

Banking Regulation: A Systemic View on Capital Adequacy, Financial Systems and the Regulatory Process

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Abstract

In a comment for the Finance Committee of the Deutscher Bundestag on the finalization of Basel III, I scrutinize the debate on the costs of bank equity, look at the incentive effects and potential distortions provoked by the actual regulatory regimes, and finally describe banks' regulation as a hysteretic process that creates detrimental phases of under- and overregulation. With regard to the first topic, I find strong arguments in the theory of financial intermediation that, in contradiction to the reasoning in the influential paper of *Admati et al.* (2010), bank equity is indeed costly and excessive capital requirements would hamper the efficiency of the banking system. Furthermore, I identify several incentive effects of today's regulatory setting that lead to a more homogenous banking system with larger banks. This development could have negative effect on efficiency, in particular with regard to special needs of the German economy. And although the individual banks might be safer under the new regime, the evolving structure will probably contain a higher systemic risk.

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JEL Classification: G21, G28

I. Preliminary Remarks

The following text is an adapted version of a statement I gave to the Finance Committee of the Deutscher Bundestag, i.e., the German parliament, for its meeting on July 1, 2020. The original version (in German language) is from the 29th of June 2020 and available on the website of the parliament. The purpose of the meeting was to discuss a motion submitted by the parliamentary group of the liberal party (FDP) on the topic of Basel III finalization and the maintaining of Germany's credit supply (BT-Drucksache 19/17745). This motion was submitted on March 3, 2020, that is, before the corona crisis hit Germany with full force. The banking supervisory authorities reacted to the crisis quickly, flexibly and, as far as I can see, rather appropriately. They have thus prevented the gen-

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eral economic crisis from being exacerbated by additional instability in the banking sector, at least for the time being. In their response to the crisis, they have postponed or possibly even permanently abandoned the planned tightening of some regulations.

However, the problems addressed in the motion can by no means be solved through the easing of some individual regulations. Banking regulation has developed a momentum of its own in recent years. This raises considerable questions, especially for the German economic system, which continues to rely heavily on banks for financing. In light of the special features of our financial system and thus also of our economic system as a whole, Germany in particular has a key interest in efficient and appropriate regulation of banks.

The recent financial scandal surrounding the fintech company Wirecard offers particularly striking evidence of the existing deficits. However, it also suggests that a solution cannot be found simply by continuing with the current regulatory strategy. Neither more detailed reporting requirements nor additional capital requirements would have helped. The problem lies in the actions of the regulatory authority itself. It remains to be examined to what extent the existing supervisory standards have been helpful in the present context, or whether the bureaucracy associated with the existing plethora of standards has not been partly responsible for the inadequate response of the supervisory authority.

Against this backdrop, I will first address the basic question of the role of equity capital and, as a complement in refinancing, the role of deposits in banks. Based on this discussion, I argue in favor of robust but also moderate capital requirements for banks. In a second step, I will discuss possible distortionary effects of the existing supervisory and capital regime. These distortions affect both the structure of the banking system and the structure of the German economy as a whole. In this area as well, the German banking and economic system is faced with a peculiar problem that does, to this degree, not exist in other countries of the European Union. In a third step, I will take a necessary look at the dynamics of the regulatory process. The guiding principle of this process is the idea of rational government action that is not geared toward short-term political interests or a bureaucratic logic of its own. The overriding objective of all these considerations is – in line with the traditional and established view of the international and German banking literature – to avoid a bank-specific form of market failure while at the same time preserving the functionality of the banking system.

Underlying this analysis is the idea that the financial systems that have developed in the various countries, in their specificity, are valuable for the economy and for the people of each country. In the context of the European Union, even in their diversity, these systems should be preserved and ideally even promoted in the interests of the stability and efficiency of the European financial system and economy.

II. Bank Equity Capital: Benefits and Costs

1. “Expensive” Bank Equity

The financial industry long argued against higher capital requirements, maintaining that refinancing through equity is much more expensive than refinancing through debt. This view was fundamentally challenged from 2010 onwards by a group of internationally renowned economists (e.g., *Admati, DeMarzo, Hellwig and Pfleiderer*, 2010). According to these authors equity is by no means more expensive than debt, and high equity ratios of around 30 percent are also conceivable without a loss of efficiency. They argue that banks would indeed make better credit decisions and show better performance with a higher equity ratio. The fact that banks choose such a low equity ratio should not be taken as an indication that this is optimal from a macroeconomic point of view. Rather, in their view, the low equity ratio is the result of misplaced incentives, such as tax deductions for debt financing.

As important as it is to question the cliché of expensive equity, it is also important to critically examine this new line of argumentation. The arguments can be grouped into three categories, which I address in the following.

