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ABSTRACT

Capital, Trust and Competitiveness in the Banking Sector*

This note critically assesses the Basel reform process of capital regulation. It highlights the political nature of this process and argues that the absence of clearly spelled-out societal objectives has been detrimental in furthering stability and soundness of the banking systems in the run-up of the 2007/8 financial crisis. The positive externalities of bank capital have not hitherto been explicitly been taken into consideration.

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Keywords: bank capital, Basel process of capital regulation and trust

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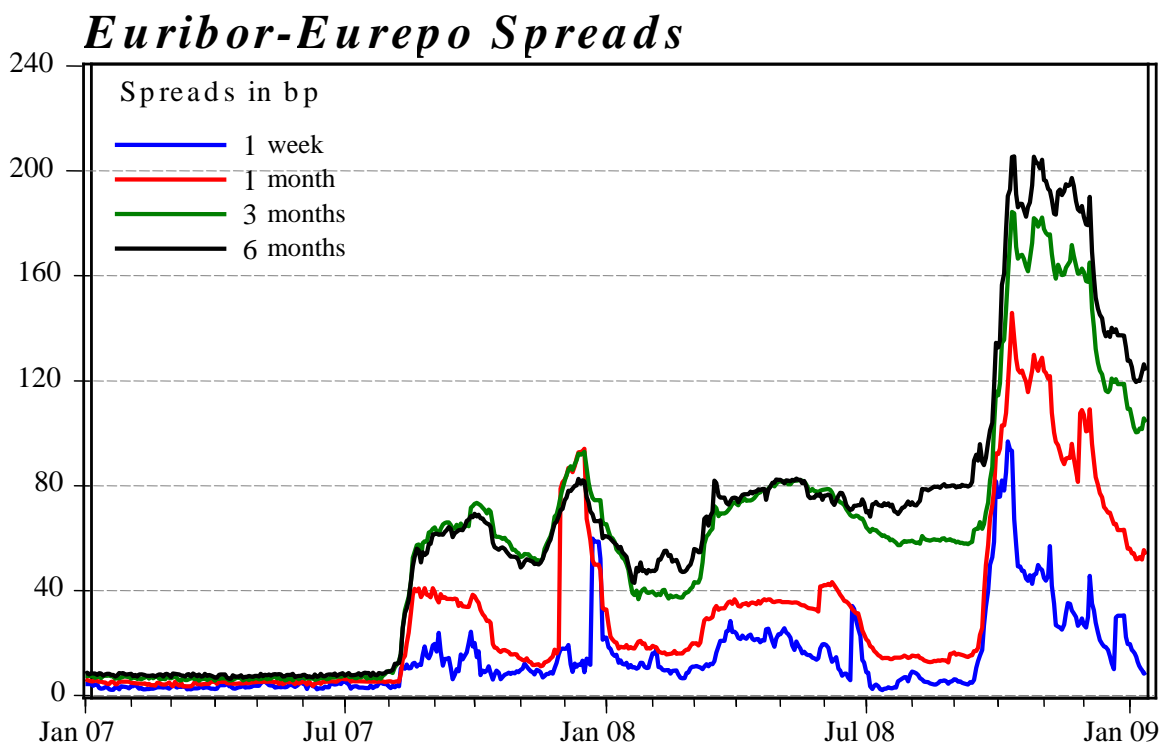
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1. Motivation

The failure of the former rising star Northern Rocks marks the end of an unsustainable business model exploiting regulatory loopholes and inertia. When markets realized the systemic character of the liquidity problems caused by Northern Rock they instantaneously dried out. Overnight interbank money markets drastically changed their character and function. Even specialized financial intermediaries started distrusting each other so much that they completely withdrew short term liquidity. For the first time in the postwar economy the nerve of the banking sector's daily liquidity management, the interbank market came to a complete standstill. Central banks had to substitute for decentralized trading in order to provide liquidity to the banking sector. And in fact, interbank markets have never fully recovered since August 2008.



Source: Data provided by Hans-Helmut Kotz, Deutsche Bundesbank, 2009.

