
High government debt levels in several European countries and significant trade imbalances in some of them, combined with the fact, that the European Monetary Union enforced an inflexible monetary policy, led to the emergence of a euro financial crisis starting in 2009. As a consequence, lost confidence in the repayment ability of some European Sovereigns led to sharply increasing interest rates for battered EU member states (like Greece, Ireland, Portugal, Spain, Italy), followed by the devaluation of the Euro towards major currencies and also to increasing volatilities of exchange rates (Weisbrot, Montecino, 2012). As of October 2012, the situation is still unsolved, although the European Central Bank and the European Union send positive signals in order to help Greece to regain the power to act as a sovereign and to reschedule the debt such that the markets regain trust in the government decisions. Although the situation seems to be tranquilized, the development of the last 3–4 years alongside the so-called “second tier (or subprime) mortgage crisis” underline, that regional crises in our globalized world become very quickly a global crisis with significant implications not only for local, but for international asset management as well.

This paper is motivated by the increased volatility on foreign exchange markets, caused by the recent crisis, and its implications on international asset management. The questions posed in this paper are:

- Is international diversification favourable even if facing high exchange rate risks?
- Should investors hedge internationally diversified stock portfolios against exchange rate risk?
- Is it important for international asset management decisions to know the reference/numeraire currency?
- Does the answer to the last question change if the decision maker follows an active asset management strategy?

In order to offer recent and robust empirical implications of these questions they are answered from the perspective of a variety of different investors. As an example we have chosen the view of Chinese and Russian investors next to Swiss and European ones. For the following computations, figures and tables we used monthly data on exchange rates, stock indices and interest rates from Datastream and from the IMF’s International Financial Statistics Database.

Figure 1: Nominal Re- and Devaluation of the CNY, 1995–2012



Source: Calculated according to the data provided by Datastream

A general impression of nominal exchange rate changes is given by Figure 1, which depicts the development of the Chinese currency towards nine other currencies. The Chinese currency perceived a nominal appreciation towards most of the currencies with exceptions of the Swiss Franc and Canadian Dollar. Curves above the 0%-level express a nominal appreciation of the CNY. High volatility across most currency pairs for the observation period is noticeable with only exception of the US currency, which is caused by the peg of the CNY to the USD. The same figure for the Russian currency would show a significant devaluation of the Rubel.

Table 1 discloses an increasing annual volatility of CNY-exchange rates during the last years. The average volatility p.a. (bottom row) is in general lower than volatilities in the recent 3–4 years. On the one hand highest volatility values per currency pair (dark shaded) are to be observed in recent years for the majority of currencies (USD, GBP, CHF, EUR, AUD, CAD, INR)

Table 1: Volatility of CNY-Exchange Rates, 1995–2012

	CNY/USD	CNY/GBP	CNY/RUB	CNY/YEN	CNY/CHF	CNY/EUR	CNY/AUD	CNY/CAD	CNY/BRL	CNY/INR	CNY/HKD
1995	1.26%	6.23%	21.38%	18.00%	13.88%	8.34%	7.85%	5.15%	5.78%	5.73%	29.48%
1996	0.27%	7.16%	1.97%	6.57%	9.83%	6.01%	6.18%	3.27%	0.49%	8.09%	9.88%
1997	0.08%	8.46%	1.18%	12.52%	10.43%	11.02%	7.05%	4.17%	0.35%	7.81%	10.54%
1998	0.04%	6.19%	62.42%	22.48%	10.38%	8.65%	11.99%	4.90%	0.59%	5.17%	10.44%
1999	0.04%	6.02%	15.42%	11.51%	8.34%	7.91%	10.15%	5.65%	52.97%	1.44%	8.30%
2000	0.06%	6.12%	6.23%	10.07%	8.80%	8.82%	11.98%	4.15%	10.12%	2.46%	8.77%
2001	0.01%	7.08%	1.30%	11.69%	11.57%	12.28%	15.26%	6.07%	16.02%	2.02%	11.56%
2002	0.02%	6.57%	1.59%	10.19%	7.97%	7.59%	9.47%	6.78%	33.35%	1.28%	7.98%
2003	0.01%	9.81%	2.75%	7.80%	12.33%	11.18%	10.24%	7.23%	17.28%	1.78%	12.87%
2004	0.01%	9.57%	4.52%	11.18%	9.48%	8.69%	9.93%	8.82%	11.39%	6.62%	9.75%
2005	2.07%	8.46%	3.98%	7.31%	9.18%	7.96%	4.99%	6.62%	9.62%	4.42%	9.17%
2006	0.66%	7.80%	3.36%	6.17%	7.89%	6.47%	9.84%	8.35%	14.65%	5.47%	8.01%
2007	0.68%	3.84%	3.62%	7.63%	6.28%	5.94%	12.05%	10.88%	11.04%	6.12%	6.34%
2008	2.50%	13.09%	7.82%	11.57%	9.51%	11.28%	18.81%	12.76%	22.20%	7.64%	9.56%
2009	1.03%	13.36%	23.48%	11.50%	16.37%	14.80%	18.43%	15.67%	14.13%	10.79%	16.42%
2010	2.01%	11.09%	8.48%	13.08%	13.32%	14.17%	15.32%	7.92%	10.78%	8.00%	13.58%
2011	1.38%	8.10%	15.17%	6.96%	19.69%	10.88%	15.97%	9.08%	19.17%	8.87%	19.73%
Average	0.71%	8.17%	10.86%	10.95%	10.90%	9.54%	11.50%	7.50%	14.70%	5.51%	11.91%

Source: Calculated according to the data provided by Datastream

On the other hand, lowest volatilities have been calculated for 2007 or the years before (non-highlighted areas). Table 2 provides the correlation matrices for 1993 and 2011. This comparison contradicts the often presumed assumption of increasing correlation coefficients between exchange rates. From 15 selected correlation coefficients 7 show a decreasing coefficient. This table also underlines that correlation coefficients are still far from being equal to 1, which leaves a lot of room for diversification.

Table 2: Correlation Coefficients over Time, 1993 (lower left corner) and 2011 (upper right corner, highlighted)

	EUR/USD	EUR/GBP	EUR/CHF	EUR/YEN	EUR/RUB	EUR/CNY
EUR/USD	1.00	0.59	-0.08	0.86	-0.17	0.99
EUR/GBP	0.41	1.00	0.07	0.59	0.13	0.57
EUR/CHF	-0.09	0.24	1.00	0.23	0.61	-0.03
EUR/YEN	0.64	0.47	0.25	1.00	-0.15	0.89
EUR/RUB	0.54	0.50	0.20	0.29	1.00	-0.17
EUR/CNY	0.99	0.47	-0.07	0.69	0.55	1.00

Source: Calculated according to the data provided by Datastream

As a result we can summarize that exchange rates are in general quite volatile, in nominal and real terms. We could reconfirm that, beginning with the financial crisis, volatility of exchange rates increased. Furthermore, we have shown that correlation coefficients between exchange rates are not close to 1. In the following chapters we discuss the implications of these findings for international asset allocation.

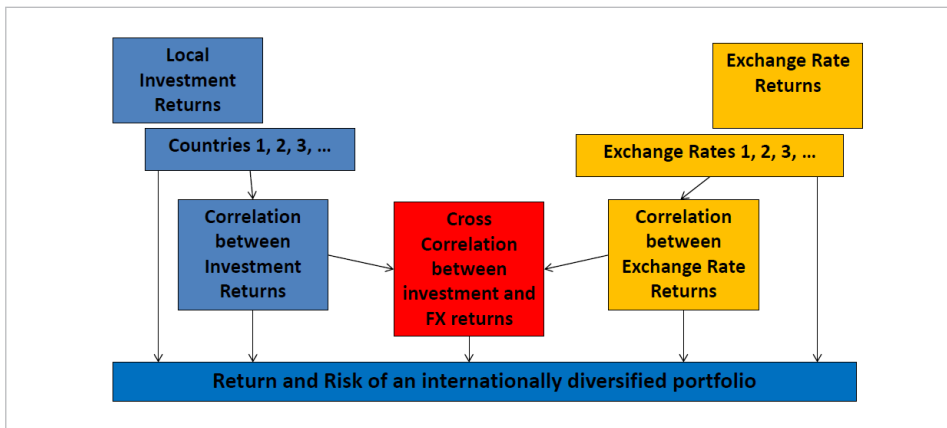
2. International asset allocation

2.1 Risk and return drivers in international asset allocation

Asset allocation defines the structure of a portfolio based upon asset categories shall be included, i.e. investments into cash, bonds, stocks, real estate, commodities, exchange rates, countries, alternative investments etc. (Bodie, Kane, Marcus, 2009, p. 957). This decision is the result of an optimization approach. The capital asset pricing theory (CAPM) gives us an understandable relationship between risk and expected return, but this model describes an economy with only one currency. The framework was later extended to the international context (Grauer, Litzenberger, Stehle, 1976). In an international setting the investor faces the risk that purchasing power parity does not hold and thus real exchange rate changes positively or negatively influence the performance of an international portfolio (Solnik, McLeavey, 2009, p. 126).

Risk and return drivers in an internationally diversified portfolio are influenced by two sources (Solnik, McLeavey, 2009, pp. 388, 878). On one hand we have to consider investment returns in local markets, calculated in local returns. On the other hand we have to respect the exchange rate between the local currency and the reference currency of the investor. In fact the calculation of the return risk will become quite complicated, as the investor has to consider the correlation coefficients between local investment markets, correlation coefficients between the relevant exchange rates and finally also the cross-correlations between investment markets and exchange rates. Figure 2 visualizes these drivers.

Figure 2: Return and Risk Drivers in an International Portfolio



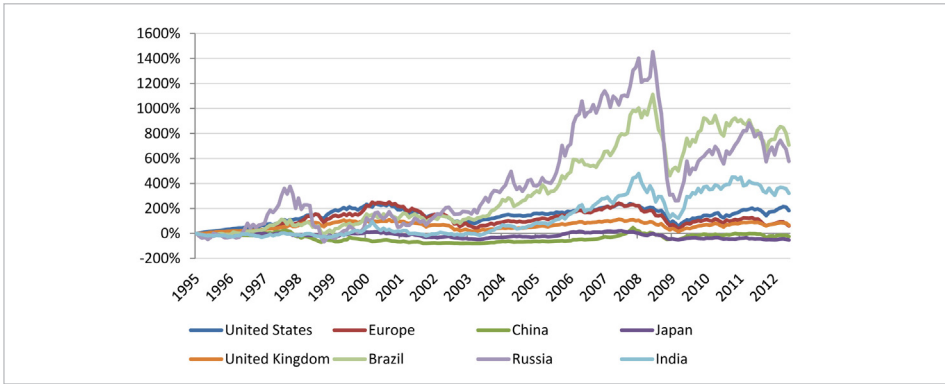
Source: authors' illustration

In case of an internationally diversified portfolio, cross-correlations have an important impact on the overall portfolio risk. Nevertheless, because of the broader asset universe, diversification over multiple countries and currencies leads in general to lower portfolio risk compared to an investment in only one single currency market.

2.2 Passive and active investment approaches

Asset allocation can be classified into a passive and an active approach (Bodie, Kane, Marcus, 2009, pp. 512 ff.). The passive investment approach assumes given security prices to be fair. Consequently, investors try to structure their portfolios in order to receive an appropriate risk-return relationship. Generally, this leads to an investment into the market portfolio.

Figure 3: Equity Investments in Domestic Currencies, 1995–2012

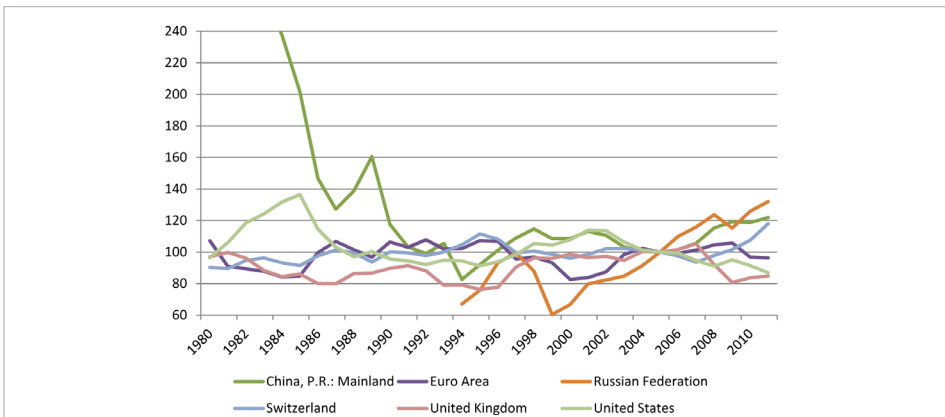


Source: Calculated according to the data provided by Datastream

An active approach in asset allocation corresponds to a short-term oriented deviation from strategic asset allocation weights in order to profit from the current over- or undervaluation of assets compared to the equilibrium price. Active management leads to the under- or overweighting of specific asset classes. Investors have to understand that a deviation from passive asset allocation means an active management of portfolios. Investors should also fully understand that active asset allocation only makes sense, if the decision maker is convinced about his ability to beat the market portfolio. For this approach the investor is in need of research and information that is qualitatively better than that of other market participants.

The higher the volatility of an asset the larger is the potential gain that can be earned through active management. Figure 3 depicts the progress of equity markets, expressed in local currencies. These risks are stressed on the left side in Figure 2. Uncertainty related to exchange rate changes (right side of Figure 2) is demonstrated in Figure 4.

Figure 4: Effective Exchange Rate Index 1980–2011 (2005 = 100)



Source: Data from International Monetary Fund, International Financial Statistics Database, 2012

Finally the investor has to decide whether he wants to be invested passively or he rather follows an active approach according to his forecast of local stock markets and foreign exchange rates. Any volatile price movement of local stock markets and/or efficient exchange rates (refer to Figure 3, 4) could be used to invest (go short) in increasing (decreasing) stock markets and to invest (go short) in appreciating (depreciating) currencies. This is a trivial but “golden rule” in active international asset allocation.

2.3 Is international diversification advantageous?

In the preceding subchapters we discussed the risk and return drivers of international investments and we mentioned the possibilities of active asset allocation strategies to take advantage from different forms of existing risks. In this closing subchapter we deliver a preliminary judgment on the profitability of international diversification based on the respective literature. As we discussed active management issues in the preceding subchapter, it is necessary to underline, that the following findings have been mostly obtained on the basis of passive investment management strategies. Moreover, prior delivering an overview about the research results, it is important to emphasize, that research approaches in this study not only use return, but also risk as a criterion for measuring the advantage or disadvantage of international diversification. The return figure alone in this context remains an incomplete measure.

Among many studies we only refer to early works from Solnik (1974) and Odier and Solnik (1993) to confirm the improvement of portfolio performance caused by international diversification. One recent research study by Vermeulen (2011) states that international stock market diversification provided large gains during the financial crisis, compared to a pure domestic investment. According to Vermeulen, international diversification has an important positive effect on stabilizing a country’s equity wealth. However what counts is not diversification as such, but effective diversification in assets with low correlation to each other.

Fernandes and Ornelas (2010) also point out that benefits of international diversification exist and that they are higher for less risk-averse investors. They underline the importance of the numeraire, having a strong effect on portfolio optimization. Chiou (2008) could prove that local investors in less developed countries like East Asia and Latin America benefit more from both, regional and global diversification. Driessen and Laeven (2003) come to a similar result. According to their study, investors in developing countries – or more broadly formulated – in economic areas characterized by high country risk benefit most from international diversification.

Apart from the mentioned studies, an equally important research field deals with the question, whether investors are experienced enough to invest abroad. Bailey, Kumar and Ng (2007) tried to shed light on that question. According to their study, wealthier and experienced investors enjoy an informational advantage and experience good portfolio performance. The remaining group of market participants, often behaviorally biased investors, misuse foreign equity securities and experience poor portfolio per-

formance. Some investors only use foreign securities for speculation or try to improve their poor domestic portfolio performance. In this study, although existing, we do not refer to the last two groups of investors.

To summarize, not only early works by Solnik (1974) or Odier and Solnik (1993) proved significant positive effects of international diversification, even the most recent studies confirm this result. A number of the studies stress that policymakers will benefit, if they reduce barriers for foreign stock investments.

3. Case

In the following we describe a simple internationally diversified portfolio. We assume an investor who allocated his funds into MSCI stock market indices of 12 countries (investment locations) on the timeframe from 1992 to June 2012. Table 3 provides the weights of the allocation. World portfolio weights to be found in the literature are slightly different, as we either took averages, or rounded them to 5% in order to obtain a simple model.

Table 3: Structure of Case Portfolio

United States	20 %
Europe	15 %
China	10 %
Japan	10 %
Australia	10 %
United Kingdom	5 %
Canada	5 %
Switzerland	5 %
Brazil	5 %
Russia	5 %
India	5 %
HongKong	5 %
Sum	100 %

Source: authors' illustration

The weights given in Table 3 have been taken for the calculation of portfolio risk and return starting in 1992. Portfolio risk and return have been determined from the perspective of investors with different domiciles. Accordingly, their reference currencies are different: notation for Swiss investors in CHF, for euro area investors in EUR, for Chinese in CNY and for Russians in RUB. We calculated annual performance with monthly rebalancing and did not include wealth effects for consecutive years.

Table 4: Results for Different Reference Currencies (1995–2012)

	CHF – Investor		EUR – Investor		CNY – Investor		RUB – Investor	
	Portfolio							
	Return	Std. Dev.	Return	Std. Dev.	Return	Std. Dev.	Return	Std. Dev.
1995	-8.42%	2.76%	-2.90%	2.76%	0.25%	3.00%	28.05%	5.45%
1996	29.74%	2.49%	21.42%	3.54%	17.48%	1.92%	36.32%	2.14%
1997	16.39%	5.39%	20.73%	7.10%	7.02%	4.74%	11.03%	4.81%
1998	-16.54%	7.74%	-17.97%	9.39%	-12.88%	7.74%	96.79%	13.25%
1999	33.59%	4.10%	34.43%	5.45%	19.16%	3.86%	60.04%	5.27%
2000	-2.38%	4.91%	3.43%	4.72%	-11.14%	4.52%	-6.25%	4.56%
2001	-23.87%	6.90%	-21.38%	6.65%	-19.37%	5.80%	-12.06%	5.92%
2002	-23.26%	5.82%	-23.17%	5.36%	-11.58%	4.87%	-5.81%	4.92%
2003	14.48%	5.53%	9.23%	4.99%	28.42%	3.11%	20.83%	3.13%
2004	4.88%	2.87%	6.96%	2.27%	18.21%	3.47%	12.00%	2.90%
2005	30.19%	3.82%	28.61%	3.65%	12.75%	2.76%	18.12%	2.86%
2006	14.49%	3.38%	11.31%	3.16%	21.71%	3.06%	14.50%	2.65%
2007	19.42%	4.09%	15.71%	3.39%	19.81%	3.43%	17.79%	3.36%
2008	-69.84%	7.83%	-61.63%	6.41%	-84.32%	7.22%	-64.44%	6.24%
2009	26.08%	6.60%	27.06%	6.16%	45.09%	8.31%	49.55%	6.25%
2010	3.48%	5.02%	17.51%	3.30%	0.75%	5.47%	11.41%	4.01%
2011	-17.97%	4.47%	-11.88%	4.31%	-13.04%	6.29%	-9.08%	2.82%
2012	-7.60%	4.31%	-0.71%	4.30%	-22.11%	6.36%	-3.22%	1.49%
Average	1.27%	4.89%	3.15%	4.83%	0.90%	4.77%	15.31%	4.56%

Source: Calculated according to the data provided by Datastream

The results show that investment performance is heavily dependent on the home currency of the investor. The average return for the investigated period is around 0.90 % p. a. for the Chinese and 15.31 % p. a. for the Russian investor. The average return for a Swiss investor is close to the Chinese results, while a Euro investor's return is slightly higher. Despite these huge differences in portfolio return, the portfolio volatility is with around 4.7 % p. a., nearly the same for all investors in consideration. This fact can be understood as the strong and convincing implication on stable portfolio risk in international diversification.

We also see significant differences in annual results across currencies as well as across time. Signs of the yearly returns are similar for EUR and CHF, as well as for RUB and CNY.

Although all investors have invested according to the same weights in the same stock indices, the results are very different. This is purely caused by exchange rates. Russian investors "profited" from the fact that their currency depreciated substantially over the years, thus foreign investments have been very profitable in home currency terms. Chinese investors had to face the opposite situation and thus their investment performance was quite low. We have to emphasize that this is a nominal perspective. The devaluation of the RUB came along with high inflation rates in Russia, consequently, despite highest returns, investors have been punished by a decreasing purchasing power of their RUB income.