2. Irrelevance of Financing

According to the classic irrelevance theorem of financing, under very broad assumptions of perfect capital markets, a company’s capital structure has no influence on its market value. For example, if the owners of a company want to increase the value of its equity by issuing “cheap” debt, the advantage they gain in market equilibrium is compensated for precisely by the rising costs of debt, which becomes riskier due to the higher degree of indebtedness. If equity therefore has a positive effect on banks from the supervisory perspective, there is nothing to prevent supervisory authorities from imposing a higher or even a very high equity ratio on banks.

Everyone involved in this debate is of course aware that capital markets do not exhibit this degree of perfection. The limitations of the argument stem from the fact that, in perfect capital markets, any regulation of banks would become obsolete, since regulation is intended to remedy market failures that do not occur in perfect markets. However, the perfect market model serves as a benchmark to describe the functioning of real markets and to analyze the effects of various market imperfections. In addition, the argument of using more expensive debt to compensate for risks also applies in imperfect capital markets, and this effect limits or eliminates the possibility of equity investors to profit from higher debt ratios. Finally, there are always economists, especially in the Anglo-Saxon world,

who consider the efficiency losses arising from imperfect capital markets to be negligible. However, the latter position seems to be even less tenable in the wake of the global financial crisis than it was before.

3. Principal-Agent Theory and Incentive Models

Within the framework of corporate finance theory, numerous market imperfections have been analyzed with regard to their effects on the optimal capital structure. Findings from these studies can generally also be applied to banks. According to these studies, a key driver of high corporate debt is the privileged treatment of debt in taxation (“tax shield”). This can lead to efficiency losses if companies choose to run an excessively high level of debt, thereby increasing the probability of costly bankruptcy.

Especially for banks, there are other ways of increasing the company’s risk aside from changing the capital structure. Large banking institutions have the best access to markets where financial risks are traded. Risk management is a core component of banking, and if markets or products that are needed to create a specific risk profile are lacking, there are some market participants who are quite capable of creating them. Banks can thus develop even extremely hazardous risk profiles very quickly and cost-effectively.

The temporal dimension in which action is taken also plays a role in this: Banks that can be observed by all market participants to take unexpectedly high risks must pay a correspondingly high risk premium for their debt financing at market equilibrium. But a substantial amount of time may pass before this new market equilibrium is achieved. Existing financing will continue at the old terms and conditions, and many market participants, especially in the retail market, will probably only become aware of the actual risk very slowly. This creates a large window of opportunity for banks to shift value from debtholders to equity holders by increasing the debt ratio or switching to a riskier investment portfolio. Losses in efficiency arise from the increased probability of a presumably costly bankruptcy, and from the distortion of investment decisions in favor of high-risk investments.

For banks, this risk incentive problem is exacerbated by the regulatory implications of the type of market failure that is typical for banks: Banking systems are always exposed to the risk of a run on the liquidity of an individual bank or even the entire banking system. Some authors (e.g., from the so-called “free banking school”) see the threat of a bank run as a highly efficient instrument of market control that should deter banks from taking excessive risks. However, bank runs are usually based on insufficient information and can therefore also affect healthy banks. The horror scenario of a global run on the banking system has been in the minds of political decision makers since the Great Depression of

1929, as it would likely have the most the serious economic, social and political consequences. Most countries have responded by creating comprehensive systems of protection designed to reduce the impetus for a bank run. Yet these systems also weaken market control and thereby exacerbate the risk incentive problem. Regulation itself thus gives rise to false incentives and a need for more extensive regulation.

The dangerous but, for banks, typical connection between the risk incentive problem and the danger of a bank run is the central justification for special supervision of banks. It also illustrates why the use of equity capital to limit a bank's risk is, rightly, the mechanism at the core of this special supervision. Thus, we should abandon the static notion that the primary objective of equity regulation is to provide banks with an adequate capital buffer to cover losses in every eventuality. This idea does not answer the question of what happens to the bank and its depositors when the equity capital is "used up"; nor does it take into account the fact that even in the short term, banks can build up extremely risky positions through the financial markets. The potential losses from such positions can easily exceed any moderate capital buffer. Creating a buffer that would protect against all conceivable losses would therefore only be possible with drastically increased capital requirements. The question arises whether such a step might not ultimately affect the banks' ability to perform their function in the economic system.

From a dynamic perspective, equity capital standards serve to manage the risk incentive. Bank owners who have more to lose will act more cautiously, and will also provide the bank management with incentives to behave more cautiously. Two issues need to be taken into account here: First, managers who have not been given positive incentives to take risks will tend to act too cautiously, in order to increase their own job security and avoid unnecessary burdens. And second, from a macroeconomic perspective, the goal cannot be for banks to take as little risk as possible. Ideally, banks should be service providers and experts in managing financial risks, which includes actively taking risks. The resulting risk of individual bank failures and of a systemic failure of the banking system that is linked to this could be drastically reduced if banks could be obligated to maintain a very high equity ratio without incurring significant costs.