Figure 1 shows that up to the Northern Rock debacle the spread between the unsecured Euribor lending rate and the secured Eurepo rate for the same maturity tended to be in the order of just a few basis points. This spread is a measure of the price for the risk of lending on the interbank market. Hence, prior to August 2008 the price for risk was almost negligible for any short term maturity up to 6 months reflecting an enormous, if not excessive amount

of trust of banks in their peers and a complete absence of concerns about counterparty risk. This picture changed dramatically after the Northern Rock disaster with money market spreads between secured and unsecured deposits reaching almost 80 basis points. The failure of Lehman Brothers added another round of acceleration with pushing even the one-month spreads above 100 basis points. At that point the heart of the financial system essentially stopped operating and was put on life support by massive liquidity injections supplied by central banks. The major participants in the interbank market had completely lost trust in engaging in trading relationships with their peers, and the market has never completely recovered from this episode. Only the sources of risk have moved from the private to the public sector. Still worldwide central banks are substituting for decentralized trading among banks.

How could such a massive loss of trust have been triggered in the financial crisis of 2007/8? Has it been just an accident with considerable collateral damage, or have we been witnessing the consequences of a systemic market failure? Can we still trust in a decentralized banking system or should we call for public banks and governmental support? Is it enough to amend national prudential regulation by taking into account the international nature of business relations or is it necessary to develop a (completely) new regulatory framework for prudential regulation of the global market?

All these are contentious issues of active research and of political debate. In the current contribution I will concentrate on the role of private initiative and private actors. How can private initiative increase the resilience of the financial system? I will only consider the role of a benevolent government that defines the rules of the market in a way to affect individual incentives in a socially desirable way. I will not discuss the diverse interests within government nor the political economy of government itself.² Hence, let us discuss the incentives of bank management in decentralized markets. How will rules affect bank management decisions and how possibly can bad incentives be corrected?

In order to answer those questions one readily verifies that due to a massive collective loss of capital the overall banking system has considerably lost stability and resilience. Therefore, it does not come as a surprise that the government had to bail-out so many financial sector institutions in order to prevent contagious runs. The reduction of risk bearing capital necessarily transferred financial risks from the private to the public sector. Thus, the tax payer effectively has taken over the role of the "risk-taker of last resort" (Kotz, 2009). This is why our analysis has to start with an analysis of the relation between capital and risk taking of banks.

The regulation of bank capital always has been the central *raison d'être* of the Basel process of harmonizing banking regulation. Hence I will devote one chapter for sketching its

² Hence, in this note I will not address the question to what extent the crisis may have been triggered by (inadequate) regulation and/or policy itself.

main intentions and results. The 2007/8 crisis seems to suggest that the Basel process has not completely succeeded to increase the resilience of the Western banking systems. Some defects are going to be remedied under the Basel III policy choices. However, it seems evident that also Basel III will not achieve to render banking systems more stable and resilient as long as bank management is not taking active initiative to increase resilience as a strategic goal on a private level. The last chapter discusses some options of how private incentives may help to increase stability, and how public policy may provide complementary incentives to support such private action.

2. Bank Capital and Resilience

The failure of Northern Rock also marks the end of a business model that started dominating the European banking market after the turn of the millennium, which essentially culminated in maximizing the return on bank equity by pushing leverage to its limits (Shin, 2009).

The return on equity is defined as revenue per unit of capital. Hence, profit maximization - for a given level of equity - is in line with maximizing return on equity. However, return on equity can also be enhanced by swapping equity for debt at a given profit level, thus increasing leverage. This latter alternative seems to be particularly attractive in periods of low economic growth and stagnating bank profits. The more leveraged a bank is for a given level of profits the larger is its return on equity. However, at the same time the bank's loss absorption capacity is greatly reduced and insolvency risk rises materially.