4. Interaction levels of the exchange rate dimension

Exchange rates have a multi-dimensional influence on the asset allocation decision. Of course, one of the most important decisions is on hedging exchange rate risk. On the other side, the hedging decision depends upon the reference currency of the investor. Furthermore, the exchange rate risk is also influencing the investment currency and the investment claim decisions. All these questions have to be answered depending on the individual situation of the investor, thus we claim that no universal asset management strategy covers individual investor needs.

4.1 Role of the reference currency

Knowing the numeraire of the investor is the basis for all succeeding decisions. If the investor follows a passive approach and allocates according to a classical e.g. world-capitalization based strategy, the structure of the international portfolio is not be influenced by the reference currency. At the same time the performance will depend on the reference currency, as we have described it in the case before.

If the investor follows an active management approach, knowing the reference currency is crucial for utilizing forecasts on future exchange rate changes, which enables to change the weights of currency investments. Therefore, in case of an active investor, the reference currency will likely influence the international asset allocation decision, too.

4.2 Decision on hedging exchange rate risks

From the corporate finance literature we know the differentiation of exchange rate risk in translation, transaction and economic exposure (Eiteman, Stonehill, Moffett, 2010; Madura, 2011). The concepts of transaction and economic exposure can be transferred to international asset management.

Transaction exposure captures the company's profitability risk caused by exchange rate changes on accounts receivables and payables. In case of investments, we expect coupon payments and repayment of the face value at known maturities. Classical methods of hedging transaction exposure claim that the use of financial instruments like forwards, futures or options is appropriate.

Economic exposure – in corporate finance – focuses more on changes in the competitive position of a firm caused by exchange rate changes. In case of investments, long-term payments without fixed maturities and future settlements to be received in local currency evoke economic exposure. Conventional methods of hedging economic exposure in corporate finance reveal that in these situations the use of financial instruments like forwards and futures is not appropriate. These positions require to be fulfilled at a certain date, whereas the future settlement to be received is unsure regarding payment date and amount. As a result, by using forwards or futures for hedging, the decision maker could potentially increase his risk rather than reducing it. On the other hand, options could be used, as there is no obligation to exercise them. However, as in corporate finance firms are advised to use strategic hedging instruments, in the field of investments we similarly advise same methods. In the following two subchapters we examine these approaches and take a look at the aspects of the investment currency – meaning the market strategy –, moreover on the financial claim – meaning the product strategy. Although this categorization in transaction and economic exposure guides us to identify the best hedging instrument to be chosen, the investor still faces the difficult question if and to which extent to hedge. This decision depends on his individual risk aversion and his ability to bear risks. This will also depend on his existing asset allocation and on the degree at which exchange rate risks are already diversified. Lastly, the hedging decision also depends on the exchange rate risk sensitivity of the instruments he is invested in, which will be discussed in the last subchapter.

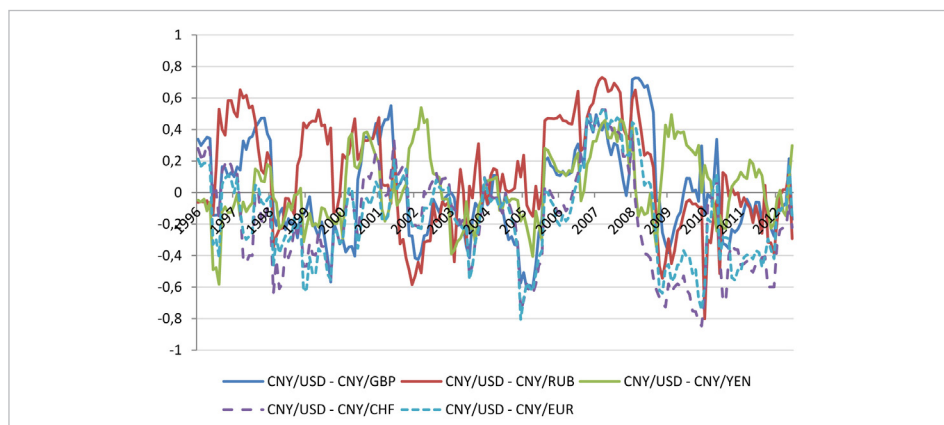
4.3 Role of the investment currency

Considering a pure passive management approach the investment currencies and their portfolio weights are given by the world market capitalization. In case of an active management approach the investor can concentrate his investments on specific currencies. Of course, an important condition for the active approach is the analysis and forecast of exchange rate changes.

On one hand the investor will try to invest in currencies appreciating in the future, as he will invest in stock markets, which he expects to increase in the future. Expected currency depreciations could be used to go short in these currencies.

On the other hand the investor will try to combine currencies that minimize portfolio risk. For this approach the investor uses his forecasts on correlations between currency pairs. Either he is mixing a low risk portfolio with the use of correlations right from the beginning, or at a later stage he tries to add risk-reducing currencies to his existing positions. In case he is able to identify the currency pairs with the lowest correlations, his choice will offer a lower portfolio risk than the volatility of a passively managing investor. Figure 5 depicts the correlation of currency pairs for CNY over time. Despite the high volatility of correlations a certain pattern arises. USD/CHF and USD/EUR exhibit mostly a lower correlation than USD/GBP, USD/YEN and USD/RUB. Let us assume a Chinese investor with an over weighted asset position in USD. If he wants to add new investments efficiently and reduce portfolio risk, he would prefer EUR- and CHF-investments, but not GBP-, YEN- or RUB-investments.

Figure 5: Correlation of Currency Pairs, 1998–2012



Source: Calculated according to the data provided by Datastream

4.4 Role of the investment claim

Depending on the investor's reference currency, his hedging decision and the chosen investment currencies he finally can decide on the investment claim. Different investment claims show different price sensitivity to exchange rate changes. This is the final exchange rate related choice of the investor.

The stock price in local currency is also reacting to exchange rate changes, as the competitive position of a company is likely to be influenced by the currency pair, consequently impacting the firm's cash inflows. Often the effect of exchange rate changes is weakened by a contrarian development of the stock price in local currency. If a Chinese investor is invested in the US where the currency depreciates, the investor is facing a decreasing value of CNY. Yet simultaneously, with the depreciation of the USD and a better competitive position of the US firm the stock price of the US firm is likely to increase, which consequently reduces or even compensates the overall negative effect for the Chinese investor. The absorbing exchange rate and stock price behavior acts as a buffer.

The bond price in local currency is reacting to changes in the local interest rate, but not directly to exchange rate changes. Even more important, the nominal value, repaid at maturity remains constant and is independent of exchange rate changes. As a result, the reference currency value of a foreign currency bond investment is very sensitive to exchange rate changes. This enables the use of foreign currency bonds as a leverage instrument for expected exchange rate changes. A Russian investor, expecting a revaluation of the EUR, could invest into a EUR bond and thus increase the value of his investment as soon as market changes meet his expectations. Compared with a stock investment, a bond investment acts more as a leverage instrument to take advantage from expected exchange rate changes.

5. Conclusion

Exchange rate risks have increased with the financial crisis. With this contribution we shed some light to the role of exchange rate risks for decision-making in international asset allocation. In order to cope with this increased risk we decompose the exchange rate dimension in four different interaction levels.

On the first level the investor's reference currency is the starting point for taking care of exchange rate risks in asset allocation. As the investment portfolio with many different currencies has to be valued from the viewpoint of one numeraire currency, two investors with a different numeraires but same international portfolio positions will likely be facing different changes of their wealth at the end of the period. Looking at investors favoring active management, their reference currency will play a role to find the optimal currency structure of the portfolio.

On a second level, the hedging decision has to be solved. Dependent on the type of future foreign currency cash flow streams either financial instruments or strategic instruments have to be utilized.

On a third level the investor has to decide on the investment currencies. Based on his numeraire the active investor will select currency positions according to the risk structure of the existing portfolio. Moreover, expected re- or devaluations of his home currency towards other currencies will be taken into account.

On a last level the investor has to decide on the asset claim to invest in. Because of the different sensitivity of home prices towards exchange rate changes, stocks and bonds cannot be judged equally. While stocks act as buffer to exchange rate risks, bonds work more as a leverage instrument for portfolio performance to exploit profit from exchange rate changes.

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Banking System in Russia: Problems and Perspectives

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This summary was written by M.Sc. Tim Wazynski.

The presentation of Prof. Dr. Nikitina was focused on the actual developments of the Russian banking system including impacts from the European financial crises. Introductory, she pointed out some important historical events. Furthermore she gave an overview of current problems and perspectives concerning the Russian banking system. In the past decades the Russian banking sector was characterized by a lot of reforms with tendency to reduce the high number of banks, because of competition problems. There are just a very few big banks and a plurality of small institutions. The Sberbank with 20,000 offices and about 250 billion US dollar in assets is still the largest financial institution in Russia. In contrast, almost 700 smaller banks have less than 100 million US dollar in assets. Some small banks (so-called “pocketbanks”) even serve the interests of only selected huge companies by e. g. granting risky credits. The global financial crisis and the euro financial crisis underlined those problems, because some private banks got into financial distress. The Russian government injected around 30 billion US dollar into banks to provide stability to its banking sector.

The amounts of loans and deposits declined during the crisis. Interest rates on deposits, for instance, went up to a record high of 14.4% in July 2009. Prof. Dr. Nikitina pointed out that credit volume and deposits slowly return back to the pre-crisis level, but there are still some development problems. For the consolidation of the Russian banking system it will be essential to reduce the number of banks; especially the existence of pocketbanks is disputable.

As one result of the crises the Russian central bank has increased step by step the capital requirements. On January 1, 2012 the required equity was raised in such a manner that some regional banks were not able to achieve them. This circumstance clarified the importance of further actions in order to reduce the number of uncompetitive banks.

Finally, Prof. Dr. Nikitina summarized some important aspects of the current Russian banking sector. A number of banks have to find a new business model. But, the market is dominated by some state-owned banks. Because of this structural situation there are a lot of banks with a very small market share in the financial service industry of Russia. Most of them are inefficient, yet. It is necessary to improve the competitive situation and to proceed with the consolidation of the Russian banking sector.

The Russian Securities Market: 20 Years of Development

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1. Introduction

Since its birth in 1992 the Russian securities market has become one of five leading emerging markets. 20 years is enough to evaluate the results of its development.¹

At its peak in 2008 the capitalization of Russian companies was US\$ 1.5 trln. In 2006–2007 the indicator “capitalization/GDP”, had reached the average level of mature markets, exceeding many of them. The Moscow Exchange MICEX-RTS for many years has been the largest stock exchange in Eastern and Central Europe.

However the Russian stock market retains its salient characteristics, being one of the most volatile in the world: during the recent global financial crisis the shrinkage of the capitalization was the most drastic among the major markets. In July 2012 the capitalization of the Russian market was still 1,5 times less than it was at the peak in 2008 (Table 1).

Other segments of the securities market in Russia are tiny compared with the mature markets. The size of the domestic corporate bonds market in Russia in relation to GDP is 13 times less than the world average. The figures of financial institutions’ assets relative to GDP are lower than world average for insurance companies 13 times, private pension funds – 38 times, investment funds – 43 times (2010).

2. Instruments

2.1 Stocks

The first joint stock companies in Russia (banks, investment companies and merchandise exchanges) were being set up in 1989–1991. Up to the end of 1992 the shares of these 3 groups of issuers were the only stocks, traded in Russia. In fact the volume of this market in terms of capitalization did not exceed \$ 100–200 mln.

The real stock market started to emerge in Russia in the end of 1992 as a result of a large scale voucher privatization program. Tens of thousands of former state enterprises were transformed into joint stock companies and privatized. Now (2011) there are formally 533,935 joint stock companies, including 73,593 Public Limited Companies (who can issue shares to the public).² However, a little more than 300 of them are really public companies with shares traded in the market.

The Russian model of privatization was at a first glance mass privatization in line with that in Czech Republic. But in fact it was executed with very strong privileges for in-

1 1992 is a threshold year, due to the start of mass privatization and creation of joint-stock companies. However, first elements of the market financial system started to emerge earlier – in the end of the 1980s.

2 SPARK.

siders – managers and employees. Hence although each person got his voucher, that formally could claim 150 millionths a part of the enterprises being privatized, from the very beginning the management and employees got the lion's share of stocks in the new corporations.

In 1995, 1996 and up to the fall 1997 the Russian stock market was growing very fast. In terms of growth it was acknowledged as one of the best in the world. By autumn 1997 the capitalization of the Russian market had been, according to some estimates, \$150 bln.. The first blow was made by the Asian crisis. By the end of July the capitalization had fallen to 40–50 bln. Then came August, 17 (when the government declared moratorium on domestic debt repayment) and the market was completely ruined. In September 1998 the capitalization of the whole Russian market with all its natural monopolies was worth only \$10–20 bln. (much less than capitalization of Coca-Cola). The RTS index (RTSI) demonstrated one of the most dramatic fall (15 times!) in the history of stock exchanges.³ The pre-crisis historical maximum of the index was 572.00 (10/6/1997), minimum – 38.00 (10/5/1995), see Figure 1.

In 1999 the Russian stock market again became one of the best – the second or third in terms of appreciation (in fact due to the previous steep fall). In 2000 irrespective of very good economic situation, irrespective of oil and gas prices on the world markets the market finished the year in the red. This demonstrated the link of the Russian market with the US market, especially NASDAQ. However, 2001 reversed this trend. While all developed stock markets were falling, the Russian demonstrated strong growth – nearly 60% each year in 2001 and 2002. In 2003 again the market had risen by nearly 60%. In October 2003 the market had overcome the pre-crisis maximum. The rally continued into 2004 until in April 2004 the steady retreat began – by August to the level of October 2003. However, 2005 proved to be one of the best years for the Russian equity market – 83% rise! Only a few countries (Saudi Arabia, Colombia, Kazakhstan) performed better. The rally continued into 2006. The RTSI exceeded 1500 points in February. Both 2006 and 2007 were finished with 70% market rise (in terms of RTSI). Up to May 2008 the Russian stock market was on the rise (fuelled by soaring oil prices), striking nearly 2500 points, when it started rapidly contracting – to less than 500 points in January 2009. That was again the largest fall among the 20 major markets of the world.

The capitalization of the Russian stock market had fallen from \$1500 bln. in May 2008 to \$300 bln. in January 2009.

High volatility is a salient feature of all emerging markets. The daily standard deviation of the RTS index was 4.8% in 1998, 1.3–1.4% in 2005 and 2007 and 4.2% in 2008.⁴ It is a shortcoming, because high volatility is attractive only for a limited number of specula-

3 One of the 2 major Russian indexes. It has been calculated since September 1995. Now based on dollar prices of 50 shares of largest companies.

4 Russian Economy in 2008. Trends and Perspectives, pp. 509–510.

tive investors. The largest – conservative – investors (pension funds, large investment funds, insurance companies, large banks) beware volatility.

One of the features of the Russian stock market in the past was its weak connection with the production process (the commonly used term in Russian literature is “the real sector”). The issuance of stocks in Russia had been done with different reasons, but without the main – to attract new funds for investments. First it was privatization – distribution of property. Later it became the issuance stemming from the bookkeeping needs – to re-evaluate the capital of the firm. Thus they had purely technical character. The first IPO on the **domestic** market was made only in 2002 by an information company RBC (now one of the leading business information providers).⁵ In 2003 one more domestic IPO took place by a drugstore company “36,6”. Since 2004 the number of issues had increased substantially. However, the amount of money thus mobilized was limited (\$13–14 mln. in 2002 and 2003, \$300 mln. in 2004 and 2005, \$1.5 bln. and \$14 bln. in 2006 and 2007), especially if compared with some other emerging markets – especially China and India. More money was raised through equity issuance on the foreign markets in the form of depository receipts – nearly 50 bln. through 2000–2007. The crisis damaged this “money accumulation mechanism” and in the second half of 2008 the issuance had abruptly stopped. Only one IPO was executed in 2009 – **OJSC HSCI (Human Stem Cells Institute)**.

In 2010 the situation changed for the better: 12 IPOs took place, among them “Rusal” (the aluminium giant), “Protek”, “Transcontainer”, “Mostotrest”, “Mail.ru”. In 2011–10, including “Yandex” (the most popular search machine at the Russian segment of the Internet), “Nomos-Bank”, “Fosagro”, “Rusagro”.

However, the money thus accumulated in many cases was used to buy-out business from their owners, to refinance debts and to service the M&A transactions. A. Abramov writes: “Only small part of money, mobilized on the stock market, transformed into real investments (new fixed capital), promoting economic growth”. According to his calculations even in the best year for IPO – 2007 – out of the \$33 bln., received from IPO and SPO, only \$3.6 bln. or 10.9%, were really used for investments.⁶

The features of the Russian stock market are typical for emerging markets. The ownership of Russian companies is concentrated in the hands of controlling shareholders. In most cases these are government or private persons/managers. The latter are not always interested in the appreciation of the stocks of their companies, being confident, that the minority shareholders will not be able to dismiss them. They are only interested in managing the financial flows in their own interest. Under the present ownership structure the controlling owners are not worried not paying dividends, or paying low dividends to the shareholders. Up to the beginning of the 2000s in Russia paying dividends was

⁵ The first IPO was made in 1996 by the Russian mobile operator Vimpelcom at the NYSE in the form of ADRs.

⁶ Russian Economy in 2008. Trends and Perspectives, pp. 520–521.

rather an exception, than a rule. The situation is changing for the better, but still the dividend payout ratio in Russia is low compared to most developed markets – 19% for the 10 largest public companies in 2006–2009.

The industry structure of the Russian stock market capitalization reflects one of the main deficiencies of the present Russian economy the predominance of extracting industry. Oil, gas and electricity production provide 58% of Russian capitalization and 3 sectors (metals and financials included) – 85%. The share of manufacturing industry is negligible – 1.4%.

The shares of Russian joint-stock companies are issued **only** in registered, dematerialized form with par value.

2.2 Debt securities

In the majority of countries of the world the debt securities market is predominantly a government debt market. Russia in the 1990s was no exception. However, in Russia this predominance took rather ugly form in the past, because up to 1999 the corporate bond market didn't exist at all (Table 2).

Treasuries

The Government debt market is represented mainly by the OFZ (Federal Debt Bonds – medium and long-term interest-bearing paper). The short-term bonds (GKO or t-bills) have not been issued since the beginning of the 2000s. Before the 1998 crisis GKO's comprised 60% of the whole government domestic debt market.

The OFZs are issued in book-entry form (although formally the global certificate is available) and traded through the trading system of MICEX stock exchange (now Moscow exchange MICEX-RTS).

The financial crisis of 1998 with the GKO-OFZ being in its epicenter, when the government had to declare moratorium on all operations with the public debt for 3 months, completely ruined the market.

The sluggish trading in GKO-OFZ had resumed in January 1999 on the secondary market. In 2000–2001 there were only a few new issues of OFZs and GKO's of very limited volumes.

In 2002–2003 the Treasury resumed more active borrowings in the domestic market. Only medium and long-term bonds (OFZ) were being issued.⁷ In fact thanks to very

⁷ Russian Ministry of Finance.

high oil prices the budget didn't need these borrowings. The issuance took place in order to create instruments for the Pension Fund of Russia and private pension funds to invest their assets in. The YTM of the OFZs was extremely low: 4–7% in 2005–2008 (with the rate of inflation never being less than 9%). Only in 2009 the yield had temporarily risen to 10–11%. By the beginning of 2012 the yield had declined to 6–8%.⁸ The economic crisis and fall of oil prices made it necessary for the government to increase borrowings in the domestic market. During 2011 the size of the domestic government debt had risen by 43%, although it is still very low (less than 10% of the GDP) as compared to public debt in the countries with the developed markets (ranging from 80 to 230% for the G7 countries).⁹

The main investors in government bonds are banks, The Pension Fund of Russia, private pension funds and insurance companies.

The second most important group of government debt securities is composed of the bonds denominated in foreign currency. Chronologically we should place first the so-called minfin bonds (domestic foreign exchange bonds – OVVZ, the product of the securitization of the foreign exchange debt of the government to state enterprises), first issued in May 1993; but recently they had been redeemed completely.

The largest part of the government external debt is represented by Eurobonds. The first issue took place in autumn 1996, when Russia got credit rating BB- from S&P. That time they were trading at 9–10% YTM. In autumn 1998 some issues were being traded at 17% par with the yield to maturity of 50–55%. In the beginning of 2012 they were being traded with the YTM 3–6%. Now there are several issues outstanding worth 29.2 bln. (December 2011) with the largest one being the restructured debt of the former Soviet Union and Russia to the private banks (The London Club) – approximately \$ 20 bln.¹⁰

Municipal bonds

Russia has 83 sub-federal territorial entities – oblast, krai, republic. Moscow and St.-Petersburg are also included in this list. Before 1998 almost all sub-federal territorial entities issued debt securities. Many defaulted, some even on Eurobonds (Nizhny Novgorod). Now the number of issuers is short with the largest being Moscow and St.-Petersburg. However, the market is tiny (\$ 13 bln. in dollar terms) compared to developed markets.¹¹

⁸ The information is available on the Bank of Russia website (www.cbr.ru).