4. Theory of Financial Intermediation

There are various approaches to the question of banks' economic function, most of which deal with the asset side of the bank balance sheet. Banks serve as "delegated monitors" that are empowered to monitor loans in a cost-effective manner and thus enable capital to be transferred at low transaction costs. But also, and especially in relationship-based banking, they can efficiently renegotiate

ate and restructure financing relationships when problems arise (“contractual incompleteness”). At first glance, it does not appear to matter whether banks are financed by equity or debt. Yet the “delegated monitoring” approach already implies that the bank is financed by deposits (see *Diamond*, 1984). In this model, financing from equity providers who exercise their control rights effectively does not lead to a reduction in transaction costs. The financing of the bank through deposits is therefore an essential component of this classic intermediation model.

The importance of deposits becomes even clearer in the third main approach to explaining the existence of banks. According to this approach, banks provide economic entities with liquidity. This crucial function of banks can be observed on a daily basis at ATMs and in every non-cash payment transaction. When we utilize these services, we access credit lines and bank deposits, although the bank deposits clearly dominate in terms of their weight on the balance sheet. From an individual perspective, banks thus make the activities of every economic entity significantly more predictable and secure. The banks’ function as liquidity provider is the precondition that allows numerous human activities to take place. A failure of this payment system can have the most serious economic impact.

Banks provide this service by pooling the stochastic liquidity needs of economic entities. They do so both within the context of the individual bank and across the entire banking system, through the transmission mechanism of the interbank market. By diversifying liquidity needs across individuals, regions, sectors and even countries, the banking system is able to ensure the supply of liquidity based on a relatively small aggregate liquidity buffer. On the one hand, this means that banks are always exposed to the risk of a run on their liquidity. On the other hand, it enables a much larger share of the available capital to be mobilized for long-term and more profitable investments. The counter-image of a static society and economy in which cash and cash equivalents are hoarded to a large extent illustrates the importance of the banking system as a liquidity pool for the economic dynamism of a country and the global economy as a whole.

In the present context, it should be noted that bank deposits play an essential role in banks’ performance of their economic function. To put it more simply: Bank deposits are a banking product that banks use to fulfill a specific economic function. Bank shares are simply a source of financing. A drastic increase in the equity ratio of banks would therefore, from a macroeconomic perspective, significantly limit the extent to which banks can fulfil their economic functions. This would have far-reaching macroeconomic, sectoral and individual impacts. The performance of the financial system would be reduced overall, although the extent of the damage would depend in part on possible substitution effects. The banks themselves would have to find a way to compensate for the fact that they

are no longer allowed to cover a substantial portion of their refinancing through bank-specific and – at least in principle – income-generating deposits. One may speculate about how they would react. However, in view of the already serious fixed-cost problem of the banking business, one could expect an increased concentration in the banking market. Such a development would lead to reduced competition and higher prices for the remaining banking products – in particular, higher lending rates.

5. *Interim Conclusions*

The discussion up to this point illustrates the need for capital regulation of banks, which should be designed to prevent excessive risk-taking by setting appropriate limits and incentives. However, the essential role bank deposits play in banks' economic performance should not be overlooked. From this intermediation theory perspective, substituting bank deposits with equity entails considerable costs for the economy as a whole and for the individual bank. The additional security provided by increased equity capital therefore comes at a price. On the other hand, increasing capital requirements could provide strong positive effects if we are dealing with institutions with particularly low capital ratios. This leads to the following conclusions:

1. The increase and tightening of capital requirements in the wake of the financial crisis can be considered thoroughly justified in light of the low capital ratio and inadequate equity capital of some market participants, and should not be rescinded under any circumstances. The behavior of these market participants in the run-up to the financial crisis illustrates the significance of the risk incentive problem and the need for an increased equity capital base to cover risks. There still exists a risk that large banks in particular will undermine the risk incentive effect of the capital requirements. These kinds of opportunities arise primarily from the construction and supervisory acceptance of substitutes for equity capital that do not actually represent the property rights of owners, but they also arise from the inaccurate assessment of risk in internal models.

2. A further increase in capital requirements by supervisory authorities would only be justifiable if the marginal cost of additional bank equity capital were relatively low. In my view, however, this is not the case. The relatively low marginal benefit that would come from this additional safety buffer would be offset by high economic costs. It is facile to call for increasing the risk buffer every time dangers arise or detrimental events occur. The result is a banking system that is less and less able to fulfil its economic functions. This form of over-regulation harms the interests of the economy as a whole and of individual institutions in particular.