From a banker's perspective there are two further considerations that favor leverage. First, in most countries interest on debt payments is considered an operative expense and thus deductible for tax purposes, while dividend payments are not. Hence debt enjoys a tax advantage over equity. And second, especially larger and systemically important banks, enjoy the advantage of an implicit costless guarantee in case of distress. In the sequel I will argue that it is precisely these two institutions - the tax code and implicit emergency assistance - that pervert management incentives in the banking industry. These political choices are main drivers of risk taking and fragility of the banking system. This seems rather paradoxical since it is the tax payer who subsidizes risk taking on the one hand while insuring against insolvency caused by perverse risk taking incentives on the other hand. Presumably, the costs for banking bailouts could be substantially lowered by taking away the tax advantage of debt, or even by subsidizing equity financing.³

Not surprisingly, banking lobbies argue differently in favor of leveraged financing. They prefer to emphasize the fact that capital is costly, since - even in the absence of a tax advantage - it

³ Historically the inconsistency of public policy may result from a bureaucratic separation of fiscal policy from monetary policy. Evidently, most Western economies are lacking an overarching coordination device and competency to adjust potential contradictory implications between short term emergency measures and long term taxation.

comprises a risk premium. Hence, in their view affordable financing requires massive leverage.⁴ The lobbyist argument purposefully accepts the inconsistency of the public funding environment in order to benefit from its contradictions, ultimately, at the cost of the tax payer. As long as risks don't materialize banks can return high bonuses and dividends to managers and share holders in otherwise when risks become substantial the costs of bailouts are transferred to the tax payer.

Economically it is not true that capital is particularly costly. In fact, such a claim contradicts elementary principles of finance (Admati et al., 2010 and Admati, Hellwig, 2013). While it is true that equity carries a risk premium over the risk free rate, the risk premium itself depends on the underlying risk, and, hence, leverage. A highly levered bank with 2% core capital will have to pay a far higher risk premium than a bank with 9,5% core capital.⁵ Moreover, part of the advantage of debt is the fact that the risk premium on debt is effectively subsidized by costless guarantees in case of systemically important financial institutions.

Evidently, the political and institutional framework decisively frames incentives in the banking sector. How would a bank refinance in a world with a consistent system of public finances? How even would a bank behave in a completely liberal laissez-faire world? What would be the role of capital financing for banks in such an utopia?

In principle, economic theory would suggest that well-capitalized banks enjoy strategic advantages in the market for savings and deposits since risk averse savers prefer to entrust their funds to more resilient banks for which they require a lower compensation for risk. Accordingly, well capitalized banks should be able to afford lower interest rates on savings and deposits (Gehrig, 1995, 1996). In contrast under capitalized banks would have to compensate savers by offering higher deposit rates in order to compensate for increased insolvency risk. In other words, in competition for deposits banks are involved in a strategic game with quality differentiation where bank capital confers a significant strategic advantage especially with respect to small and risk averse investors and savers. In such an ideal world competition may generate market outcomes with the largest and most successful banks also being the most resilient ones and hence those with the strongest capital base.⁶ In such a world bail-out guarantees for systemically important banks are largely irrelevant, if not counter-productive.

But let us come back to the real world. Obviously, the mechanisms described above are relevant there as well, but they are supplemented and modified by the interferences of institutional structure and economic policy. Tax advantages of debt may outweigh or even overcompensate the strategic advantage of capital and induce a race to the bottom with minimal capital rather than a race to the top. Likewise permissive monetary policy reduces the strategic advantage in the funding market conferred by capital. Hence, both, tax shields and permissive monetary policies are

⁴ For example, Boot (1996) very vividly describes the practitioner's view on bank capital.

⁵ At the beginning of the 2007/8 crisis due to Basel II systemically important banks succeeded in reducing their core capital to even below 2%. Basel III now requires 4.5% of common equity, which needs to be implemented until 2015. Until 2019 required core capital rises to 8%. Systemically important financial institutions need to add a capital preservation buffer of 2.5%.

⁶ As Gehrig (1998) shows, well capitalized banks may have better screening incentives also in order to protect their profits and capital buffers. This results, however, is sensitive on the microstructure of the loan market and the screening technology and does not hold under any condition. From a practical or supervisory point of view more empirical information would be required to from the required judgement.

instruments with the capacity to pervert market outcomes. Ultimately, of course, the quantitative impact of policy measures on market outcomes depends on the (relative) size of public interventions and market parameters.

In early work Berger (1995) has analyzed the relation between capital and return on equity for American banks. Indeed he verifies for the US that prior to the Basel 1988 Accord well capitalized banks did generate a higher return on equity. Moreover, well capitalized were less prone to liquidity problems in that period in the US.