⁹ World Economic Outlook.

¹⁰ Russian Ministry of Finance (A).

¹¹ In the US it is nearly 4000 bln.

Private notes and bills

It is a very special, even unique, part of the Russian securities market. The reasons for its existence are many. One of them – the deficiency of money. The financial depth (M2/GDP) of the Russian economy is low if compared with the developed and many developing countries. One of the causes was and still is the very restrictive policy of the central bank – in November 1998 the financial depth was 16–17 %, by the end of 1999 – 22–24 %, in 2007–2010 40–43 %. In the developed countries it ranges from 50 to 100, in the developing – from 40 to 60 % (184 % in China).¹²

The proliferation of the bills and notes market in Russia was to some degree the reaction to this situation. The private bills and notes were fulfilling the functions of a unit of exchange – the way it was done in the XIX century.

To some extent the notes are used as substitutes to corporate bonds. Since, according to Russian legislation, they are not regulated by the Securities Market Act, the issuance of notes and bills is less cumbersome than the issuance of corporate bonds.

The estimates of this market are very approximate (\$ 20–30 bln.) The promissory notes predominate.

Corporate bonds

The domestic corporate bonds market is one of the youngest in Russia. In fact it emerged in 1999. It is still small in terms of value of securities outstanding. However, the number of issues was growing rapidly from 2000 and even the crisis of 2008 didn't stop (although slowed) this process.

In 2001 the Russian companies accumulated through ruble bond issuance 0.9 bln. in dollar terms, 2.5 bln. in 2003, 9.6 bln. in 2005, 27.5 bln. in 2008, 29.4 bln. in 2009 and 27 bln. in 2010.

Simultaneously, by the Eurobonds issues the Russian companies got \$ 0,6 in 2001, 8.0 bln. in 2003 and 40 bln. in 2008. The crisis completely closed this market for the Russian companies. It began to recover only in the second half of 2010. In March 2012 the outstanding debt of international private bonds of Russian issuers was \$ 136 bln.¹³

3. Institutions

The Russian financial system refers to the bank-based type with the bank assets forming more than 90 % of the total financial institutions' assets (save the central bank), Table 3.

¹² International Financial Statistics.

¹³ BIS.

The assets of the institutional investors are still tiny, although all types of such institutions exist in Russia.

The insurance companies, being very large investors on the developed markets, play very modest role in Russia. One of the reasons is probably very low loss ratio of Russian insurance companies (60%), stemming from very low share of life insurance in received premiums. As distinct from insurance companies in the developed markets, who earn money mostly through investing premiums, the Russian companies live entirely on premiums.

The private pension funds are institutions set up by most viable Russian corporations.

The most active institutions on the securities market are investment funds (in Russia they are organized as unit-trusts, Russian abbreviation – PIF). Just in 2001, the PIFs net assets value was only \$200–300 mln. The situation began to change drastically in 2002 and especially in 2003–2005. In December 2012 the net assets were \$14 bln. (naturally it is a very small figure compared to the US 11622 bln., or China’s 339 bln.).¹⁴ The lion’s share of the Russian funds refers not to genuine collective investment schemes (of open-ended type) but to closed-end types (Table 3). They accumulate the money of small number of entities and in many cases are used as a tax-optimization vehicle.

Only tiny proportion of Russian population invests their savings in securities, preferring bank deposits. Since investors in shares and investment funds are often the same, we estimate the number of individual investors in Russia as 0.8–0.9 mln. That is only 0.6–0.7% of Russian population.

Professional intermediaries

Both banks and securities firms (broker/dealers) are trading in the securities markets in Russia.

In terms of capital and assets the Russian banks are still small institutions. Only the largest state-owned Sberbank (Saving Bank), Vneshtorgbank and Gazprombank are more or less comparable with average banks of the developed countries. But even Sberbank in 2011 had capital of only \$32 bln. and 319 bln. in assets.¹⁵ None of them is in the list of 25 largest in terms of capital. In 2012 there were less than 1000 credit institutions in Russia (2500 in 1996) and their number continues to decrease further.

The number of securities firms (in Russia usually called “investment companies”) has decreased even more – from 5000 in 1997 to 700 now. These are mostly small companies with the capital not exceeding \$0.5–1 mln.).

¹⁴ Investment Company Institute.

¹⁵ Industrial & Commercial Bank of China \$ bln 124 and 2000 respectively (2010).

Both banks and securities firms are heavily concentrated in Moscow and St.-Petersburg. Nearly 50% of banks are registered in Moscow. The share of deposits in Moscow banks is 57% out of the total, in St.-Petersburg banks – 7%.¹⁶

Trading systems

The first stock exchanges were formally set up in Russia in the end of 1991. These were Moscow International Stock Exchange and Moscow Central Stock Exchange. Both no more exist. In 1992 there were 120 w(!) organizations, having a stock exchange license.

Now 7 organizations have a formal license of stock exchange, to be more precise – the license of a stock exchange or the organizer of trading.

However, practically all trading in securities is executed nowadays at 1 exchange: Moscow Exchange MICEX RTS, formed in late 2011 through the merger of 2 major Russian exchanges. The former (MICEX) was the leader in the spot market for stocks, bonds and foreign exchange, the latter (RTS) – in derivatives trading.

Traditionally, the Central bank of Russia and state-controlled banks had a decisive say in managing MICEX. However, the influence of the state is decreasing step by step. In February 2013 the Moscow Exchange is planning to make an IPO with the further decrease of the role of the Central Bank.

The united exchange embraces all segments of the securities market: stocks, bonds (federal, municipal, corporate), financial derivatives, some commodities. Technologically the exchange is highly competitive. The merger of the 2 exchanges made it possible to speed up creating a national central securities depository (its absence was considered to be one of the main obstacles in the development of the Russian market and Moscow becoming an international financial center).¹⁷ In 2011 the exchange held the 18th place in the world in share turnover.

The regulatory system

Initially (in 1991–1996) the nascent securities market in Russia was regulated by different government bodies with the Ministry of Finance being the number one in terms of functions. It was empowered to license broker-dealers (non-banks), registered representatives, investment funds, stock exchanges, to register securities issuance by all issuers save banks. However, from the very beginning Ministry of Finance shared its powers with the Bank of Russia, who had in fact a monopoly on supervising and regulating all banking activities, including securities issuance and trading.

¹⁶ Bank of Russia (B).

¹⁷ In 2009 the Russian Government issued a program, designed to create an international financial center in Moscow. A special working group was created headed by the former chief of the President's administration A.Voloshin (for more details see: www.mfc-moscow.com).

The absence of a powerful central regulator, the rivalry between the existing regulators, the scandals with the pyramid companies in 1994 – all that made clear the need to change the regulatory framework.

After the Securities Market Act was adopted in 1996, such a regulator in the Russian securities market was set up – The Federal Commission on Securities Market (FCSM). In 2000 the FCSM completely acquired the authority to regulate the securities business of all financial institutions, whether they are banks or non-banks. In March 2004 within the framework of the administrative reform the Commission was transformed into Federal Financial Markets Service (FFMS).

The FFMS is organized in line with the US SEC, although it has no SECs powers to investigate, subpoena power or power to administer oaths.

The FFMS is empowered to file registration statements of all issuers in Russia, save banks (these are filed with the Bank of Russia), federal government, sub-federal territorial entities, municipalities and Bank of Russia (these are filed with the Ministry of Finance).

The Service is licensing different types of operations (activities) on the securities market – brokers, dealers, portfolio managers (including pension funds), organizers of trading (including stock exchanges), registrars, depository and clearing organizations. An institution having a banking license from the Bank of Russia, has to get a license of a broker, dealer or portfolio manager to operate on the securities market from the service. The Service is empowered to levy fines on the issuers and securities industry professionals, if they violate the provisions of the securities laws or decrees.

In spring 2012 the functions of the FFMS were expanded: it became responsible for the insurance industry (previously that was a domain of a special insurance supervisory service, subordinated to the Ministry of Finance).

On the whole, the existing acts on the securities business in Russia are now very detailed and in conformity with the similar acts that exist in the OECD countries. First of all we should mention the Joint Stock Companies Act, The Securities Market Act, The Investment Funds Act, The Mortgage Securities Act, Pension Funds Act, Act on Clearing, Insider Dealing Act.

The last of the aforementioned acts, adopted in 2010, was being developed more than 10 years. Precisely its absence was an impediment in acknowledging the Russian market to be sufficiently regulated. The Act had introduced the criminal liability for insider dealing and manipulation on the securities market, that being in conformity with the existing international norms.

4. Conclusion

Evaluating the results, achieved in constructing the Russian securities market, we can mention the following positive results:

The necessary trading infrastructure has been constructed, that is now quite effective and developed even in comparison with the most mature markets.

The professional intermediaries and their staff are sufficiently competitive and can effectively fulfil their functions.

The legislation is detailed and up to the best international standards (although some lacunas exist).

However, the market still doesn't solve the mega task of being the money-machine, financing gross fixed capital formation.

To change this situation, it is necessary to reach macroeconomic stability (first of all, to decrease inflation rate to at least 4–5%), to provide tax stimulus for long-term investing in stocks and bonds and promote the financial education of people, including the work on publishing educational and professional literature explaining the advantages.

Appendix

Table 1: The structure of the Russian securities market by instrument, US\$ bln, end of year

	1998-07	2002	2004	2005	2006	2007	2008	2009	2010	2011
Treasuries	72	18	27	29,6	39,0	50,9	48,3	60,8	80,7	110
Central bank bonds	–		0,5	3	4,0	4,2	0,4	3,7	19,4	0,3
Minfin bonds (US\$-denominated)	11	10	7	7,1	5,7	4,5	1,8	1,8	1,8	0
Eurobonds of the RF government	9	35	35	31,5	30,9	28,6	27,7	26,2	30,5	29,2
Domestic municipal bonds	4	1,5	4	5,4	7,3	9,0	9,2	13,9	15,1	13,5
Intern. municipal bonds	2	0,9	0,9	0,9	1,0	1,1	1,3	1,3	1,3	0,6
Domestic corporate bonds	–	1,4	9,5	17	35	51,1	61,6	83,5	96,7	106,7
Corporate Eurobonds	–	3	25	34	63,0	94,3	115	99	115	133,1
Private notes and bills*	15	15	> 20	20–30	20–30	20–30	20–30	20–30	20–30	20–30
CDs		2,1	3,7	2,1	2,0	2,2	1,2	0,7	0,9	0,8
<i>Memo: Stocks</i>	<i>50</i>	<i>115</i>	<i>247</i>	<i>531</i>	<i>966</i>	<i>1334</i>	<i>346</i>	<i>762</i>	<i>1001</i>	<i>855</i>

Source: Bank of Russia, Ministry of Finance, CBONDS

Table 2: The Russian financial institutions

	Number	Assets US\$ bln
Credit institutions (functioning)	978 (1.01.2012)	1246
Broker-dealers (securities firms)	≈700	n.a.
Insurance companies	594 (30.09.11)	37 (premiums collected 2011 est.)
Private pension funds	158 (09.2011)	21,1 (reserves)
Investment funds	1273 (12.2011)	13,8 (NAV)
Open-end and interval	515	3,2
Bank trust funds	274 (12.2011)	0,2
Management companies	456 (31.12.2011)	
Stock exchanges	4 (7 licences of a stock exchange or organizer of trading) (01.2012)	
Registers	40 (02.2012)	

Source: Bank of Russia, Ministry of Finance, NAUFOR, CBONDS, FFMS

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Quo Vadis Infrastructure Financing?

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List of Abbreviations

Basel II	Second Basel Accords issued by the Basel Committee on Banking Supervision
Basel III	Third Basel Accords issued by the Basel Committee on Banking Supervision
CRD	Capital Requirement Directive
CRD IV	Capital Requirement Directive IV
DSCR	Debt Service Cover Ratio
LCR	Liquidity Cover Ratio
LLCR	Loan Life Cover Ratio
NSFR	Net Stable Funding Ratio
PLCR	Project Life Cover Ratio

1. Introduction

At the beginning of the 21st century the financial industry is facing a significant change after the turmoil of the global financial crisis starting in 2007. The laws previously applicable were disrupted and the idea of borderless opportunities became a phenomenon of the past. While negative effects of the global financial crisis became less disastrous in 2009/2010 telltale signs of further baneful events became evident. The global financial crisis was replaced by the euro financial crisis in 2010.

When the global economy is driven by downside risk and banks as well as equity providers are facing tremendous write-offs and losses a growing community of investors can be identified, which supports the view that an investment decision solely based on upside potential can't be sustained. After 2007 asset classes like asset backed securities are considered to be obnoxious and out-of-favour. Investors became aware that other investments could provide a better risk-return profile than synthetic products which had been wrapped and rewrapped many times.

One of those down-to-earth asset classes are infrastructure investments. Those investments are predominantly directed towards projects in the energy or transport infrastructure sector, e.g. tall roads, seaports, airports, gas pipelines, gas storages, power plants, electricity networks etc. Nevertheless, also projects for construction and operation of schools, prisons and hospitals are considered to be public infrastructure. All Infrastructure assets have in common that they serve basic needs of a population. The flexibility of demand and price sensitivity is therefore less distinctive than in other product areas. As a consequence the attractive yield of an infrastructure investment is accompanied by a relatively low risk profile.

Nonetheless, also infrastructure investments faced a couple of challenges during the global financial crisis and the euro financial crisis. Focus of the following analysis is therefore the impact of the global financial crisis from 2007 till 2009 and the euro financial crisis in 2010 and 2011 on infrastructure debt investments. Furthermore we will dare an outlook on the chances and obstacles in the years to come.

2. The project finance market in 2006/2007

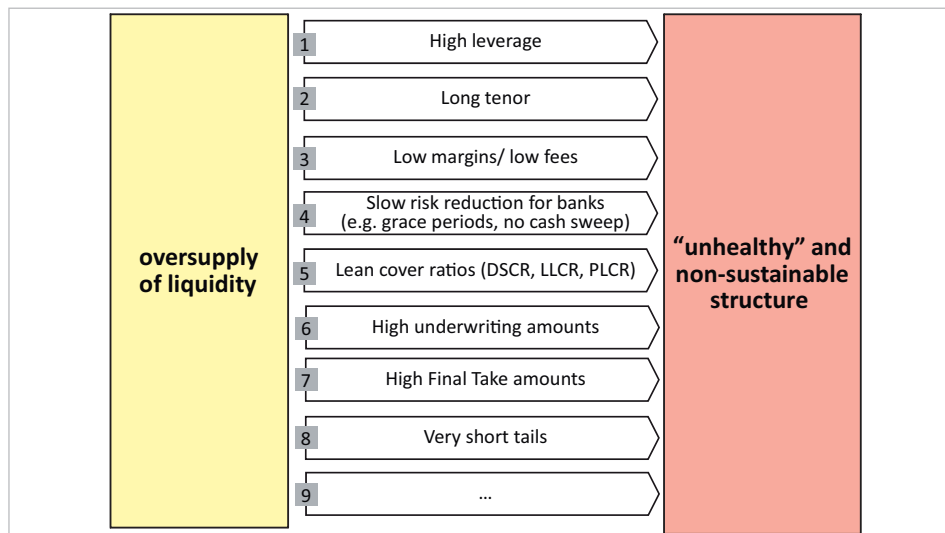
The infrastructure debt financing market or in other words the project finance market in 2006/2007 was characterised by a tremendous oversupply of liquidity. Too many banks were active in the market and chased few transactions. As a matter of a fact at that time the project finance market was a buyer's market. In a different way from other markets a buyer's market in project finance lead not just to a cheap pricing for the credit facilities, but as well to a borrower friendly structure of credit agreements.

The most important structural elements are in this respect the equity ratio, long tenors and lean cover ratios for project finance facilities. Regarding the proportion of debt and equity an equity ratio of 20% to 30% is more or less standard in most sectors. In 2006/2007 the equity ratio came down to 10% and below. With respect to the tenor a significant increase could be seen in 2006/2007. The term of the facilities went up to more than 30 years for some projects. In addition cover ratios like Debt Service Cover Ratio (DSCR), Loan Life Cover Ratio (LLCR) and Project Life Cover Ratio (PLCR) became insufficiently lean. To set an example, it is unlikely that lenders are willing to accept a minimum DSCR below 1.2 times under normal market conditions for a power generation project with a standard risk profile in Western Europe. In 2006/2007 the minimum DSCR for such projects came down to 1.1 times and below.

While those “aggressive” structures are in favour of the borrower they put the banks at a disadvantage. Such lean credit structures do not reflect the risk implied sufficiently. An equity ratio of 10% and below can be considered as inadequate for protection against a principal agent conflict. The sponsor of a project has not enough “hurt money in the game”. As soon as any deviation from flatness (i.e. a deviation from the banking case) occurs, the sponsor is tempted to step back from the project. To lose the amount already invested could be by far less than providing over and over supplementary financial assistance in form of equity injections. Regarding the tenor can be stated – the longer the tenor the higher the probability of any cash flow variances. In addition lean cover ratios are just another word for small buffers until an event of default for the repayment of debt can occur.

Figure 1 below provides a couple of additional structural elements which could widely be seen in 2006/2007 before the global financial crisis stopped unsustainably structured transactions.

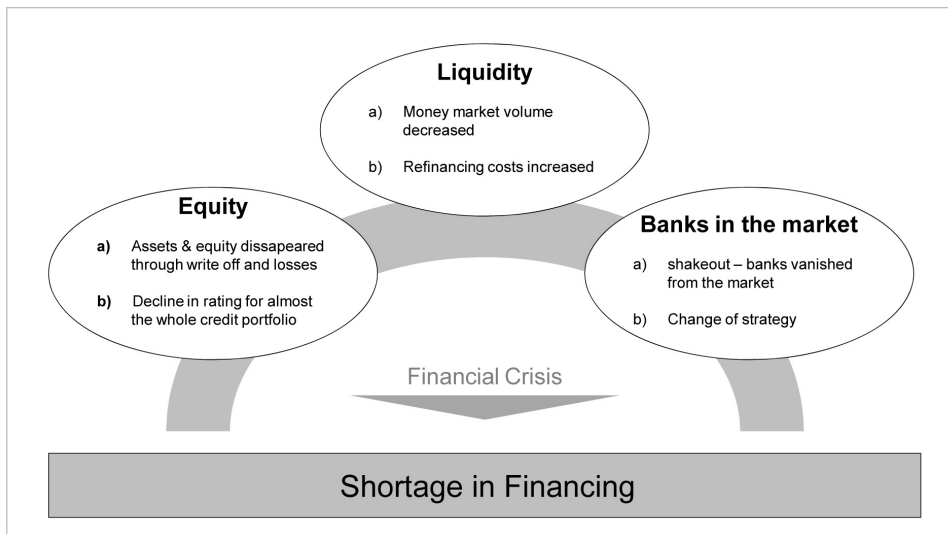
Figure 1: Project finance market in 2006/2007



3. Areas affected by the global financial crisis

The global financial crisis had its seeds in the United States of America. Retail banks were willing to provide home loan financings to private customers which lived beyond their means. Market participants joined the game expecting an ever increasing price for private real estate. The outstanding accounts were securitised and sold predominantly to American and European banks. The pitcher went often to the well, but was broken at last. The market collapsed as the prices for private real estate decreased and the vast majority of borrowers were not able to repay their loans.

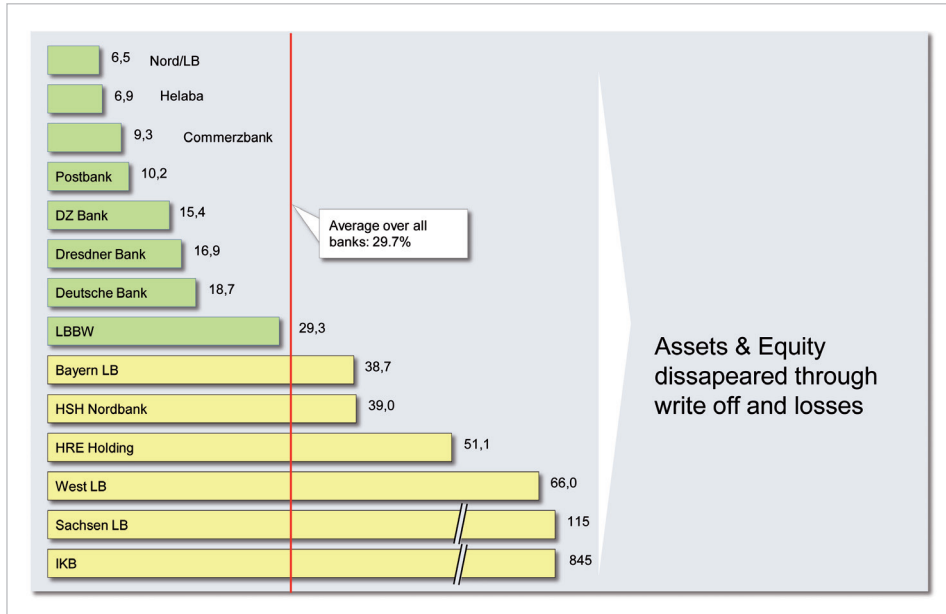
Figure 2: Effects of the global financial crisis



The effect on the financial markets was disastrous on a global basis. Assets and equity of banks disappeared through write off and losses. Additionally the quality of credit portfolios of nearly all banks suffered. This led to a decline in rating of almost the whole credit portfolio with increasing equity requirements due to Basel II. The liquidity was significantly shortened. Money market volume was reduced and syndication vanished from the market. Furthermore the number of lenders in infrastructure financing decreased severely. Banks stepped out of the market, some due to shakeouts others due to a change in strategy.

In summary the whole market was hallmarked by a shortage in liquidity. Too many projects chased narrow liquidity.

Figure 3: Write offs in percent of banks equity (June 2007 to September 2008)



Source: "Deutschland-Bericht" International Monetary Fund (IMF), No 09/15, January 2009

Anyway has to be stated that the situation described above did not put all banks at a disadvantage in project finance. Banks still active in lending during the financial crisis faced a sellers' market. Due to an excess demand for liquidity they were able to achieve a higher margin accompanied by bank friendly structures. This led to higher returns on equity and a lower risk profile of the facilities. In addition they were able to focus on reputable transactions with a perfect match to their skills and risk appetite.

In other words, although most banks suffered during the global financial crisis, winners could be seen in the market. Those banks which were still able to provide debt facilities to infrastructure projects could boost their business and increase their return on equity. They were the winners of the global financial crisis.

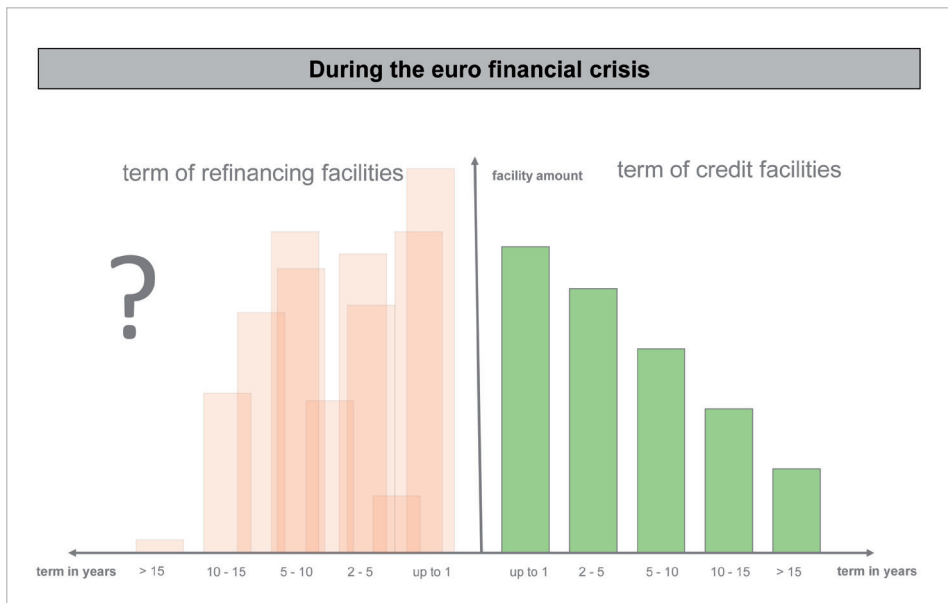
4. Areas affected by the euro financial crisis

It is a widely held belief that the global financial crisis and the euro financial crisis had a similar effect on the market. Although this is true to a certain degree the most critical point during the euro financial crisis was liquidity in the market, more precisely the price for liquidity.

Before the global financial crisis banks were able to achieve both short term and long term funding. Although terms for credit facilities on the left side of the balance sheet, were longer than terms for refinancing facilities on the right side of the balance sheet the need for term transformation was limited. For a credit facility with a tenor of about 15 years it was necessary to achieve a refinancing just two to four times. The need for term transformation increased during the global financial crisis significantly. To provide a credit facility with a tenor of about 15 years it was required to achieve a refinancing up to 15 times. Most of the banks therefore stopped lending with a term of more than five years. Such a market environment is not a good starting point for long term lending because the risk of term transformation is huge. Nonetheless, even under such market conditions long term lending can be achieved. As long as the funding costs are stable it is possible to calculate the risk premium required to bare the risk of term transformation. But as soon as the refinancing costs – as illustrated in Figure 4 – start to get highly volatile it becomes more and more difficult to forecast the risk premium for term transformation.

During the euro financial crisis market forecast was highly dependent on political discussions and decisions. Those discussions and decisions were inconstant, unpredictable and lobby-driven. It is therefore fair to say that the uncertainty during the euro financial crisis jeopardised long term lending. Lenders were unable to calculate risk premiums for term transformation due to ongoing and never-ending political discussions.

Figure 4: Term of credit facilities and refinancing facilities during the euro financial crisis



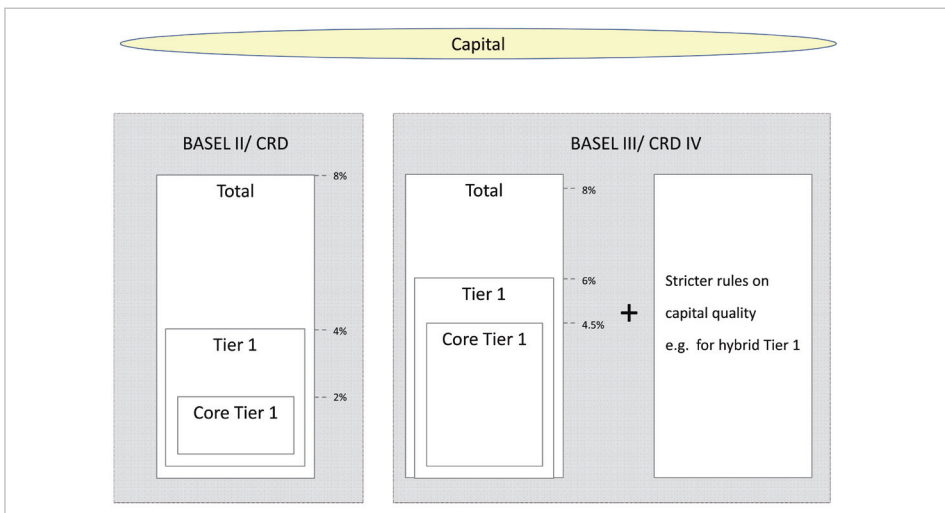
5. Basel III and the consequences for infrastructure financing

Not only could a negative shift of the market have a tremendous impact on infrastructure financing. Also regulatory requirements could bare supporting or freezing elements for project financing. One example of a regulation with a significant impact on infrastructure financing is Basel III. That supervisory regulation is directed towards the invigoration of banks and the financial system as a response to the financial crisis. It tries to achieve this goal by increasing quality and quantity of regulatory capital, by implementing a leverage ratio and by setting up rules for short and medium term liquidity. It has to be stated that Basel III is not a directly binding act. It is a global regulatory standard which has been worked out by Basel Committee on Banking Supervision. Basel III has been enacted in the European Union by the Capital Requirement Directive IV (CRD IV).

In comparison to Basel II the new regulation Basel III, which will be implemented in the European Union from January 2013 onwards, requires the same percentage of regulatory equity capital (8% of the risk weighted credit exposure), but a higher proportion of Tier 1 and Core Tier 1 capital. Details of composition and level of required capital can be seen in Figure 5 below.

In addition to 8% minimum equity capital Basel III requires further buffers: A capital conservation buffer, an analytical buffer and a systemic buffer. The total minimum capital including the additional buffer can sum up to a percentage of 12% to 16%. In comparison to 8% in the past the new regulation will therefore lead to a severe increase of required regulatory equity capital.

Figure 5: Required regulatory capital according to Basel II and Basel III



Furthermore, Basel III will restrict the overall leverage ratio to 3%. The respective ratio will be calculated as follows:

$$\text{Leverage ratio} = \frac{\text{Tier 1 capital}}{\text{Total exposure}} \geq 3\%$$

It is necessary to emphasize that the total exposure within the above mentioned formula is not risk weighted. The individual ratings of transactions or credit facilities have therefore no impact on the maximum total exposure.

In addition to the capital requirements above Basel III implements for the first time regulations which are directed towards liquidity – the Liquidity Cover Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The LCR should ensure that any bank is able to stand a stress scenario for a period of 30 days. It is calculated with the following formula:

$$\text{LCR} = \frac{\text{High Quality Liquid Assets}}{\text{Total net liquidity outflows over 30 – day time period}} \geq 100\%$$

The NSFR will be calculated as follows:

$$\text{NSFR} = \frac{\text{Available stable funding}}{\text{Required stable funding}} \geq 100\%$$

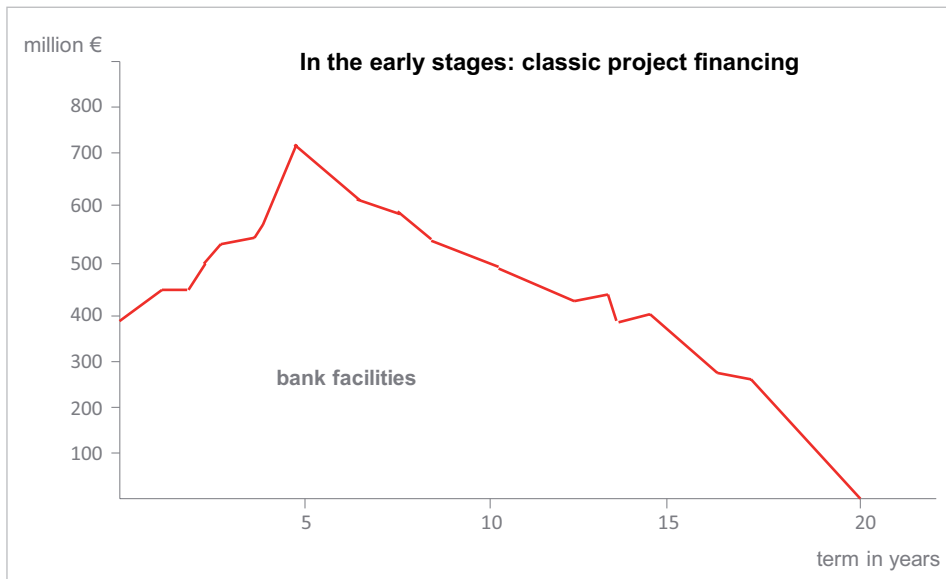
The above mentioned NSFR is somewhat problematic, because there are two ways to comply with the legal requirements of the NSFR: (i) longer term of the refinancing facilities and/or (ii) shorter tenor of the credit facilities. In the cold light of day it is more than unlikely that banks will extend the tenor of their refinancing facilities. Refinancing facilities of 10 years and more are hard to find and – if available – costly. While the regulatory authorities intended to increase the term of the refinancing facilities it is more likely that the banks will alter their asset profile rather than their refinancing profile. The trouble is that shorter credit facilities will leave the refinancing risk with the borrower.

In summary Basel III penalises long term lending. At the end of the day borrowers will be confronted with a higher margin while banks will lose a part of their term transformation gratification.

6. Outlook – Where do we go from here?

Ever since project finance is used for infrastructure financing one phrase appears to describe the market development in the best way: “Nothing endures but change.”¹ During the time of project finance commencement the whole debt amount was normally supplied via bank facilities (cf. Figure 6). Only a limited number of transactions could be structured by on project finance bonds.²

Figure 6: Disbursement and installment profile of classic project financings



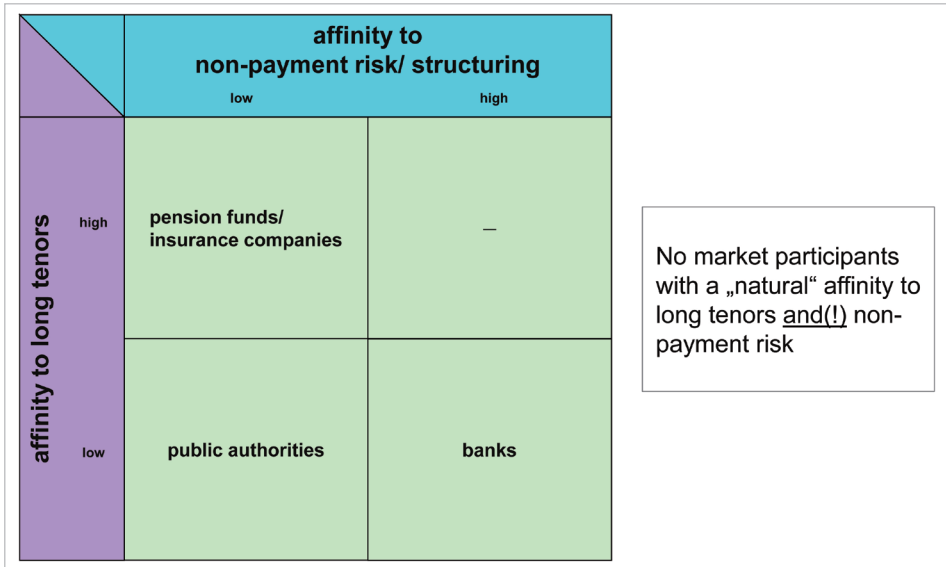
Even though banks were able and willing to provide long term financings they are not a “natural partner” for long term facilities. Based on their skills and knowledge they are qualified to structure a project finance transaction. However they dislike a high risk of term transformation which occurs within the frame long term lending. Additionally, regulatory requirements cast long term financing into doubt.

Regarding the tenor of infrastructure financings pension funds and insurance companies would be a “natural partner”. But these market participants miss the respective knowledge to structure a project finance transaction.

1 Heraclitus of Ephesus, (535 BC – 475 BC).

2 See Brodehser, P.: “Internationale Projektfinanzierung: Strukturen und Instrumente der Bankintermediation” (2012), pp. 212ff.

Figure 7: Affinity matrix

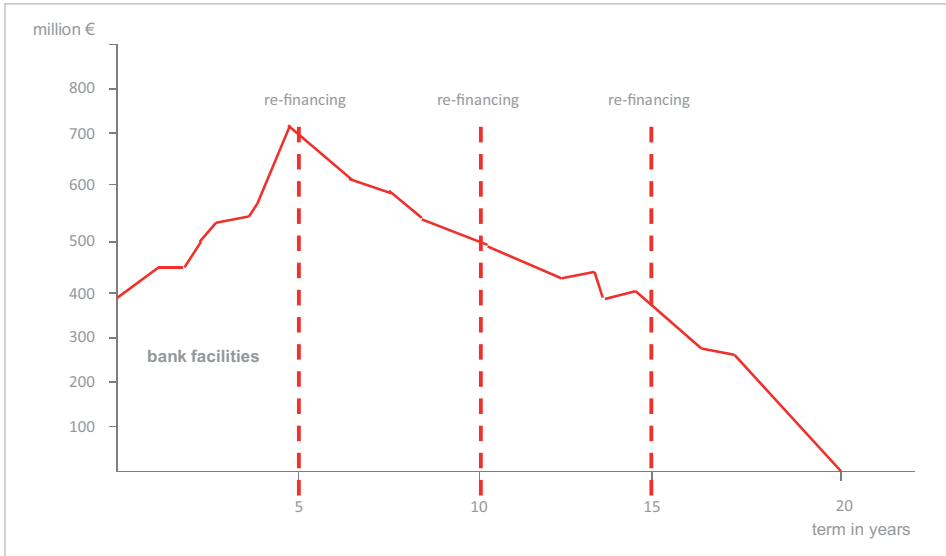


Source: Heathcote, C. (2010), p. 15

The gap illustrated in Figure 7 can partially be closed by project finance bonds. The banks will undertake the task of structuring the transaction. Subsequently the loan receivables are securitised and sold to institutional investors. Nevertheless, the sole use of bonds is limited to special sectors, countries and stages of projects.³ Another solution is using mini perm financings (cf. Figure 8). Mini perm structure is just another word for splitting the tenor of the credit facilities up. For instance the lenders provide facilities with a tenor of five years. After five years the borrower is obliged to refinance the facilities. However, it has to be mentioned that the borrower has to bare the refinancing risk. A refinancing can lead to higher margins and a borrower unfriendly structure after refinancing has been achieved.

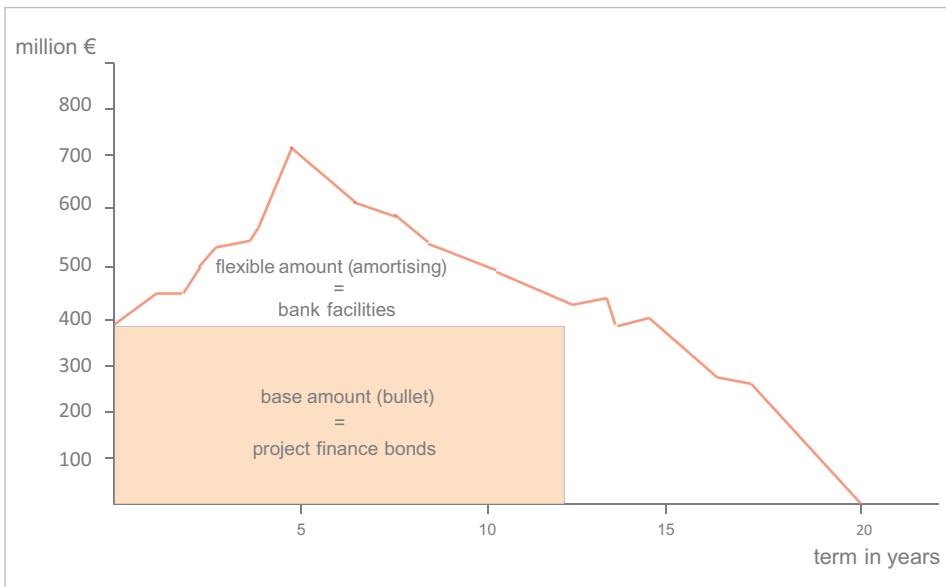
3 See Brodehser, P.: "Internationale Projektfinanzierung: Strukturen und Instrumente der Bankintermediation" (2012), pp. 212ff.

Figure 8: Mini perm structure



A further solution is the combination of bank facilities and bonds as illustrated in Figure 9. By embedding project finance bonds in a transaction at least a part of the long term financing can be handed over to institutional investors. Nevertheless, a significant proportion of long term lending remains with the banks.

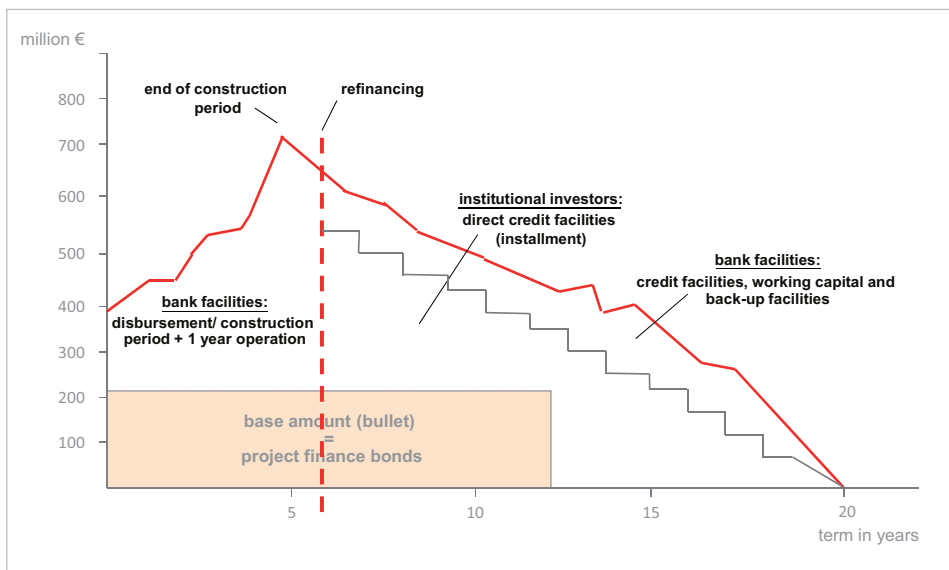
Figure 9: Embedding of project finance bonds



A potential structure to combine the strengths of each market participant is illustrated in Figure 10. A base amount is born by project finance bonds from the very first. The remainder during construction will be financed via bank facilities. Those bank facilities will have a higher pricing than project finance bonds. But in the same manner bank facilities are able to provide ex post any flexibility needed, e.g. amendment of disbursement profile, amendment of credit amount etc.