This empirical findings seems to stand at odds to the claims of modern banking lobbies which almost regard capital as a necessary evil that needs to be minimized. There are no words about the potential benefits of capital in fostering resiliency, or even strategic advantage in funding markets or more long term oriented relationship banking. Maybe the many political reforms related to the Basel reform process have effectively overturned the original positive relation between capital, profitability and resiliency? Berger and Bowman (2011) address this issue on the basis of an international bank data set from 1984-2009, which includes several major banking and financial crises such as the S&L-crisis, the dot-com and the 2007/8 crisis. Their main findings are:

- i. In all Western countries capital increases resiliency in crisis periods. This holds for banks of all size groups.
- ii. In normal times it is especially small banks that profit from capital, and not the larger banks.⁷
- iii. In normal times the relation between capital and return on equity is statistically not significant for large and medium sized banks.
- iv. The positive impact of capital is stronger for US banks than European banks.

This evidence suggests that competitive advantages of capital do not seem to play for large and medium sized banks in normal times. However, capital is important in periods for crisis for all banks, and even more so in the US relative to Europe. This differential finding seems to hint to the importance of the institutional environment. Capital is important because of it strengthens funding ability by reducing potential insolvency concerns. This effect is stronger in countries with i) more effective banking competition and ii) for countries with more pronounced insolvency risk (and hence lower guarantees). Monetary policy and universal guarantees in Europe effectively undermine much of the strategic role of capital. Based on this observation the argumentation of European banking lobbies is well understandable. However, as we can witness in Europe, the increased recourse to state guarantees increases the public interest in generating a more resilient and stable banking system. And ironically this is falling back precisely on those banks that generate the highest social risk, i.e. those banks that like to present themselves as systemically important.⁸

⁷ Similarly, Libertucci and Piersante (2012) find that capital is particularly important to improve the resilience of start-up banks in Italy.

⁸ This argument could actually be used in order to support subsidizing bank capital because of its positive externality in periods of crisis. Rather than subsidizing risk taking, the tax payer should have an interest in subsidizing solidity and resiliency. Of course, such considerations would require nothing less than a "little

While the empirical evidence attributes a vital role to bank capital, the Basel process has started to regulate precisely this crucial strategic variable since the 1980s and substantially changed the structure and performance of global banking markets. As it is apparent now, this process has not succeeded to avoid the major crises of 2007/8 and the ongoing European sovereign crisis since 2010. The goal to render global banking markets more stable and resilient clearly has not been met causing the process to implement a new modification under the label Basel III. In fact, this process may even have helped to obscure traditional warning bells. Along this line Haldane (2011) argues that capital ratios based on risk weighted assets were less successful in predicting post-Lehmann insolvencies than plain capital-to-total-asset ratios. What has been the idea behind the Basel process? Which are the specific market failures that require public intervention and which is the particular role of capital to amend those market failures?

3. Unintended Consequences of the Basel Process

According to Goodhart (2011) the Basel Process of harmonizing banking regulation started in the 70s of the last century. Essentially the Basel process has been initiated as an Anglo-Saxon response to early Continental-European attempts to establish a common market in banking services. Since 1972 high ranking officials of six countries - Belgium, France, Germany, Italy, Luxemburg, The Netherlands - the so-called Group de Contact met regularly to design a coordinated regime. At those times supervisory concerns of the Euro-Dollar market as well as transnational banking insolvencies (Herstatt Bank, 1974) were topics of debate. Quite early this Group de Contact coordinated on capital ratios as an instrument to regulate for the common market.

Under the auspices of the Bank of International Settlements in 1974 Peter Cooke initiated the Basel Committee as a forum to discuss the global harmonization of bank capital. The more internationally oriented Basel Committee rapidly took charge of the global regulatory debate soon dominating, and eventually eliminating the Group de Contact. The Basel Committee was a way for the Anglo-Saxon countries to interfere with the Continental-European process of capital regulation and, actually, to become involved in a period, when their own financial systems faced severe stress due to the competitive strength especially of Japanese banks.

As a first result Basel I was implemented in 1988 with a strict 8% capital ratio of risk weighted assets. While the Basel I Accord focused on simple rules relating to the ratio as well as the risk weights, it also diluted the qualities of capital relative to the much stricter Continental-European definitions. While the Group de Contact originally only accepted paid-in equity as core capital, the Basel Committee ultimately succeeded in reducing the amount of high quality capital to 4% allowing the remaining 4% to be paid in by lower quality hybrids.