After the construction phase is successfully completed and one year of operation has been performed the assets are supposed to be “stabilised”. A major part of the long term lending can now be handed over to institutional investors. They can – as a “natural partner” – contribute to the financing as a long term lender. On top of that banks can offer additional credit facilities in the form of term loans, working capital or backup facilities etc. In doing so, banks can contribute with their know-how to transactions while leaving long term lending to institutional investors.

Figure 10: Additional direct participation of institutional investors



But for all that, there are some obstacles to overcome to get institutional investors involved. First of all there is a lack of experience and human resources to perform a project finance transaction. Assembling a team of infrastructure professionals could be time intensive and costly. Even if a team is already implemented it will need a couple of months until an institutional investor is introduced onto the market as a project finance lender.

Furthermore there are some regulatory burdens. In some jurisdictions regulations on lending require a banking license, e.g. in Germany. It is either required to apply for an own banking license or to be “fronted” by another project finance lenders. Moreover

regulations in future in the insurance industry could disadvantage or even ban direct infrastructure lending (e. g. via solvency II).

In addition the volatility of greenfield projects and accounting variance during the construction period are not easy to handle for a newcomer in the project finance market.

In summary banks are still a notch above other market participants in managing project finance and infrastructure finance risk, especially during construction and disbursement. But non-volatile assets after a successful completion of construction can be handed over predominantly to institutional investors.

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Banking Regulation in the US and Basel III

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List of Abbreviations

AIG	American International Group, Inc.
BIS	Bank for International Settlements
C-Banker	Commercial Banker
C-banking	Commercial Banking
CDS	Credit Default Swap
CEO	Chief Executive Officer
CFTC	Commodity Futures Trading Commission
Eq. % of Assets	Equity as a percentage of Assets
FDIC	Federal Deposit Insurance Corporation
FDR	Franklin Delano Roosevelt
FHC	Financial Holding Company
GLBA	Graham-Leach-Bliley-Act
GSA	Glass-Steagall-Act
I-Banker	Investment Banker
I-banking	Investment Banking
O & D	Originate & Distribute
OCC	Office of the Controller of the Currency
OTC	Over The Counter
ROE	Return on Equity
r/w	risk-weighted
SEC	Security Exchange Commission
SIFI	Systemically Important Financial Institution
SPE	Special Purpose Enterprise
USA/ U.S.	United States of America
VaR	Value at Risk

1. Introduction

The inclusion of the regulatory elements, which the US-financial industry will have to absorb, will have an impact on the financial world as a whole. Therefore, I think it is appropriate to bring them into the discussion of this workshop on the Euro-crisis.

With this said, I would like to add that I will highlight the key political measurements put in place/ announced/ contemplated after input in form of comments and recommendations offered by bankers, lobbyists, academia and others. I will also make an attempt to put them into a historical perspective. And I will not be shy to be critical about these changes imposed on the US-American banking industry by asking the simple question whether the new rules of the game will:

- Immunize the banking system against a disaster like the one experienced in 2008?
- Even better, avoid banking crashes that require taxpayer money to save the entire economy?

In this context, I have to mention that my research has been focused on the large globally operating banks headquartered in the Western World; primarily the ones now defined as “too-big-to-fail” institutions.

2. Banking crises/regulation – some history

Looking back, the regulatory changes made in 1999 by the US authorities, the abolishment of the Glass-Steagall-Act, led not only the US – but all Western economies into the crisis of 2008, according to not only my research. And it is hard to believe that we all still suffer from it with four years into it. A common opinion has been that the disaster is (almost) as bad as the banking crisis of 1933 was and followed by the Great Depression. Quite a number of similarities of the two “events” can be brought up. However, more importantly, then and now as a consequence of the created disaster the banking laws and regulations were changed.

When contemplating the amendments to the banking regulations made in 1933/34, one has to concur that they were drastic: GSA was signed into law by FDR. It was the end of the “Universal Banking-System” in the USA. All financial institutions had to adjust their business model, better said it had to be radically altered. The subsequent split of investment banking and commercial banking resulted in 65-years of quite stable and sound banking institutions in the U.S.

In 1999, all this was changed back with the Graham-Leach-Bliley-Act disrespecting the “past experiences” of the pre-GSA era in the U.S. And only 10 years later, we are back into deep crisis mode. The impact of GLBA on European Universal banks was a para-

digm shift towards I-banking and away from their stalwart, the lending business. Their objective was to become competitive with the US-C- and I-Banks on an international basis although they “entered the game” with a significant disadvantage. Their balance sheets were much higher leveraged than the competition they desired to take on. Furthermore, the securities markets in the US were better developed, much bigger and more liquid than the European ones. It is an important factor, bearing in mind that the prime role of I-banking has been the trading side of the business equation.

As an example, Deutsche Bank used to be seen as a lending institution for all these years. Today, it calls itself a “GLOBAL INVESTMENT BANK”. With it came that management changes were made in favor of I-bankers who introduced a strict trading mentality. Short-term profit focus and with it the publication of ROE-targets were applied as main management tools to justify incentive compensation packages for senior management. And this applies to all Western European banks now playing on this field. This raises the question whether the present re-shuffle of regulations will have the same “fruitful” impact on the banking industry as the GSA before? And therefore, will it lead to a much more stable banking industry in order to diminish the fallout of such disasters? Or even better, will we avoid banking industry missteps altogether and protect taxpayers’ money?

3. New rules and regulations for US banking

According to the Senate Committee on Banking, Housing, and Urban Affairs, the law was written under the Summary headline: “*Create a Sound Economic Foundation to Grow Jobs, Protect Consumers, Rein in Wall Street, End Too Big to Fail, Prevent Another Financial Crisis.*”

It is hailed as the most comprehensive financial regulatory reform measures taken since the Great Depression and is called “The Dodd-Frank Wall Street Reform and Consumer Protection ACT”.

In the following, I will categorize the key measurements taken in an attempt to highlight strengths and weaknesses of them.¹

¹ See Attachment: Regulatory Measurements taken/to be taken.

Table 1: Restoring American Financial Stability

Key features of legislation	Addressing:
1. Addressing Systemic Risks/ Advanced Warning System	• Organizational issues
2. Bank Supervision/ -Regulation	} • Idiosyncrasies of last crisis
3. Securitization	
4. Transparency & Accountability for Derivatives	
5. Hedge Funds/ Insurance	
6. Executive Compensation & Corporate Governance	
7. End Too Big to Fail Bailouts/ Bailout by Taxpayers	• The Future of Banking

Organizational Issues, referring to item 1. of Table 1

Members of the newly established Financial Stability Oversight Council will be political appointees. Their duties have been defined as collect information, provide direction, support the work of the council, monitor the financial services market, facilitate information sharing, recommend actions, suggest general supervisory priorities and provide a forum for discussion, among others. From this could be taken that it easily could become a forum with little effectiveness.

Idiosyncrasies, referring to items 2. and 6. of Table 1

When evaluating the key features of legislation, the BIS-working paper +51, titled “*The financial turmoil of 2007-?; a preliminary assessment and some policy considerations*”, written by Claudio Borio, came to mind.² In March 2008, Borio obviously did not (yet) foresee the devastating banking crisis that followed with the bankruptcy of Lehman in September of the same year. At that time, he used the word “turmoil”, describing what went on in the banking industry: a temporary adjustment to the “new” financial markets”. He called the elements of this new market “idiosyncrasies”. These bank product innovations were structured credit products; dominantly securitization, credit risk transfer instruments; primarily credit default swaps, a business model switch from B&H to O&D; by extended use of the syndication markets. I would add to the list the “(bad) business behavior” of the Credit Rating Agencies as well as the breathtaking growth of the Hedge Fund Industry and the Private Equity Industry.

Running the idiosyncrasies list against the above stated key measurements to bring back stability of the US banking system, I conclude that the politicians’ efforts were motivated by “showing action” against what was new and peculiar in the financial world rather than looking at the US banking industry comprehensively and taking, -in addition thereto-, historical experiences into account. Claudio Borio, already then, ended his paper with the comment: “... *these idiosyncratic elements, prominent as they are, should not blind us to the more fundamental nature of the turmoil and the factors behind it.*”³

² Borio, C. (2008).

³ Borio, C. (2008), *op. cit.*

In my words, what has been legislating is an attempt to cure symptoms of the past crisis rather than address the causes!

Overhaul existing Agency Oversight System⁴

At own admission, the legislator has stated that *“Today, we have a convoluted system of bank regulators created by historical accident”*.⁵ *“(R)egulation (was) riddled with dangerous loopholes ...”*.

I would add due to the fact that GSA was abolished without alignment of the supervisory regulations. The objective is to put in place *“...clear lines of responsibility, reduce arbitrage, and improve consistency and accountability”*.⁶

Fact is that Fed, FDIC, OCC and SEC remain unchanged in place as independent agencies.

Capital Standards

The capital standards presently in place (*5.5 % of assets*) constitute the floor of capital required. Furthermore, a *15 to 1 leverage* can be imposed on US banks to mitigate great threat to the financial system. My remarks on Basel III will complement this US-specific rule.

Securitization Reform

The key features of the reform have been the amendment of registration, disclosure, and reporting requirements for asset-backed securities and other structured finance products as well as the amendment of safe harbor rule; requiring financial institutions to retain more of the credit risk from securitization. Furthermore, revision of accounting rules relating to sales of financial assets and consolidation of certain off-balance sheet entities were included.

Together with the ever-increasing importance of the loan syndication market, securitization transactions involving different asset classes have become the financial institutions' tool to execute on the O&D business model, that I-banks invented. Again, regulatory authorities did not have the foresightedness upon abolishment of GSA to anticipate that the market entrance of large C-banks securitization volume will result in increased deal flow attracting unsophisticated investors lacking the knowledge of and the experience with these risky instruments. The Credit Rating Agencies with their misguided business model have to be seen as major culprit in the matter.

⁴ See Table 1.

⁵ Senate Committee on Bank and Urban Affairs; Chairman Chris Dodd (D-CT); Summary: Restoring American Financial Stability; p. 5; Contact: Kirstin Brost; 2010.

⁶ Chris Dodd 2010, *op. cit.*

Derivatives Issue

Again, credit risk transfer as core business concept has been adopted by C-banks when entering into the competition with I-banks. Furthermore, the Basel II risk weighting schemata opened the door for regulatory arbitrage. The tools used, like for instance individual and index CDS, were private and unregulated without exchange trading and central clearing; i.e. over-the-counter. The introduction of “*Higher Standard of Conduct*” for swap market participants clearly indicates what the market’s features used to be, i.e. freewheeling without transparency.

Hedge Funds / Insurance / Credit Rating Agencies

When citing the committee’s reason for regulating now the Hedge Fund Industry:

“Hedge funds are responsible for huge transfers of capital and risk, but (some) operate outside the framework of the financial regulatory system, even as they have become increasingly interwoven with the rest of the country’s financial markets”, it demonstrates how leisurely the financial business post GSA was approached by the supervisory authorities.⁷ The rules are meant to “end the shadow financial system” that was allowed to create itself over the period of time.

Concerning the Insurance Industry, the regulators were blindsided by the insurers when they became some of the largest CDS-writers (AIG), expanding their product portfolio to the credit markets.

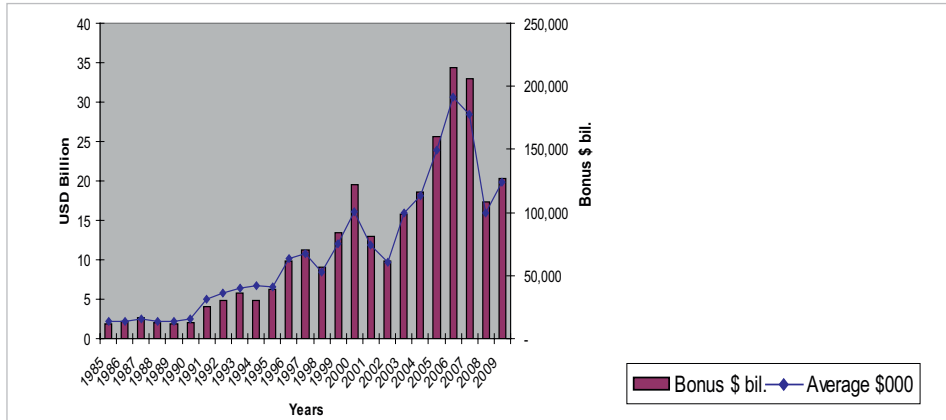
The Credit Rating Agencies, in the eyes of the Government, were meant to “... (to) warn people about risks hidden throughout layers of complex structures”.⁸ However, it was ignored that the parties for which they rated the securities also paid the rating agencies. In my eyes, it is the incarnation of a moral hazard-case.

⁷ Chris Dodd 2010, *op. cit.*

⁸ Chris Dodd 2010, *op. cit.*

Executive Compensation & Corporate Governance

Table 3: Wall Street Bonuses



Source: based on data from <http://www.scribd.com/doc/30789728/Wall-Street-Bonus-Chart-2009>, New York City Securities Industry Bonus Pools

Post GSA, the compensation packages in the financial industry have grown significantly. The bonus pools of the banks grew from USD 9.8 billion in 2002 to USD 33 billion in 2006. These amounts compare to an average of approx. USD 5 to 6 billion for the 10 years from 1989 to 1999. These amounts and the fact that bankers were held responsible for the financial crisis of 2008 that caused job losses and business closings resulted in an outcry of disgust among the broad population. Like Robert Skidelsky, referring to John Maynard Keynes in his recent book, stated that: *“Popular anger is largely directed against rewarding what is seen as doing harm: bankers who bankrupt their institutions....”*⁹ Thus the politicians reacted by accusing Wall Street that it *“...has developed an out of control system of out of this world bonuses that rewards short term profits over the long term health and security of their firms.”*¹⁰

As consequence, the Government introduced new “rules”.

The first question I would want to raise is, whether in a “free enterprise economic system” the Government’s involvement in individual stockholder-owned companies should be extended to decisions on the pay of the firms’ executives. Thereafter, I would ask what the respective Boards of Directors’ function is when allowing the payout of such sums of compensation and doing so by jeopardizing the existence of the company; they are on a fiduciary basis responsible for. They cannot act in the best interest of the owners of the company, which is what I conclude. Against this background, the new rules give shareholders a non-binding vote on executive pay that can be ignored by the Board!

⁹ See Robert Skidelsky; Keynes – The Return of the Master -; pp. 147 ff.; 2009.

¹⁰ Chris Dodd 2010, *op. cit.*

I suggest, with the rethinking of the “Agency Theory”, as rekindled by Roger L. Martin’s recent book, titled: *“Fixing the Game”*, there is an opportunity for academia to address the executive pay issue.¹¹ Incentive compensation of the Board does NOT align the principals’ interest with the agents’ (=Boards) interest. For me, it looks like a case of “Moral Hazard”.

Concluding Remarks to “Idiosyncrasies”:

In all cases, I view the regulatory measurements now implemented as just coming clean with the past. And therefore, I would add that they are not the path-breaking regulatory tools to avoid potentially future mishaps in banking.

The Future of Banking, referring to item 7. of Table 1

Now, let me please turn to the key measurement of the new US regulation package which I like to address today. According to the Government, the objective of this part of the legislation has been:

“Preventing another crisis where American taxpayers are forced to bail out financial firms requires strengthening big financial companies to better withstand stress, putting a price on excessive growth or complexity that poses risks to the financial system, and creating a way to shutdown big financial firms that fail without threatening the economy.”¹²

There is the attempt to limit the size of firms in order to avoid that they get “too big to fail” by way of strict rules for capital, leverage, liquidity, risk management and other requirements as companies grow in size and complexity, with significant requirements on companies that pose risks to the financial system. Furthermore, “The Volcker Rule” has been created; prohibiting proprietary trading, investment in and sponsoring of hedge funds and private equity funds, and limiting relationships with hedge funds and private equity funds. To protect the American taxpayer from a bailout in case of a financial institution’s demise, a so-called “Funeral Plan” requirement was introduced by the Federal Reserve and the FDIC. The plan assumes the case that a single, large and adverse event occurs that is idiosyncratic to the group at a time when the U.S. and global financial systems are not experiencing a system-wide financial panic or crisis. The U.S. Resolution Plan orders the existence of orderly shutdown-rules, liquidation and bankruptcy procedures, with the result that equity and bondholders absorb any losses, not the taxpayers.

When contemplating this part of the new legislation and looking forward, one has to take into account that a number of financial institutions considered “too big to fail” have only grown bigger by acquiring failing institutions during and after the recent crisis. So, the mountain to climb got even higher.

¹¹ Roger L. Martin; *Fixing the Game*, 2011.

¹² Chris Dodd 2010, *op. cit.*

Also, concerning the funeral plan, one has to assume the case that the occurrence of a single large and adverse event that is idiosyncratic to “a” group causes a system-wide financial panic or crisis due to the strong inter-connectedness the financial sector has built up. Such configuration is not at all addressed in the new legislation. Under these circumstances, we would be back to square one.

4. Basel III/history of Basel accords

Table 4: Basel Committee on Banking Supervision Reforms – Basel III

Capital				Liquidity	
Pillar 1	Pillar 2	Pillar 3	Market discipline		
<p>Capital</p> <p>Quality and level of capital Greater focus on common equity. The minimum will be raised to 4.3% of risk-weighted assets, after deductions.</p> <p>Capital loss absorption at the point of non-viability Constrains forms of capital instruments that include a clause that allows the decision of the relevant authority to write off the bank is judged to be non-viable. This principle forms the contribution of the private sector to resolving future banking crises and thereby reduces moral hazard.</p> <p>Capital conservation buffer Comprising common equity of 2.5% of risk-weighted assets, bringing the total common equity standard to 7%. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range.</p> <p>Countercyclical buffer Imposed within a range of 0-2.5% comprising common equity when authorities judge credit growth is resulting in an unacceptable build up of systematic risk.</p>	<p>Risk coverage</p> <p>Securitisation Strengthens the capital treatment for certain complex securitisations. Requires banks to conduct more rigorous credit analyses of externally rated securitisation exposures.</p> <p>Trading book Significantly higher capital for trading and derivatives activities, as well as complex securitisations held in the trading book. Introductions of a stressed value-at-risk framework to help mitigate risk cyclicality. A risk charge for inherent risk set against the default and migration risks of securitised credit products and takes liquidity into account.</p> <p>Counterparty credit risk Substantial strengthening of the counterparty credit risk framework. Includes more stringent requirements for measuring exposure capital instruments for banks to use central counterparties for derivatives; and higher capital for inter-financial sector exposures.</p> <p>Bank exposures to central counterparties (CCPs) The Committee has proposed that trade exposures to a qualifying CCP will receive a 2% risk weight and default fund exposures to a qualifying CCP will be capitalised according to a risk-based method that consistently and simply estimates risk arising from such default fund.</p>	<p>Containing leverage</p> <p>Leverage ratio A non-risk-based leverage ratio that includes off-balance sheet exposures will serve as the backstop to the risk-based capital requirements. Also helps contain system-wide build up of leverage.</p>	<p>Risk management and supervision</p> <p>Supplemental Pillar 2 requirements. Address firm-wide governance and risk management, capturing the risk of off-balance sheet exposures and securitisation activities; managing risk increases; providing incentives for banks to better manage risk and return on the long term; sound valuation practices; stress testing; accounting standards for financial instruments; corporate governance; and supervisory colleges.</p>	<p>Pillar 3</p> <p>Revised Pillar 3 disclosures The requirements introduced relate to securitisation exposures and responsibility of off-balance sheet vehicles. Enhanced disclosures in the detail of the impact of capital and their contribution to the reported accounts will be required, including a comprehensive explanation of how a bank calculates its regulatory capital ratios.</p>	<p>Global liquidity standard and supervisory monitoring</p> <p>Liquidity coverage ratio The liquidity coverage ratio (LCR) will require banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors.</p> <p>Net stable funding ratio The net stable funding ratio (NSFR) is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.</p> <p>Principles for Sound Liquidity Risk Management and Supervision The Committee's 2008 guidance <i>Principles for Sound Liquidity Risk Management and Supervision</i> takes account of lessons learned during the crisis and is based on a fundamental review of sound practices for managing liquidity risk in banking organisations.</p> <p>Supervisory monitoring The liquidity framework includes a common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level.</p>
<p>All Banks</p>					
<p>SIFIs</p> <p>In addition to meeting the Basel III requirements, global systemically important financial institutions (SIFIs) must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. The Committee has developed a methodology that includes both quantitative indicators and qualitative elements to identify global systemically important banks (SIBs). The additional loss absorbency requirements are to be met with a progressive Common Equity Tier 1 (CET1) capital requirement ranging from 1% to 2.5%, depending on a bank's systemic importance. For banks facing the highest SIB surcharge, an additional loss absorbency of 1% could be applied as a disincentive to increase materially their global systemic importance in the future. A consultative document was published in cooperation with the Financial Stability Board, which is coordinating the overall set of measures to reduce the moral hazard posed by global SIFIs.</p>					

Source: BIS, Basel Committee on Banking Supervision Reform – Basel III, June 6, 2011

The BIS-chart, I think is a comprehensive rule setting with two distinct requirements on banks going forward, a minimum capital and liquidity structure and an ultimate inception date in 2019.¹³ (Certain parts have an earlier inception date.)

Concerning the subject, I reflected on papers issued by the “Group of Thirty”, titled “Regulatory Reforms and Remaining Challenges” and the “Testimony of Professor Richard J. Herring, Wharton School, University of Pennsylvania before the U.S. Senate Banking, Housing, and Urban Affairs Subcommittee on Securities, Insurance and Investment”, among other materials.^{14 15}

I will split my contribution in two parts, the history of the Basel-Regulations and its design flaws and what are the defects in Basel II. I will also comment on the Basel III-rules, its key features and comments made as well as critical issues.

Basel I, (and I quote Professor Herring):

“(C)reated strong incentives for the banks to engage in regulatory arbitrage by shifting assets off its balance sheets and into SPEs that were often largely outside the scrutiny of creditors, regulators and analysts... and back the assets with a line of credit with a maturity of less than one year.”¹⁶

The creation of SPEs, holding assets acquired by the banks instead of holding them on-balance sheet, and the rule that 364-day credit-lines backing such SPEs would not be subject to a capital charge, gave the banks more efficient use of their regulatory capital resulting in more revenue generation by way of increasing their lending volume and servicing the SPEs (also called: oversupply of assets). At the same time, shadow banks like SPEs used securitization transactions to sell the risk into the capital markets, resulting in ever more transaction volume with ever more complex structures.

Another shortcoming was the capital regime for the trading book, ignoring liquidity premia when trading in stressed conditions.

Also, the calculation of regulatory capital was deficient as instruments were included that could not absorb losses in a going concern; intangible assets were not deducted from capital and the 4 % Tier 1 capital requirement was weakened as only half of it was mandated to be common equity.

Basel II introduced the concept of risk-weighted assets against which regulatory capital must be held.

To calculate the so-called Tier 1 capital, the rules introduced two options:

- The Standardized Approach based on external ratings. According to Herring, looking back, it led to *“...unintended, regulatory-induced, pressures for institutions to press for innovations that will yield highly rated credit with higher returns”*.¹⁷

¹³ See Table 4.

¹⁴ Group Of Thirty; Regulatory Reforms and Remaining Challenges; diff. Authors, 2011.

¹⁵ Richard J. Herring; “Risk Management and Its Implications for Systemic Risk”; Testimony before U.S. Senate Banking, Housing, and Urban Affairs Subcommittee on Securities, Insurance and Investment; June 19, 2008.

¹⁶ Richard J. Herring 2008, *op. cit.*

¹⁷ Richard J. Herring 2008, *op. cit.*

As a swipe against the regulation, just think of the *moral hazard* issue, the Credit Rating Agencies were under.

- The Internal Ratings Base Approach. It gave institutions that in the judgment of supervisors have operated sophisticated risk management systems a free hand to calculate their Tier 1 capital requirements. It is each bank's individual "black box" that lacks transparency and opens the possibility for different capital charges for the same asset (bank by bank, and country by country).

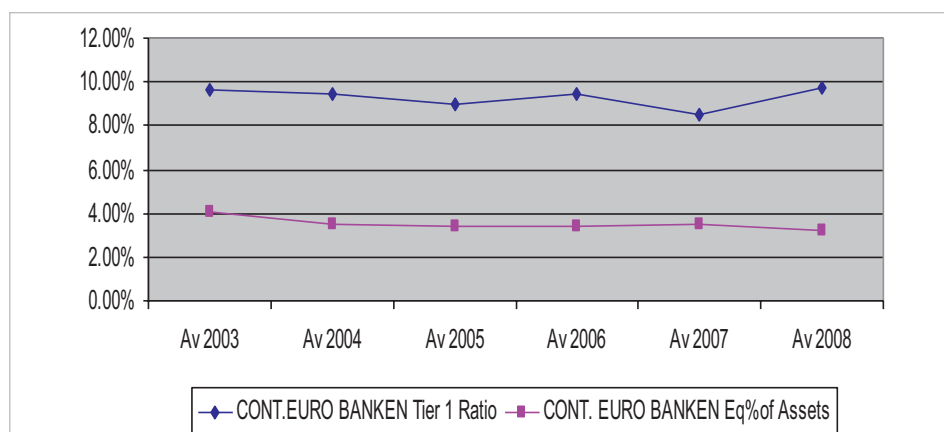
It is fair to say, with the experience of the crisis under the belt, that the risk models run by these institutions were terribly flawed. They could not cope with the complexity of many instruments and appropriate data was lacking to allow the models to make correct estimates. Just think of VaR- calculations for the trading book and the re-thinking of the method happening right now after the "London whale"-event at JPMorgan.

In summary, risk was undervalued. A FDIC study in 2005 already forecast this result, stating "Basel II appears to represent a fundamentally lower standard of capital adequacy that sharply conflicts with the PCA framework. Indeed, in terms of overall capital requirements, a 5 % leverage ration essentially makes the Basel II framework inoperative."¹⁸

It was one of the reasons that the US-authorities delayed the Basel II implementation until 2013.

In my opinion, the charts below display the motivation of the European banks to report their Tier 1 Capital ratio rather than being compared with the leverage ratio, as Equity at a percentage of Assets, published by their strong competitors, the large US-banks.¹⁹

Table 5: C-Banks: Tier 1 Ratio vs. Eq. % of Assets – Europe

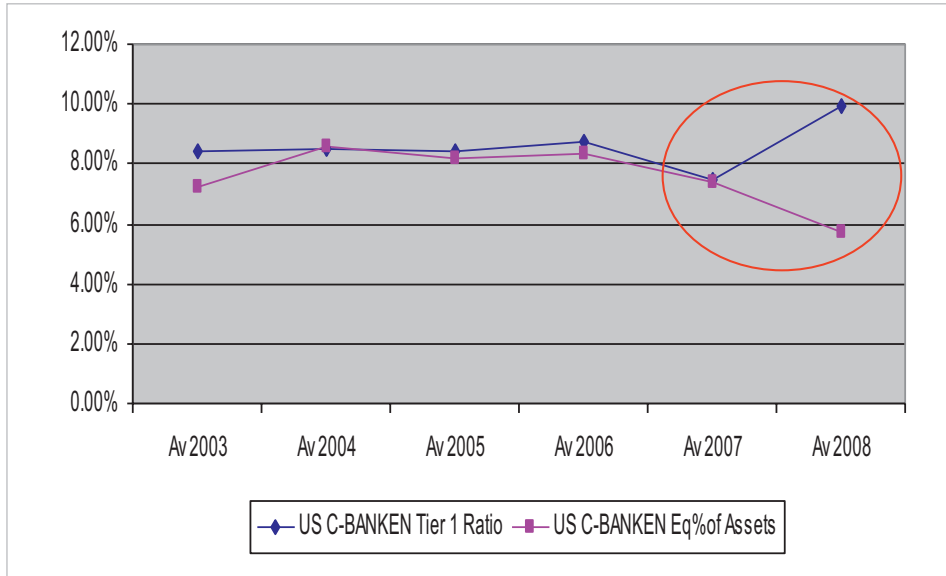


Source: Mikolajczyk; *Veränderungen des US-Bankensystems als Wurzel der Bankenkrise von 2008*; page 162ff.

¹⁸ See Statement of Donald E. Powell, Chairman FDIC: "The Development of the New Basel Capital Accords"; Committee on Banking, Housing, and Urban Affairs; November 10, 2005, pp. 25 ff.

¹⁹ See Table 5 & 6.

Table 6: C-Banks: Tier 1 Ratio vs. Eq. % of Assets – USA



Source: Mikolajczyk; *Veränderungen des US-Bankensystems als Wurzel der Bankenkrise von 2008*; page 162ff.

I would conclude that the Tier1 capital calculation “produced” competitiveness for the European banks for the outer world; i.e. stock markets, clients, etc.; that U.S.-banks have been better capitalized and that post 2007; the worsening leverage ratio versus improving Tier1 capital ratio, at least for me is difficult to reconcile. In particular, taking into account that only one year later, the riskiness of bank assets increased dramatically.

Concluding Remarks on Basel III:

Basel III addresses quite a number of critical issues creating a global standard for liquidity and introducing the leverage ratio –as shown before- in addition to the Tier1 capital ratio. It substantially raises the quantity, quality consistency, and transparency of the Tier1 capital base as follows:

- New minimum of 6 % of risk-weighted assets,
- Introduction of SIFIs with 1 to 2.5 % higher Tier 1 capital requirements,
- At least 75 % must be tangible common equity with the balance of true-absorbing capital,
- New capital conservation buffer of 2.5 % of r/w assets (for “stress periods”),
- New countercyclical buffer of up to 2.5 %, whereas the setting of triggers is a subject of contention.

However, and this leads me directly to the subject of the Euro-crisis as centerpiece of the workshop, these measurements will claim a high toll on the banking sector which in Europe “...play(s) a fundamental role in the financing of the economy...the European

economy is overwhelmingly dependent on banks...this explains that the European banks' balance sheets are, on the whole three times larger than in the United States".²⁰ Jacques de Larosiere makes reference to the much larger and more developed capital markets in the US when expressing his concern about the new ratio requirements.

A McKinsey study estimates the shortfalls on Tier 1 capital and liquidity, assuming 50 % retained earnings payout ratio and nominal p.a. balance sheet growth of 3 % through 2019, primarily due the sheer size of these universal-banking institutions as follows; the European banking sector will need about Euro 1.2 trillion Tier 1 additional capital, Euro 1.7 trillion short-term liquidity and Euro 3.4 trillion long-term funding.²¹ The US banking sector, based on 2010 balance sheet data, would have to cover a shortfall of Euro 600 billion in Tier 1 capital, Euro 570 billion short-term and Euro 2.2 trillion long-term funding. McKinsey estimates that Basel III will reduce the banks' ROE by about 4 % in Europe and 3 % in the US. When asking the question how the banks will provide these necessary sums of money, the solution appears to be reduced to earnings retention and divestitures. Besides the shareholders of the banks who will have to accept lower returns, borrowers and trading partners will potentially see exposure reductions, certain client groups might become under-served and all bank customers will experience significantly more expensive banking services. Investment Banking, i.e. trading activities in OTC derivatives, cash trading and securitization will be impacted most, while Corporate Banking products like long-term corporate and asset-based lending, credit lines to financial institutions, structured finance, trade finance call for higher capital cover and thus will be curtailed. It leaves the Retail Banking business as least vulnerable to cuts due to fee income generation and higher lending margins at acceptable risk architecture.

Employment and staff compensation will shrink. Furthermore, looking at the present Sovereign Crisis in Europe, a risk weighting of zero for these sovereign borrowers will be very difficult to justify by the authorities going forward in order to bring back the European banking sector on proper footing. It will impact the asset composition of the banks' liquidity holdings.

All in all, the above outlined issues as well as the complexity of the large universal institutions definitely calls for business model-adjustments of the major banks. They appear to have become unmanageable, evidenced by recent bad news coming out of enterprises like JPMorgan, Barclays, and Goldman, to mention some recent ones. And, I am certain, these are only a few issues with which the European economies will be confronted.

²⁰ Group of Thirty; Jacques de Larosiere; Remaining European and Global Challenges; p. 31; 2011.

²¹ McKinsey; Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation; November 2010.

5. Final thought

All of it raises the question, whether we should rely on the hope that the new rules and regulations as highlighted here, will make it a safer banking industry and the next crisis a milder one? Or, should there be a reform that forces a business model – change, just like under FDR?

One statement comes to mind when thinking about the financial world we have created:

“We shall never go far toward restoring soundness to banking until we again fully recognize the sacred division between RISK and SAFETY, which in banking is of necessity marked by the separation between commercial banks, security companies, and savings banks. The financiers who have confused these three functions have been destroying the bases of SOUND finance.”²²

A statement made by Supreme Court Justice Louis Brandeis in the year 1915.

²² See Norman Hapgood; *A Foreword to Other People's Money: And How The Bankers Use It*; National Home Library Foundation; 1932; Page xxxvi.

Appendix

These are the conceptual highlights and key features of legislation, according to the summary issued by the committee:

Addressing Systemic Risks/Advanced Warning System

- Financial Stability Oversight Council
- Regulation of Nonbank Financial Companies
- Break Up Large, Complex Companies

Bank Supervision/ -Regulation

- Overhaul existing agency oversight system
- Establishment of Capital Standards

Securitization

- “Skin in the Game”
- Better Disclosure

Transparency & Accountability for Derivatives

- Close Regulatory Gap of over-the-counter derivatives
- Central Clearing and Exchange Trading
- Higher Standard of Conduct

Hedge Funds/ Insurance/ Credit Rating Agencies

- Fill regulatory gaps
- Greater supervision of “shadow financial system”
- Conflict of Interest

Executive Compensation & Corporate Governance

- Shareholder empowerment by way of non-binding vote
- Nomination of Directors
- Claw back of executive compensation

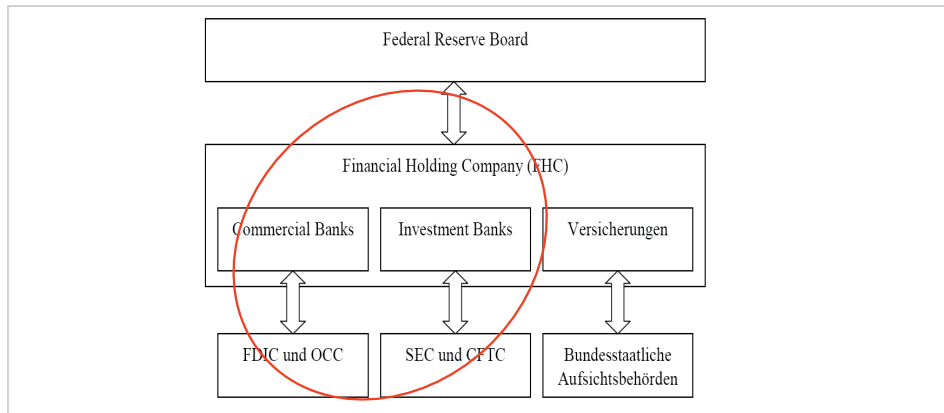
End Too Big to Fail Bailouts/ Bailout by Taxpayers

- Discourage Excessive Growth & Complexity
- “Volcker Rule”
- Extension of Regulation
- “Funeral Plans”
- Liquidation Procedure & Bankruptcy

Furthermore (for completion only):

- Enforcement of Regulations on the Books
- Consumer Protection
- Investor Protection
- Reform of The Federal Reserve
- Requirements and Oversight of Credit Rating Agencies

Table 2: US Banking Supervision



Source: Hartmann-Wendels, etc.; Bankbetriebslehre, p. 74 (incl. own input)

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US Banks, Competitive Advantage, and the Volcker Rule

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“Essentially, JPMorgan has been operating a hedge fund with federally insured deposits within a bank.”

Mark Williams, Federal Reserve bank examiner and Boston University finance professor

“If you don’t have a competitive advantage, don’t compete.”

Jack Welch, former CEO of General Electric

This paper applies standard strategic competitive analysis (Porter 1979, 1980, 2008) to two activities of taxpayer-guaranteed banks, business lending and proprietary trading. It finds that banks have a strong competitive advantage at business lending and a strong competitive disadvantage at proprietary trading. Thus in addition to protecting taxpayers and nonfinancial businesses, the Volcker rule also prevents banks from competing in an activity at which they have a competitive disadvantage. The paper also dissects JPMorgan’s (JPM) “London Whale” speculation of 2011–2012 as an example of banks’ competitive disadvantage at proprietary trading.

1. Porter strategic competitive analysis

Strategic competitive analysis applies at the level of a specific line of business. Thus a firm may have a competitive advantage in some product lines but not in others. There are five dimensions on which a firm’s managers should assess the attractiveness of continuing in or entering a particular line of business, indicated immediately below with some prominent indicators for each dimension.

The threat of new competition considers the possibility that effective new suppliers will enter the market. Pertinent factors include the existence of barriers to entry, product differentiation, brand equity, customer loyalty to established brands, and capital requirements.

The threat of substitute products or services addresses whether the existing product line could be subverted by a new product. What are the relative prices of the new substitute and the established product? Is it easy or difficult, costly or expensive, for customers to abandon your product? How much, if any, product differentiation do customers perceive?

Customer bargaining power relates to the relative degree to which a firm and its customers can set the terms of purchases, including price, quantity, quality, service, and other product attributes. Considerations include buyer switching costs, information availability, availability of substitutes, buyer price sensitivity, and the uniqueness of the supplier’s product.

Supplier bargaining power relates to the relative degree to which a firm and its suppliers and employees can set the terms of their interactions in the business-to-business

and labor markets. How costly is it for suppliers and employees to move on to other customers or employers? How sensitive are the firm's total costs to agreements with suppliers and employees? Are substitute inputs available, including contracting out some salary and wage costs? What is the degree of employee solidarity?

Intensity of competitive rivalry in the business line assesses competitive advantage/disadvantage relative to existing competitors. Does the firm have a sustainable competitive advantage through innovation? Is online business a threat and, if so, is the firm well represented online? What are the levels of advertising effort? Does some other factor give the firm or a competitor a powerful competitive advantage, such as geography, control of an important input, de facto industry standards, or the like?

2. A Porter analysis of the competitive advantage of banks in business lending and proprietary trading

Taxpayer-guaranteed banks engage in a number of product lines, especially the largest banks, those once regarded as “too big to fail” (TBTF). One product line is a traditional business for banks on which they have severely reduced their participation since early in the financial crisis, namely **business lending to nonfinancial firms**. In the view of many economists, banks have slashed credit offerings to existing and potential loan customers, even those with strong business performance. Otherwise healthy firms deprived of commercial lending that had been available for decades have no choice but to cut inventories, production, and employment. In this analysis, the financial crisis spilled over to the real economy, significantly deepening and extending the recession that began in December 2007. Business lending encompasses not just financial underwriting analysis, but also relationship banking and workout expertise.

A more recently adopted business line for some but not all large taxpayer-guaranteed banks is **proprietary trading**, formerly the exclusive province of sophisticated wealthy individuals and hedge funds. A timely example is JPM's “London Whale” trade, analyzed at the end of this paper. Although “hedge” funds openly engage in proprietary trading, it most often represents blatant **speculation**, a conscious expansion of risk exposure in pursuit of higher returns. **Hedging** is the opposite of speculation, namely the reduction of risk exposure, usually but not always at the expense of expected return. (A farmer and a miller on opposite sides of grain futures contracts both reduce risk, leaving expected return unaffected aside from transactions costs.)

The next five subsections assess taxpayer-guaranteed banks' competitive advantages and disadvantages on the five strategic dimensions of Porter analysis. Each contains a summary table. Ratings in the second and third columns of the table refer to whether

each factor tends to give banks a competitive advantage or not. *Yes* and *No*, respectively indicate factors that foster competitive advantage or do not. *Some* means that a partial tendency to competitive advantage exists. In particular, *Yes* and *No* do not indicate that banks exhibit that factor to a high or low degree. For example, in the table assessing competitive advantage against substitutes, *Yes* on *Ease and cost of switching* registers that switching lenders is costly and difficult, not easy and cheap, and thus confers a competitive advantage on banks. Finally, *Bus lend* and *Spec trade* are abbreviations for business lending and proprietary, speculative trading.

Bank advantage, new competition

	Bus lend	Spec trade	Notes on speculative trading
Entry barriers	Some	No	New hedge funds start up weekly
Product differences	Some	No	Only returns matter
Brand equity	Yes	No	Only returns matter
Customer loyalty	Yes	No	Only returns matter
Capital	Yes	No	Initially \$ 10 million suffices

New hedge funds enter the business of speculative, proprietary trading every week, often with only a few million dollars of partner's money. In contrast, rankings of volume of business lending differ little today from a decade ago. Personal relationships are an important part of successful business lending, serving to reduce information asymmetries and transactions costs. Clients judge hedge funds and other speculative investment managers solely by returns or, rarely, by returns relative to risk. Indeed, a paradox exists. A public firm whose earnings are characterized by volatility suffers a discount on its price-earnings (PE) multiple compared to comparable firms with more stable earnings.