The ensuing debate about Basel II essentially tried to refine the simple rules to reflect more realistically true risks. More importantly, the Basel II reform was an attempt to provide incentives for banks to implement proper risk management techniques. So banks were allowed to assess assets

revolution" in the think tanks of the treasuries. In the interest of tax payers an effects-based policy might be worth considering.

risks on the basis of their own models that were regularly validated by banking supervisors. Only the US shied away from implementing Basel II prior to the 2007/8 crisis except for the 12 largest banks. Ex-post it appears that Basel II did little in terms of making more stable and resilient. Ultimately, the sophisticated risk management techniques were used to justify capital ratios of even below 2%. For example, for the German banking system at large one verifies that the aggregate capital-to-asset ratio fell to just 4% prior to the crisis from which it recovered to 5% thereafter.⁹ Hence, effectively, and ironically, the Basel process has in fact succeeded in reducing, rather than enhancing, the stability of banking systems by substantially facilitating the reduction in resilience and, thus, generating the need for unprecedented bail-outs in 2008/9. Boot (1996) even argues that capital regulation may have been a source of risk-taking itself rather than curtailing the incentives of engaging in risky lending. Given these developments the intensity of the 2007/8 crises is little surprise.

Securitization and the associated financial innovation provide just for another manifestation of the failure of the Basel process. Jones (2000) argues that most of the securitization of the millennium was based on capital arbitrage as a way to circumvent Basel I regulation. He notes that as of March 1998 already 25% of total risk-weighted loans of the US were already securitized with the main purpose of avoiding capital charges.¹⁰ As we know with hindsight most of the so-called "subprime" assets were securitized. In other words securitization provided a tool to reduce capital charges for high risk US loans and sell them to the global market, apparently with full support of US Fed. Along this line Greenspan (1998) welcomes regulatory arbitrage as a way to correct for "excessive" capital charges.

To some extent the reforms labeled Basel III try to repair some of the defects of Basel II by increasing the quality of capital as well as the effective capital ratios. Until 2015 paid-in capital should get back to 4,5%, slightly higher than under Basel I. Moreover, until 2019 the Basel II core capital of 8% should be mandatory plus a capital conservation buffer of 2,5%. Systemically important financial institutions need to add an extra 2% to reduce potential tax payer burdens. Obviously, Basel III tries to re-establish Basel I status and add some extra buffers. But what is the basis for calculating those numbers. Will Basel-I buffers be sufficient to weather the next banking crisis or should the buffers be expanded, and if so, by how much? Is the Basel process just a trial-and-error mechanism or are the numbers the results of political bargaining? Are there any theoretical and empirical criteria to guide this process?

It may be instructive to have a look at the world prior to the infection of the Basel Committee, which started to exert its influence on Western banking systems since about 1984. In the early phase, the role of capital can be studied as an independent strategic instrument of banks. Moreover, given that the strategic role of capital is affected by national regulation in the home markets, potential national interests in the debate about regulatory reform in the Basel process can be inferred from those early days. In the sequel I will briefly present an analysis of the Federal Reserve Bank of New York from the early 1990s. Table 1 presents capital ratios as well as the cost of capital for Germany, Japan, UK and US.

⁹ This information is taken from the Monthly Reports of the Bankenstatistik of the Deutschen Bundesbank.

¹⁰ See also Jackson (1999).

	Germany	Japan	UK	US
cost of bank capital (80-88)	6.9	3.0	9.9	11.9
industry cost of capital	9.8	6.7	10.6	10.5
capital ratios acc. to Basel I (88)	10%	11.5%	10%	7%

Source: Zimmer, McCauley, FRBNY, 1991

Table 1: Capital ratios and cost of bank capital prior to the implementation of Basel I

The following remarks may be helpful for interpreting the above findings.

- i. The implementation of Basel I in 1988 was largely decided in 1984. Hence, the data may reflect a certain amount of convergence already. Unfortunately, I am not aware of earlier comparable studies, especially dating back to the 1970s.
- ii. Capital Ratios did include hybrid forms of capital only for the Anglo-Saxon countries.
- iii. The Japanese ratios typically consist of a low value of book capital but significant hidden reserves (See also Kane et al. 1990 and Wagster, 1996, Table II, p.1327).