Bank advantage, substitutes

	Bus lend	Spec trade	Notes on speculative trading
Relative prices	Some	No	High employee costs
Ease and cost of switching	Yes	No	Investors are already diversified
Perceived differentiation	Yes	No	Only returns matter

Threats from substitutes represent a particularly challenging competitive disadvantage for banks in proprietary trading. Banks' salary structures do not accommodate the high compensation levels earned by top traders at hedge funds. Investors seeking speculative hedge fund exposure and achieve it more efficiently by buying hedge fund units. Most investors seeking hedge fund exposures are already well diversified and will perceive little differentiation in have a bank take on such exposures.

Bank advantage, customer power

	Bus lend	Spec trade	Notes on speculative trading
Switching costs	Yes	No	Investors are already diversified
Information availability	Yes	Yes	Lax disclosure requirements
Substitutes available	Some	No	There are thousands of hedge funds
Price sensitivity	Yes	No	Only returns matter
Uniqueness	Some	No	Strategies are easily copied

Commercial loan customers are much less likely to desert a bank that suffers a difficult time, compared to investors making exit decisions after poor proprietary trading results. For a nonfinancial firm to duplicate a relationship with a new lender is time consuming and fraught with uncertainty. Switching to a different speculative investment manager, in contrast, encounters few impediments. Investors seeking speculative exposures might be thought to understand the risks involved. They nevertheless prove surprisingly fickle after a couple of quarters of large losses.

Bank advantage, supplier power

	Bus lend	Spec trade	Notes on speculative trading
Supplier/employee switching cost	No	No	Repo lenders deal with many borrowers; top traders lured away
Inputs and costs	Yes	No	Sophisticated repo lenders; compensation a major cost
Substitute inputs	No	No	Cannot replace repo investors, employees with specific skills
Employee solidarity	Yes	Yes	Unlikely union setting

Financial services is a knowledge industry in which human capital is the most valuable asset. Human capital moves across firms with much lower transaction costs than physical capital. This is true both for speculative investment traders and for business loan officers. The sole exception may be that superior business lending officers may find it difficult to take clients with them when leaving a firm. This means that a lending banker changing employment may have to suffer a couple of years recruiting new business loan customers before achieving her/his previous level of compensation.

Bank advantage, competitive rivalry

	Bus lend	Spec trade	Notes on speculative trading
Innovation advantage	Some	No	Hedge funds are more nimble
Online versus offline	Yes	Yes	Online unrealistic
Advertising expense	Yes	No	Only returns matter
Powerful strategy	Some	No	Only returns matter

Taxpayer-guaranteed banks engaged in speculative trading have no competitive advantage against hedge funds and other non-bank rivals. Advertising and corporate strategy cannot help in a returns-driven service. Further, hedge funds have proved themselves far more nimble in innovation of new products, strategies, and analyses. In contrast, for business lending, banks have a clear or partial advantage in innovation, productive advertising, and corporate strategy.

3. Summary, competitive advantage of banks in business lending and proprietary trading

	Business lending			Speculative trading		
	Yes	Some	No	Yes	Some	No
New competition	3	2	0	0	0	5
Substitutes	2	1	0	0	0	3
Customer power	3	2	0	1	0	4
Supplier power	2	0	2	1	0	3
Competitive rivalry	2	2	0	1	0	3
Total	12	7	2	3	0	18

The table above tabulates the number of factors in the five dimensions of competitive analysis that tend to give banks have a clear competitive advantage (Yes), some advantage (Some), and a competitive disadvantage (No) in business lending and in proprietary trading.

The usefulness of competitive analysis such as Porter's is that it requires an analyst to be specific about business line competitive advantages and disadvantages on important elements over all dimensions of competitive threat. Lacking such discipline, the analysis risks becoming impressionistic and ungrounded.

A careful analysis of the characteristics under which taxpayer-guaranteed banks participate in the activities of business lending and proprietary trading makes it clear that banks have a strong competitive advantage in lending and a notable disadvantage in speculative trading.

There is no other conclusion but that implementing the Volcker rule would prevent banks from engaging in an activity for which they have a competitive disadvantage. This result reinforces the initial motivation for the Volcker rule, namely to protect taxpayers and nonfinancial businesses, both of whom have suffered at the hands of the banking system during the financial crisis that began in 2008. Banks reduced or eliminated credit indiscriminately, starving even long-standing business customers, including those that had never missed a payment. A nonfinancial firm that cannot finance its inventories and accounts receivable has only one choice, to reduce inventory, output, and employment. This scenario was replayed again and again.

4. JPMorgan's "London Whale" speculation

JPM's loss of as much as \$9 billion in its "London Whale" speculation during 2012 provides a crystalline example of the comparative disadvantages of banks in speculative trading and of the threat to taxpayers who are ultimately at risk.

In 2007, JPM reported \$76.5 billion of investment securities. By 2011 investment securities had more than quadrupled to \$356 billion, much resulting from JPM's merger with WaMu (formerly Washington Mutual, a very large savings bank). A considerable portion of the new investment securities was of low quality. At some point a decision was taken to reduce risk exposure. In 2011 JPM bought credit protection in the CDX IG Series 9 and related CDO tranches. This index was launched in 2007. By 2011 it was four years old and thinly traded. Its remaining contract length provided protection for another year or less. The most effective hedge, of course, would have been to sell some of the WaMu securities.

Due to the small volume of trading in the four-year-old CDX IG Series 9 securities, JPM's purchases drove up the price and generally caused the cost of protection to rise. Reportedly JPM then recorded gains on its existing positions.

By late 2011 and early 2012 JPM apparently sold credit protection in longer dated CDX IG indices and CDO tranches. JPM called this action a "hedge of a hedge," but it is not. It is a speculation that economic crises, including Greece and the euro, would be resolved in less than one year. The most effective way to reduce a hedge is to take offsetting positions in the same instruments. By March 2012, JPM gross positions in CDX IG indices and tranches exceeded \$1 trillion.

In May 2012 JPM announced a \$2 billion loss to date and the likelihood of further losses on its CDX IG-related positions. Within a few days JPM revised the loss estimate upward to \$3 billion. In June 2012 press reports indicated that JPM insiders confirmed that the estimated ultimate loss was about \$8 billion to \$9 billion and that this had been known sometime in May.

In releasing its second quarter 2012 earnings, JPM reported a quarterly loss of \$4.4 billion on the London Whale speculation. It also reported a first quarter 2012 loss of \$1.4 billion, necessitating a restatement of earnings for the period. Separately, JPM announced that it had liquidated about half of the \$1 trillion-plus gross positions by July. This surprised some market participants, because forcing large one-sided volumes very rapidly through markets often exacerbates realized losses, causing prices to move against the strategy.

5. A common misapprehension about hedged positions in corporate debt

A hedged position in a business loan or a corporate bond is economically equivalent to a **synthetic Treasury bond (T bond)**, due to no-arbitrage pricing. The investor earns only the default-free rate on a T bond, but earns no risk premium for exposure to credit risk.

In contrast, a bank that has a competitive advantage in business lending can earn an **excess return above T bonds**, even if it manages its credit risk exposure with credit default swaps (CDS). The source of the excess return is the bank's competitive advantage in maintaining client relationships, proprietary knowledge of the loan customer and its industry and geographic location, underwriting expertise, and workout experience.

6. Conclusion

A standard strategic competitive analysis (Porter 1979, 1980, 2008) demonstrates that taxpayer-guaranteed banks possess a competitive advantage in business lending, but confront a serious competitive disadvantage in proprietary trading. This result provides an additional rationale for the Volcker rule, quite apart from shielding taxpayers from speculative trading losses and protecting nonfinancial firms from credit crises. An analysis of JPMorgan's London Whale losses, possibly as much as \$8 billion to \$9 billion, provides a clear example. Finally a common misapprehension about CDS-hedged positions in corporate bonds and in business loans is refuted. A portfolio of a corporate bond and CDS protection is economically equivalent to a synthetic T bond. The expected return equals the riskfree rate. But banks with a competitive advantage in business lending can earn more than the riskfree rate while minimizing their credit risk.

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Perspectives of European Banking Regulations

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1. Introduction

The presentation will not try to have a view into a glass bowl although the ongoing regulation processes in Europe show a few indications of an insecure development.

What do I intend to say?

Due to the impact of the financial market crisis that started 2007 in the United States with the blast of the mortgage bubble, a lot of developments in the regulatory landscape in Europe have changed but it seems that the change process is still not finished.

Therefore I will try to paint a picture of the regulatory framework that depends on the changes that have taken place and are as such a basis for trying to give some provisional outlooks.

I want to underline that I only will focus on the European Supervisory structure. I will not elaborate on the national systems in the Members States of the European Union respectively in the European Currency Union.

I also will not have the time to include in my presentation the basic regime and the activities on G20 level.

2. The architecture of the financial market regulation in Europe prior to the crisis

European supervision was based on the system of home state control.

As a consequence the banking licence issued by the home state operated as a 'European passport'. The host member state was not permitted to require national authorisation for a branch of a credit institution that had already been granted a licence in another member state.

Therefore the opportunities for supervision in the host member state were limited. The national supervisor in the host country was only entitled to supervise the branch's liquidity. The competent supervisory authority in the home state was responsible for prudential supervision.

Furthermore financial market regulation in the European member states and on the European level was earmarked by liberalisation and internationalisation of national financial markets.

In detail this system depended on the quality of national supervisory systems, basing on the assumption of mutual confidence between the supervisors. National supervisory authorities relied on each other as they based themselves on each other's supervision and needed to be able to rely on the other party's quality and reliability. Especially that aspect formed a weak link in the chain of European supervision.

Due to that it existed a cooperation between the national supervisory authority as a more or less well working network, that involved:

- CESR (Committee of European Securities Regulators),
- CEBS (Committee of European Banking Supervisors) and
- CEIOPS (Committee of European Insurance and Occupational Pensions Supervisors).

These networks played a decisive role in the European harmonisation process and constituted an important building block in the process of integrating the financial markets. The networks were structured along similar lines. The primary objective was to facilitate the exchange of information between the national supervisors. The essential tasks were divided into three columns: expertise, coordination and peer review.

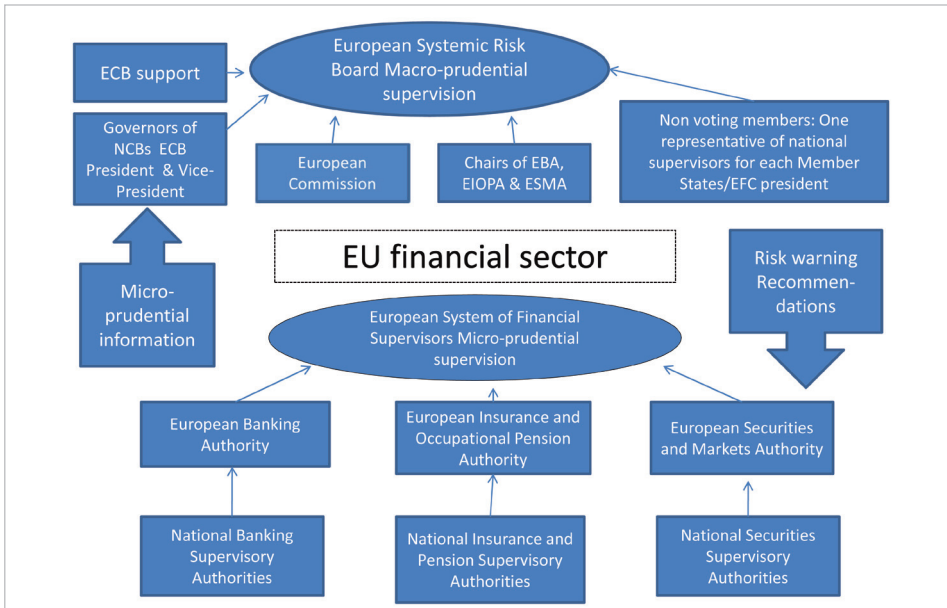
To summarise: Rather than seeking to establish a comprehensive alternative for European supervision, the purpose of the Committees was to reach closer alignment of national supervisory authorities and practices.

3. The new architecture of the financial market regulation in Europe

The financial supervisory landscape changed on January 1, 2011, when the European networks of national supervisory authorities became independent European Supervisory Authorities.

Although the national supervisory authorities remain primarily responsible for the supervision of financial institutions in line with the home country model, there was a shift in the case of certain supervisory tasks from a national to the European level.

Figure 1: The new European Supervisory Architecture



The new financial market architecture depends on the so-called De Larosière report. With its communication of May 27, 2009 the European Commission announced proposals for major changes to the European financial supervision. The proposals were drawn by the approach that there is a need for supervisors at the European level, given the continuingly high number of inconsistencies in national implementing practices. This approach ultimately resulted in three Regulations that established three new European authorities.

The new supervisory framework, the European System of Financial Supervision (ESFS), comprises:

- The European Systemic Risk Board (ESRB), that is responsible for identifying and assessing potential threats to financial stability stemming from macro-economic developments and from developments within the financial system as a whole.
 - It fulfills a macro-prudential supervision task.
- The European System of Financial Supervisors (ESFS). The system comprises a network of national financial supervisors working with new European Supervisory Authorities (ESAs) to safeguard financial soundness at the level of individual financial institutions and to protect consumers of financial services.
 - It is oriented to fulfill micro-prudential supervision.

The structures of the three new European financial supervisors (EBA, EIOPA and ESMA) are essentially the same.

The European legislator has not established a centralised, integrated European authority, but has left the supervision by the national supervisory authorities at a national level for the various sectors. The ESAs shall more or less moderate and harmonise this supervision on the European level.

The powers of the European supervisory authorities can generally be described as follows:

The most important task of the European Systemic Risk Board is to oversee macro-prudential supervision within the European Union. Hereby the European Central Bank plays a key role.

The Board has no binding powers. It is only able to issue warnings and recommendations. Its role will depend especially on application practice.

The new European Supervisory Authorities have important tasks and powers in order to help achieve greater convergence between national application practices and to allow rapid intervention in the event of conflicts between national supervisory authorities and in emergencies.

They are authorised to:

- To advise and propose technical standards that have to be endorsed by the European Commission.
- To issue guidelines for interpretation and conduct peer reviews.
- To facilitate and coordinate actions of national supervisory authorities in the event of emergencies
- To take binding decisions in the event of disagreements between national supervisory authorities.
- To support and guide functioning of colleges of supervisors.
- To build a common supervisory culture within the European Union.
- To give advice and deliver opinions to the European Commission and the European Parliament.
- To give recommendations to national authorities in the event of failure to comply with European obligations and, if these designations are not followed, to issue specific instructions to the relevant financial institutions.

(Articles 8, 10, 15, 16, 17, 18, 19, 21, 29, 32, 34 EBA regulation)

Concerning the structure and the powers of the new European financial market authorities one could comment that the formal networks simply have been repackaged in another organisational framework.

The influence of the national supervisory bodies is still significant.

For each European financial supervisor, the most important body is the board of supervisors.

This board comprises the heads or chairs of the national supervisors and is chaired by the European Supervisory Authority. Representatives of the European Commission, the European Systemic Risk Board, the European Central Bank and the other two European Supervisory Authorities attend the meetings as observers, but do not have voting rights.

As well as the Board of Supervisors, there is also a Management Board that comprises the chair of the European Supervisory Authority, representatives of the national supervisory authorities and the Commission, an Executive Director and a Board of Appeal. Additionally a Joint Committee, within which the European Supervisory Authorities have to work together to resolve cross-sectoral issues and promote consistency within the various financial sectors, has been established.

To make it brief, the question arises whether these structures will in reality deliver sufficient independence to the new authorities. The new structure is the result of important steps that have been taken. Nevertheless it will take a long term process to reach the expected effects of the new financial market architecture in Europe.

4. Actual issues of the political discussion on further needs to adapt the regulation and the structure of the financial markets in Europe

Recently a discussion started to develop a banking Union for and in Europe. That was accompanied by a discussion to build up a single European banking supervisory structure and a common European deposit insurance system. To be brief, a discussion concerning a banking Union does not mean to organize a big merger of banks in Europe. The objective is to come to a further “Europeanising”. This presentation does not offer the space and the time to discuss these new aspects in depth.

5. A brief summary

I want to finish with one aspect:

Globally the internalisation of financial markets will continue and that will influence the process of Europeanisation. At the end I am convinced, the National Supervisory Authorities will increasingly become the right hand of the European Supervisors. And: In the scope the financial market crisis led to several structural changes, the discussion how the financial market architecture has to be adapted adequately will continue.

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The Corporate Governance of Banks – Lessons Learned from the Financial Crisis

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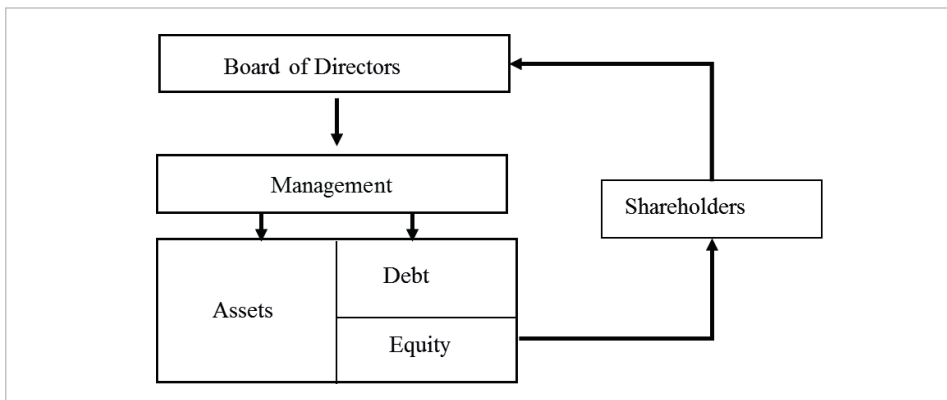
List of Abbreviations

ABS	Asset Backed Securities
CDS	Collateralized Debt Obligation
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EFSM	<i>European Financial Stabilisation Mechanism</i>
EIOPA	European Insurance and Occupational Pensions Authority
ESCB	European System of Central Banks
ESFS	<i>European System of Financial Supervision</i>
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EMU	European Monetary Union
FSB	Financial Stability Board
IMF	International Monetary Fund
KonTraG	Gesetz zur Kontrolle und Transparenz im Unternehmensbereich
MBS	Mortgage Backed Securities
NCB	National Central Banks
OECD	Organisation for Economic Co-operation and Development

1. Introduction

Until the outbreak of the financial crises in 2007 the intellectual debate concerning corporate governance often focused on only two issues. On the one hand (first issue) we discussed the problem, if corporate governance should focus exclusively on protecting the interests of equity claimants, or whether corporate governance should instead expand its focus to deal with the problems of other groups, called stakeholders. On the other hand (second issue) we began with the assumption that corporate governance has to protect exclusively equity claimants, and attempts to specify ways how banks can better safeguard those interests.¹ It is very interesting to compare the Anglo-American model of corporate governance and the Franco-German model of corporate governance.

Figure 1: Anglo-American model of corporate governance

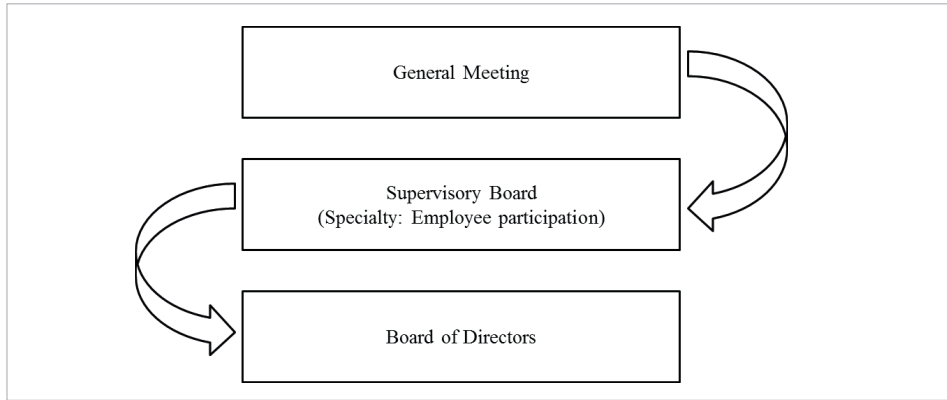


Source: Butler, 1997

Both models differ in its treatment very much. The first model takes the view on maximizing the shareholder value, in contrast to the second model, like in Germany implemented, which considers corporations and banks to be “industrial partnerships”.

¹ See Macey, J.R., O'Hara, M., 2003.

Figure 2: Franco-German model of corporate governance



Source: Own representation based on Welge, Eulerich, 2012

The interests of long-term stakeholders, like other corporations, banks and employees, should be taken into account. Like we know, the Anglo-American and the Franco-German model prefer different solutions to the core problems of corporate governance.