Table 1 establishes that, at least in the pre-Basel period, well-capitalized banks did enjoy the benefit of substantially lower funding costs. Capital costs for German and Japanese banks actually fell well below capital costs of the respective industries' costs by as much as 300 basis points. In contrast the US banking sector fell short of the Basel I rules (tier I plus tier II below 8%) and, accordingly, suffered from higher risk premia and, thus, capital charges. Given this evidence the Basel III rules do not appear particularly ambitious. For Germany and Japan, they essentially imply that the future resilience will not surpass the level that had been reached under Basel I regulations in 1988.

In light of this evidence it is tempting to view the Basel process as reflecting an attempt of less-capitalized banking systems to politically turn the competitive advantage of better capitalized systems into their favor. Surprisingly, by focusing the regulatory public debate on the cost side of bank equity and distracting from its benefits, this strategy was surprisingly successful in changing professional mind frames (Kahnemann and Tversky, 2000), business models and ultimately eliminating the competitive advantage of the better capitalized banking systems. It is just impossible to find quotes of German or Japanese bankers in the 1980s openly favoring to maximize the return on equity over the resiliency of their banks. In contrast they would cherish hidden reserves and damn fair value accounting.

On the other hand, academics often tend to interpret the Basel process as process "to level the international playing field in order to enhance the safety, soundness and efficiency of banking throughout the world." (Allen, 2003, p. 46). While leveling the playing field clearly reflects the political economy interests involved in the process it remains far from obvious, why homogeneity across competitors should increase safety and soundness. And as history has demonstrated, up to now at least, the Basel Process was not effective at all in enhancing the stability and soundness of

global banking systems. It was not able to smooth the 2007/8 crisis and, arguably, it did even contribute to the European sovereign debt crisis by ignoring sovereign risk. By providing incentives for clever innovations, accounting, and risk management the Basel Process contributed to depleting formerly resilient banking system of their main source of stability, namely high quality capital. The induced changes in banking business models has not been unnoticed even within the Basel Committee. So in an internal report of a task force evaluating Basel I one reads: "For certain banks, this <financial innovation> is undoubtedly starting to undermine the comparability and even the meaningfulness of the capital ratios maintained" (Jackson, 1999, p.4). This statement generalizes the observation of Sheldon (1995) on disincentives of Basel-I for Swiss banks "The results suggest, among other things, that current capital requirements in Switzerland tend to overcharge low-risk banks and to undercharge high-risk ones" as a global phenomenon.

It turns out that the Basel Process was never motivated by concerns about particular market failures in order to improve the functioning of decentralized markets (Hellwig, 1995). Goodhart (2011) even goes as far as praising the lack of concern about market failures as a virtue rather than a defect:

"There was no analysis, nor attempt made to assess what the optimal capital ratio should be..... As such it was a pragmatic exercise with which the BCBS <Basle Committee of Banking Standards> felt comfortable, and did well. There were no attempts to relate the measures to underlying theory, such as 'Why do banks need capital?', or 'What is the market inefficiency (failure) which justifies regulatory intervention?'. Instead, the BCBS had been given its marching orders in 1984 by the G10 governors, that is to raise capital ratios in such a way as to enhance international equality among banks, and it marched successfully to that end. It is arguable that the failure of (theoretical) economists to explain, convincingly, to supervisory authorities that such questions were important, or even meaningful. Indeed, the supervisory, financial stability, wings of central banks were generally the last part to be penetrated by professional economists (some would reckon that a 'good thing')." (Goodhart, 2011, p.195-6)¹¹

Probably, the Basel process should be best viewed as a political-economical process affecting the rules for integrating global banking markets in a way as to avoid competitive disadvantages for less capitalized banking systems. This interpretation explains the very process of the founding days of the Basel Committee and the fact that the US as a main driver of this process ultimately did not (fully) implement the Basel II recommendations. Most importantly, however, Wagster (1996) by analyzing the cumulative abnormal returns of bank stocks in the respective countries for the sequence of decisions leading to the implementation of Basel I finds convincing support for this political economy view. According to his findings Japanese banks were affected most by the Basel process, and, thus, incurred the strongest incentives to affect the evolution of this process. Ultimately, in the process of

¹¹ In his study Goodhart (2011) only considers the early years "A History of the Early Years 1974-1997", which ex-post we know have been essentially problem free. Goodhart purposefully does not enter the ensuing debates on Basel II and III. At least here the issue of whether 2% core capital would render systemically important banks resilient might have come to fore. Possibly, the crisis of 2007/8 might have triggered some concern for market failures even within the Basel Committee?

negotiations they succeeded in accounting 45% of the hidden reserves as capital and in eliminating capital ratios on industrial holdings. Anglo-Saxon countries, on the other hand succeeded in negotiating rules that provided incentives to disclose hidden reserves.

Also the risk-weighting of zero for sovereign debt reveals political motives more than sound economic reasoning. Arguably, political weights might have even generated serious disincentives for European investors and banks in the current sovereign debt crisis. From a regulatory perspective high yield sovereign bonds of Greece and Ireland are treated exactly like lower yielding German or Finnish bonds. The very essence of risk management and proper risk incentives is ignored when sovereign risk is at stake. Obviously, governments themselves are interested in distorting financing conditions to their favor. This game seems to work "well" for solid public finances but it breaks down when the solvency of sovereigns themselves is at stake.

At least some of the short-comings of Basel II are in the process of being repaired under the Basel III discourse. Countercyclical buffers, for example, try to smooth out market reactions in downturns that have been both asserted theoretically and supported empirically (Blum, Hellwig, 1995, Thadden, 2004, Repullo, Saurina, Trucharte 2010, Repullo, Suarez, 2012). Accordingly, dynamic macroeconomic concerns are taken more seriously now. However, at large, economist and practitioners are not all enthusiastic about the readjustments. Allen (2003) finds that Basel I regulation subsidized low quality loans on the cost of high quality loans, thus, unintentionally inducing risk taking. Hellwig (2010) cannot identify a proper focus of the regulatory discourse and Repullo, Saurina (2011) find that the specific implementation of counter-cyclical buffers does not only miss its goal but in fact, counter-intentionally, seems to increase pro-cyclicality. Even central bankers concede that Basel II capital ratios have been less predictive of financial problems than simple capital to asset ratios. In this sense Haldane (2011) convincingly argues that simple capital-to-asset ratios did predict the likelihood to default after the Lehman debacle better than the sophisticated Basel II capital ratios based on "optimized" internal models.

How can the resilience of banking systems be improved in situations when the regulatory process itself is of a political evolutionary nature with fuzzy objectives? This holds for both the Basel process as well as the futile attempts of European governments to establish a common financial architecture for the Common European market in financial services. While the markets already are highly integrated the same is not true for national policies. As the European sovereign crisis seems to teach an evolutionary process of national rules is not able to substitute for a sound financial architecture.

Is it possible to rely on private initiative and individual responsibility in such situations? In other words is it possible to organize the banking sector as a market? What can the banking system contribute to the functioning of the market? Under which conditions might it generate socially valuable contributions?

4. Towards a More Resilient Banking System

Similarly to the role of liquidity reserves (Bhattacharya, Gale, 1987) bank capital exerts a positive externality on the banking system. In periods of distress well-capitalized banks can exercise social responsibility by taking over the goodwill of troubled and presumably more fragile banks. This ability to effectively insulate the financial system against liquidity shocks of under-capitalized competitors will enhance trust of depositors and investors in the whole banking system. While some of the benefits of a strong and sound banking system will also be taken by banks free-riding on capital buffers, substantial if not the larger share will rest with those banks taking over systemic responsibility.

To the extent that capital buffers provide a positive externality to others, markets may not be well equipped to provide incentives for optimal capital provision. Even high-quality banks may not have incentives to contribute the socially optimal amount of capital either.¹² As the recent financial crises have shown, the lack of capital is major reason for dwindling trust in the financial sector. Hence, the positive externality of bank capital would seem to constitute a prime reason for public intervention. As done in the Basel III process statutory regulation could mandate minimum levels of capital. Alternatively, policy could provide incentives in a Pigouvian way - e.g. by generating tax incentives - and leave the determination of optimal capital level to the markets. The advantages of the latter approach is a stronger reliance on market knowledge, while the statutory approach easily may fall victim to the "pretence of knowledge" criticism (Hayek, 1974) since it requires lots of information to implement the "optimal" minimal levels of capital. Moreover, in case of distress statutory regulation always allows the excuse that regulatory limits have been obeyed, thus reducing incentives for prior private initiative to avoid distress.