We know the subsequent criticism of German company organs:

- General Meeting
 - Often insufficient and low quality of content
 - Abuse of the right to ask questions
 - Strengthening the chairman rights, less speakers and limited speaking time
 - Problem of order voting rights at general meetings
- Supervisory Board (control function)
 - Involvement in the decision-making process is insufficient or too late
 - Strengthen the advisory role KonTraG
 - Enhance professionalism and therefore quality
 - Fewer seats per council member
- Board of Directors
 - Collective principles are too cumbersome
 - The Anglo-American presidential system is more flexible
 - Effective cooperation and quick decisions

In this context it is not my part to philosophy further about the differences between the Anglo-American vs. the Franco-German model, shareholder value maximization vs. interests of stakeholders. In any case, I think, we need (additional to the general standards

of corporate governance for listed firms) specific approaches, solutions and standards for banks, particularly for systemically relevant banks.

But at the end, the most quoted definition of corporate governance was: “Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment” (Shleifer & Vishny, 1997).

Scandals and corporate failures in US and Europe have led to a renewed interest in research of corporate governance and some legal reforms (e.g. The Sarbanes-Oxley Act of 2002).

The financial crisis in 2008 has shown that risk, transparency and rules of good governance require particularly attention. Analyzing the causes of the financial turbulences, many reports of scientists and authorities identified important deficiencies, especially concerning the corporate governance of Banks.

Totality of legal rules and other recommendations related to good and accountable corporate management, e.g. accounting rules, internal and external audit bodies, board and management work, the role of the owners: shareholder vs. stakeholder, improve the transparency. Later on, we started to look on the management of public enterprises, development banks, saving and loan associations, credit unions, public institutions, authorities in our scientific work.

In all debates we used a common definition for Corporate Governance, for the Code of Conduct (guidelines) for a good /appropriate business management.

→ Internationally referred to as rules for “Corporate Behavior”

Like mentioned before, the objectives were:

- Increase transparency for shareholders in relation to the management.
- Strengthen the confidence of shareholders and all other stakeholders.

2. The role of banks and what is different in banks?

There is no doubt that banks exert a strong impact on economic development of firms and of the GDP in a macro-economic framework. Corporate governance of banks becomes more and more crucial for growth and development. After the crisis a new discussion started about the relationship between corporate governance approaches and the stability of banks, of the banking market and in any case about the impact on the national banking systems. We are living in a European banking market! In this discussion we see two contrasting views: First of all, non-financial firms and banks are (and have to be) influenced by the same core corporate control mechanisms. But on the other hand, banks need specified corporate standards.

To answer the fateful question: Are banks special concerning corporate governance, we have to discuss the debate more general. Eugene Fama wrote the famous article, “What’s different about banks?” already in 1985. The answer to this question has a strong impact on the decision which financial regulation arrangement should be chosen.²

Because of banks exert a strong impact on economic development; the corporate governance of banks becomes more crucial for growth and development in national and international context.

There are two contrasting views: non-financial firms and banks are influenced by the same core corporate control mechanisms vs. specificity of banks.

Long before the current financial crisis we learned there are two special features of banks because they work less efficiently: opaqueness and regulations.³ Opacity means, difficulties to monitor bank managers. We know partly strong informational asymmetries in the money and capital markets, especially in the credit market. That is why banks are difficult to value, in the contrast to non-financial firms. State interventions seem to increase opacity. The banking industry is one of the most regulated sectors of industry. Most of the countries increased banking regulation because of systemic risks and to protect depositors, look on Basel II and Basel III. International Accords serve to strengthen market discipline: preventing excessive risk-taking through regulation. Against this, we should ask the question: How to create better incentives for appropriate behavior of top management and market participants?

What we can consider are two conflicting views in literature:

- Specificity of banks: common mechanisms of corporate governance are not equally valid in banking corporate governance of banks regulated by authorities in place of private monitors; traditional argument: opacity.
- The same core corporate control mechanisms that influence the governance of non-financial firms also influence bank operations; prudential regulation vs. introduction of incentives for appropriate behavior.

² See Polo, 2007.

³ See Capriom Leaven, Levine, 2007.

3. Corporate Governance and risk management

Risk is an important element which occurs in banks much more than in every other organization or company. Special risks must be managed effectively in order to guarantee a long term success (market risks, credit risks, interest rate risks, currency risks, operational risks etc.). The phrase “risk management” refers a particular management function, which came up first in the early 1950s.

Today the risk management process is more holistic than just dealing with physical risks like at the beginning in insurance companies. In general we can see an enterprise-wide approach, including threats like governance failure and breaches of corporate social responsibility, e. g. unethical behavior, which might harm the firm’s reputation (do we need whistle blowing systems?). Trust and reputation are one of the most important assets of a bank.

Because of to two special features, corporate governance of banks work less efficient: opaqueness & regulation (Caprio & Levine, 2002).

- Opacity:
 - Difficulty to monitor bank managers
 - Informational asymmetries: banks are more difficult to value than non-financial firms are
 - State intervention seems to increase opacity but also to reduce it

→ à improve governance in banking by reducing bank opacity

- Regulation:
 - Systematic risk & depositor protection
 - “lenders of last resort” / “safety net” moral hazard
 - Basel II: market discipline preventing excessive risk-taking through regulation vs. creation of incentives for appropriate behavior

Shortcomings of governance (inside of banks) in risk management contributed to the crisis. Financial markets and high sophisticated financial products seem to be very complex and intransparent from a non-professional perspective, which is the reason why we do not wonder. But after the crisis we find out, there were also a lacks of risk understanding by actors of the risk management chain, this is incredible until today. Even board members of European bank (not only banks form US, Ireland or Island, but also German and Swiss banks) did not fully understand the risk of certain transactions, e. g. derivative products (ABS, MBS, CDOs, which came from the US over London and Dublin in the European markets). In some financial institutions, there was neither an effective supervision regarding the constraints of the risk strategy nor a proper defini-

tion of the risk appetite.⁴ Furthermore we found out: one major feature of the recent banking crisis has been played by liquidity risk. The de Larosière –report said: the misunderstanding of the interaction between credit and liquidity and the supervision authority’s negligence to review banks in terms of financial leverage, reactions as a last consequence were major failings.⁵

That is why in our research we have to define the governance of banks much more complex than before. In general we can distinguish two side of the topic, with many different, very special aspects:

- Internal governance of a bank (Structure of the board, process of risk management, compensation systems, social incentives etc.).
- External governance of the banking system (legal framework, standards, restrictions, regulations etc.).

Concrete we have to look how OECD Principles and national Codices are implemented, how corporate governance is related to the behavior of risk taking, profitability and stability, bank valuations, pricing of stocks, merger and so on. Very interesting are case studies between banks in different countries (comparing corporate governance reports). The corporate governance culture and national standards in emerging markets and in transition economies ask questions to solve problems, to give recommendations how to improve and how to implement those. Which western model should be favored, do countries need own, very special solutions according to the development stage of their banking system, according to the national culture of business? We can see special corporate governance cultures in private, in cooperative and in public banks too.

Research about banking suggests that strong shareholder protection laws increase firm valuations:

- Investors pay more for equity when legal institutions effectively protect their rights.
- Investor protection laws provide the tools for small shareholders to stop large shareholders from expropriating bank resources.

However, banks are very complex and opaque. Investor protection laws alone may not provide a sufficiently powerful corporate governance mechanism to small shareholders. Furthermore, bank regulations may suppress standard investor protection laws. The impact of investor protection laws on banks may differ from their impact on non-financial corporations?

⁴ See European Commission, 2010a.

⁵ See The de Larosière Group, 2009.

4. Risk taking and executive board composition

After all this experiences, it seems to be very interesting to have a look on the ownership structure of banks:

- Ownership structure is an additional mechanism for using corporate control.
- Banks are generally not widely hold, only about 25 % are widely hold (i.e. they do not have a shareholder that owns at least 10 % of the voting rights).
- The controlling shareholder of a bank is in most of the cases a private major shareholder, while the state is the controlling owner of banks in one-fifth of the time.
- Stronger legal protection of shareholders is positively connected with countries having more widely held banks.

Another research approach should be mentioned concerning corporate governance in banks. In my mind, a very interesting paper was published currently in Germany. It explained how socioeconomic characteristics of executive teams affect corporate governance in banking. Exploiting a unique dataset of the Deutsche Bundesbank, scientists show how age, gender, and education composition of executive teams affect risk taking of financial institutions.⁶ They found out, that the socio-economical composition of a company's board is highly relevant for economic and social policy. What are the key results? First, younger executive teams increase risk-taking. Second, board changes that result in a higher proportion of female executives also lead to a more risky conduct of business. Third, if board changes increase the representation of executives holding Ph.D. degrees, risk taking declines.

What we have to learn from that? I am not sure, maybe this could be a topic for our discussion after my official contribution.

Main conclusions should be:

- Qualified board oversight and robust risk management is important.
- The OECD Corporate Governance Principles in these key areas need to be reviewed.

We should not forget, risk models failed due to technical assumptions, but the corporate governance dimension of the problem was how their information was used in the organization structures of banks. Attention has focused on internal controls related to financial reporting, but not enough on the broader context of risk management

- The financial turmoil has revealed severe shortcomings in risk management practices.
- CDO exposure far exceeded the firms understanding of the inherent risk.

⁶ See Berger, Kick, Schaeck, 2012.

5. Compensation structures – how to improve models for banks?

In 2007/2008 many financial institutions have collapsed or were bailed out by governments because of greedy risk taking in the years before. The crisis of international banks reached its peak in September 2008 when the investment bank Lehman Brothers failed. As a result of this we could see a collapse in confidence in the most areas of banking. The debate about the compensation of bank managers was (and is) an important part in the whole corporate governance discussion after the crisis. Several studies claimed that the executive compensation systems of investment banks and other big banks in the past had been the trigger for the excessive risk taking. The bonus payment structures of much banks were often linked or even encouraged through the generation of short term revenues and therefore long term risks (so called tail risks) haven't been taken into consideration during the decision making process.⁷ After the crisis of private and public banks, the incentive structures of the top management got into the focus of the public and the regulators.

Corporate Governance should be focused on responsibility, long term orientation, value-enhancing corporate management and supervision. In this understanding we have to lead an intensive debate due to:

- Changing landscape of management and supervision of enterprises due to globalization and greater influence by institutionalized shareholders
- Changing demands of international shareholders
- “Professional shareholders” (Pension funds etc.) have a greater impact on management.

Finally there are still the following aims:

- Sustainable increase of the firm value for all stakeholders
- Accounting to international standards to raise transparency
- Intensive Investor Relations through more frequent analyst and investor meetings
- Management compensation according to increase in shareholder value

In 2009 the Financial Stability Board (FSB) published “Principles for Sound Compensation Practices” to reduce incentives toward excessive risk taking that may arise from the structure of compensation schemes.⁸ The board of directors of major financial firms must actively monitor the compensations system's design, operation and functioning. The compensation of staff engaged in financial and risk control has to be independent of the business areas they oversee.

⁷ See London Summit 2009, UBS annual report 2009.

⁸ See Financial Stability Board (2009).

The main points of the FSB – Principals are:

- effective governance of compensation,
- effective alignment of compensation with prudent risk taking,
- effective supervisory oversight and engagement by stakeholders.
- Now we can see selected types of salary regulations in European banks:
 - Taxes on bonuses (variable compensation),
 - wage limits (cap the compensation payments).

To cap the compensation payments for executives in banks was one of the first ideas and was partly implemented in banks with public equity (state owned banks) in Germany. Theoretically there are two ways for limiting payments: an absolute and a relative limit. An absolute limit can be viewed like a cap at a certain level. The relative limits are more flexible and depend on other bank specific factors. One version of such relative compensation limit would link the highest compensation package to the lowest (e. g. the highest total compensation can only be 10 times higher than the lowest in the same bank). The approach with a special tax on the variable compensation can reduce the quantity of high payments, but it does not tackle the initial problem of balancing risk taking. Both proposals do not appear to work as wished. And we should not forget the global competition in the banking market for high potential executives. It is necessary to take risks, if a bank prefers to win and to grow in the global banking market.

6. Banking supervision and regulation

In 2008 the EU commission delegated Jacques de Larosière to lead a group of financial experts to find out impacts on crisis and to give recommendations for banking regulations and supervision of the European financial markets. The report revealed fundamental failures in risk assessment, on the institutional side and on the supervision authority side.

In the literature we find some general definitions of corporate governance for an organization:

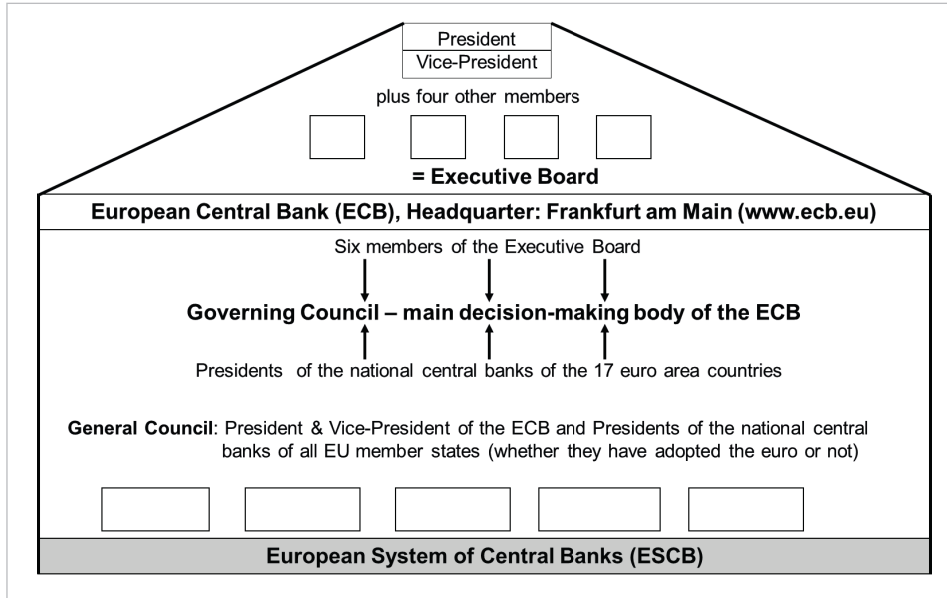
“Generally, good corporate governance for an organization can be defined as the establishment of institutional arrangements that ensure that the organization pursues its statutory goal.”

For public, national and multinational organizations I think without any doubts we can underline:

“Corporate Governance is concerned with holding the balance between economic and social goals and between individual and communal goals.”

The most central banks do quote the central bank law to describe their objectives, but only very few central banks have a mission statement and also publish it.

Figure 3: Structure of the European Central Bank



Source: Deutscher Sparkassen- und Giroverband, 1996

Actual framework of voting rights:

- in general: one person, one vote
- in financial questions: weighted votes
- governors of the NCBs: weighted with the capital key

Voting right in the Governing Council of the ECB:

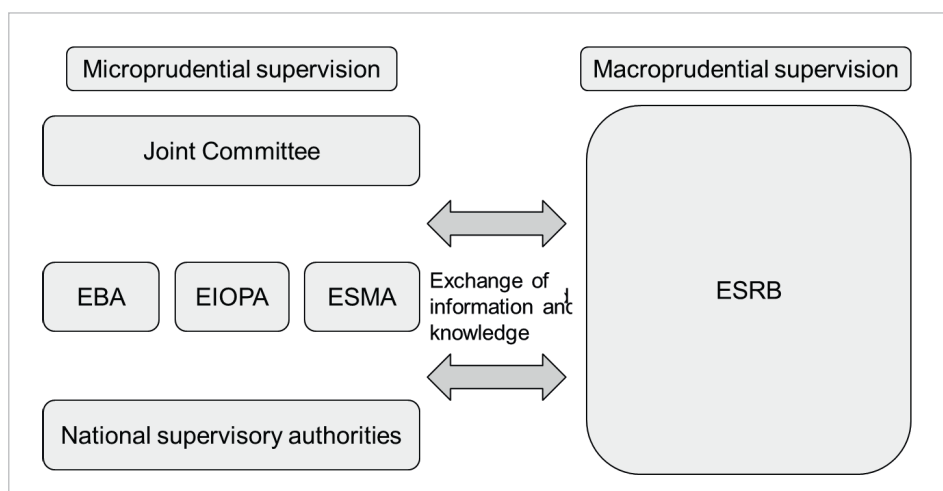
- Executive Board member of the ECB: weighted with zero
- when the external euro system grows, a detailed rotation scheme shall be applied (applicable if there are more than 21 members)

Because of the actual questions and the role of ECB here, we have to clear up some different positions inside of the EU. In addition to the decision-making bodies, the corporate governance of the ECB needs a number of external and internal control layers, like external auditors and European Court of Auditors, internal audit and control structure, ethics framework etc.

7. Reform of European institutions for financial stability

The European System of Financial Supervision (ESFS) was established in 2011 to implement the de Larosière Group's proposed greater integration of European financial supervision.⁹ What is happened with the new European supervisory structure? This ESFS was established to improve the microprudential and macroprudential supervision, because of need to be closely linked together.

Figure 4: Structure of the European System of Financial Supervision



Source: Deutsche Bundesbank, 2012

The European Systemic Risk Board (ESRB) as a part of the EFSF, was established in the context of a reorganization of European supervisory structures. This gave the national central banks a strong position in the ESRB. Very important will be to exchange data between ESRB and other authorities and to strength the cross border cooperation or to give up national power to the new institutions?

One key question is which banks from over 6000 in Europe should be regulated by the euro-supervisors ECB and EBA – only systemic banks (large enough to have an impact on the eurozone)? What will be the task of national banking supervision authorities, the most of them inside of the National Central Banks. In Germany we have to answer the question, what will be the task of the BaFin anymore, with its long analytic and practical experiences and high developed infrastructure.

⁹ See Deutsche Bundesbank, 2012.

Excursus: EU Rescue Packages, EFSM, European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM)

Since 2010/11 we have to deal with the European Sovereign Debt Crisis because of some members of the EU. Several loans were granted under strict conditionality (adjustment programs), like for Greece, Ireland and Portugal.

The EFSM includes 60 bn Euro, the EFSF possesses 440 bn Euro for EU-member states in trouble. All activities came along closely in cooperation with the IMF.

The EU council agreed with a permanent European Stability Mechanism (ESM, 700 bn Euro, 80 bn cash deposit).

The Euro Group agrees to widen the mandate of the EFSF by incorporating preventive elements, including interventions on secondary markets, financial recapitalization of banks through loans to governments. The ECB revives its covered bond purchasing program and the Euro Group agrees to leverage the resource of the EFSF and we had a long discussion as well as several proposals for the introduction of Eurobonds.

In the next month and years we have to go further to reform the EMU by harmonization and consolidation of the fiscal policy of EU-member states. There will be challenges like to bring the European Central Bank back to her core task. The ECB has to realize a monetary policy not only to extend but to stabilize the growth of monetary volume and the stability of the common single currency, to retain the euro system as whole.

Now, the ESM is planned as a permanent crisis resolution mechanism for the countries of the euro area (member and non member states of the EMU). The ESM will issues debt instruments in order to finance loans and other forms of financial assistance to euro area member (and nonmember states).

The decision to create the ESM was taken by the European Council in December 2010 and the euro member states signed an intergovernmental treaty in order to establish the ESM in February 2012. The ESM will be located in Luxembourg and will complement the EFSF after inauguration at the end of 2012.

About such activities and other plans in order to manage the sovereign debt crises we have to force our controversial discussions and we have to find common solutions between scientific and legal specialists.

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On July 20/21, 2012, an international workshop was held on the subject of the global impact of the euro financial crisis at the University of Potsdam. Prof. Dr. Detlev Hummel, faculty Finance and Banking, was the host of the event. Academic colleagues from Beijing, Moscow and Connecticut (USA) as well as domestic capital market and banking experts presented their analyses. Different aspects of national and international financial markets were examined, with a focus on the European region, China and Russia. Mistakes and failures of the banking regulations were identified as one, but not the sole cause of the economic problems. A lack of budget discipline of some politicians and the loss of business competitiveness of certain European nations were mentioned, too. Some members of the European Union did not succeed in mastering the challenges of the global economy. There have been structural issues in some states that impede their competitiveness in the global market, for example with China. The participants pointed out a number of other reasons for the crisis, like dubious distribution types as well as a lack of transparency of certain financial products. Furthermore, remuneration and incentive schemas of investment banks and especially the reckless risk management policy of large banks were identified as other factors for the crisis. The participants of the international workshop in Potsdam agreed that the birth of the Euro currency was a political event and will remain a challenge. The reform of the banking supervision and further steps towards an economic and fiscal union are new research tasks.

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