But even if the public is not prepared to subsidize bank capital in normal times, at the very least, it might consider to erase the excessive subsidies on leverage. This applies to both, tax incentives and implicit guarantees for struggling banks. Subsidizing leverage implies subsidizing risk and distrust, and thus ultimately destroying, the financial system.

Given the decline of public trust in the financial system central banks succumbed to the need to ease monetary standards in order to provide incentives for private banks to public debt which private investors are no longer willing to hold. Hence, quantitative easing means a substitution of private trust by central bankers' trust, or simply public trust. A serious consequence of liberal monetary policy consists in its effect on banks' incentives to build up capital strength. To the extent that they have access to liberal central bank funding independently of the financial strength of their balance sheet, banks' incentives for sound private market financing are largely reduced.

Unfortunately, the tone of the public debate about the reform of the Basel process is not helpful to further social interests. This public debate centers on the cost of re-capitalizing banks without asking the question of how it could happen that the banking systems has been depleted of so much capital at the first place. The banking systems at the end of the last millennium seemed much safer and resilient than our modern systems. In this debate it is hardly helpful either when

¹² The vicious public rhetoric against stricter rules in Basel III regulation is vivid evidence of systemically important banks trying to shy away from accepting social responsibility and providing positive externalities.

bankers threaten to reduce their lending activity due to the cost of rebuilding capital. First of all such claims are not credible, because bankers are threatening to boycott the basis of their main business model. Why should they forego profitable lending opportunities if financing costs rise by a couple of basis points? And second, the capital charges of well-capitalized banks are much lower than the capital charges that the market expects from under-capitalized casino banks. Why is it so difficult for bankers to accept social responsibility and lead by example? Maybe it would be preferable if the public debate could concentrate on the virtues of socially responsible behavior? Why not publicly reward stability-oriented behavior and why not create explicit incentives to enhance social concerns and improve resilience? Obviously, such a change in the public mindset of bankers, politicians and public commentators would have to address the issue of what constitutes socially responsible behavior in the financial sector. Maybe, this change in mindset could help to identify the real sources of market failure that lie at the heart of the prudential regulation of banks. Obviously, such a change of mind set would also have to accept the fact that the 2007/8 crisis did result - at least partially - because of inadequate regulation.¹³

"Leading by example" could be one strategy that, in principle, banks can readily implement on their own. Realizing the crucial role of capital as a trust-building investment for their own business as well as for their peers, who don't they go ahead in building up that trust by increasing their financial resilience? The Swiss Banking supervisors have orchestrated a courageous example of such leadership by voluntarily imposing capital requirement in excess of the international Basel III consensus; and they have been fairly successful in regaining the trust of international investors in the Swiss banking market. Quite commendably - and given the discussion about the benefits of capital above not surprisingly - this measure finds strong support at least with the systemically important financial institutions. As such the CEO of UBS, the largest Swiss bank, publicly confirms that capital rules will affect lending behavior only marginally (Gähwiler, 2012). Such "leadership by example" appears like an effective instrument to regain trust, and, finally, financial strength and resilience.¹⁴ One hopes that this regained trust might spill-over well beyond the leading players.

¹³ Probably quite a number of commentators would even assert that the migration of banking activities into the shadow economy has been caused as a response to (bad) regulation that essentially cast a blind eye to the economic mechanisms behind that migration - risk taking and maturity transformation. While formally legal those extensive avoidance activities succeeded in perverting the *raison d'être* of the underlying regulation of the regular markets. Rather than avoiding excessive maturity transformation regulators accepted the build-up of mismatch in the unregulated sector for which they did not aspire to take responsibility.

¹⁴ It is comforting to see that the aspiring economy of China is following the Swiss example by over-compliance of Basel III regulations and prompt implementation in early 2013. More unsettling, however, is the fact that US policy makers of the (still) leading economy shy away from implementing Basel III, as they had shied away from mandatory implementation of Basel II as well (Hellmann, 2012).

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