3. The size of the equity base plays a central role in the design and functioning of a banking system. In view of the complexity of the underlying causal relationships, capital requirements are certainly not a suitable area for arbitrary experiments or erratic changes. One of the strengths of the supervisory measures put in place in the wake of the financial crisis was the stipulation of a clear path of development to enable banks to meet future capital requirements. The ensuing competition between the regulatory agencies to outbid each other with new compulsory capital adequacy requirements that must be met in the short term damages the financial system and, in the long term, the reputation of the supervisory authority. Changes in capital requirements should therefore always be made with sufficient lead time and, if necessary, in a series of plannable steps.

III. Potential Distortions in the Existing Equity Capital Regime

1. *Level Playing Field*

In the European Union, an ideology of harmonizing supervisory standards has emerged that is geared toward individual business transaction and that negates the institutions and framework conditions on which those businesses are based. The principle of “same business, same risk, same rules”, which was so popular with European supervisory authorities in the past, is flawed even in the first stage of deduction. It makes a difference, for example, whether a loan was granted by a local co-operative bank or an international commercial bank, even if the explicit lending conditions are completely identical. And it still makes a difference if the loan was granted, for example, by an Italian or a German bank in the respective country. These countries differ considerably in their legislation and legal practices, for example, in the field of bankruptcy law, but also in their cultural understanding of economic relations. Every contract contains not only explicit agreements but also the mutual behavioral expectations of the contracting parties and the legal, cultural and social conditions under which they act.

There may be some dispute about whether it is even desirable to comprehensively harmonize conditions in the European Union. But as long as differences continue to exist, banking supervision must take account of them in designing standards and in supervisory practices. The standards set by the Basel Committee and the European institutions were, in fact, based largely on a specific banking model that has no universal validity for Europe. It is not representative of the vast majority of banking institutions, particularly in Germany as largest country in the Union with its large segment of public savings banks and cooperative banks. In many cases, even being able to apply the new standards to these institutions required painstaking negotiations over the details. This process has resulted in exceptionally complex standards that are undeniably oriented toward large, market-listed banks that maximize shareholder value.

The regulatory process will be discussed in more detail in Section 4 below. At this point, I would like to address the distortions and imbalances in existing banking regulation that this approach to designing supervisory standards produces in the German banking and economic system. First of all, I will address the banking system itself, and especially the smaller banking institutions. In a second step, I would like to raise the question of whether the structural changes emerging in the German banking system and induced by supervision also affect the German economic model.

2. European Regulation and the Structure of the German Banking System

The situation of the German banking industry is viewed very negatively today by many observers. The two largest banking institutions have been forced to confront their shareholders with massive losses. But the erosion of margins and growing regulatory costs are affecting smaller banks as well. Given the scope of the problems, one cannot claim that this is a failure of a specific bank management unless one wants to question the management competence of all of Germany's banks. Regardless of the quality of management, it appears to be difficult to manage a bank in Germany successfully under the current conditions. Niche strategies may offer a way out for individual banking institutions, but they do not solve the problem in the market overall.

Frequently encountered explanations for the difficult situation of German banks identify the problem as one of insufficient market consolidation, and argue that increased bank mergers would promise high synergies. They say that Germany is "overbanked" because it has far more independent banking institutions than its neighboring countries. Unfortunately, in my view, there is no scientific proof that larger institutions are more efficient. To the contrary: the large size of some financial institutions has been identified as a major cause of the crisis because they are no longer able to cope with the growing complexity of the situation. The institutions that lie somewhere in-between in size often remain precisely that – "stuck in the middle": They do not achieve the performance level of a large bank, and at the same time, they are faced with declining regional customer loyalty. Apparently, each size category has its own specific problems.

Thus, the main effect that can be expected from an increased concentration in the German banking market is a reduction in competitive pressure, which will result in a restructuring of the German banking system at the customers' expense. This argument could also be a valid justification for market consolidation if one assumes ruinous competition. Such competitive situations can indeed be observed in the cases of Italy and Spain following the abolition of the regional principle for certain banks. In Germany, the continued existence of the regional principle for cooperative banks and public savings banks limits competition

within the regions. Most customers have to deal with a very limited number of banks, at least those with local branch offices to serve clients. The further consolidation of the banking market would not change this situation, unless the aim were to create local monopolies.

Before pursuing such an anti-competitive solution, it would therefore seem sensible to take a closer look at the broader framework conditions prevailing in the German banking sector. Banking supervision tends to neglect one of the key factors: after the financial crisis, the supervisory authority itself gained great power over the day-to-day business of banks. It no longer has a neutral relationship to market events, but now examines not only risk management and numerous operational processes, but also business models. Management and supervisory board meetings of large banks – and increasingly of small banks as well – are dominated by topics of banking supervision. In the case of large banks, the supervisory authority is directly involved in every decision made by the bank's executive bodies, which is likely to make open discussion of business policy in such bodies impossible. This reduces the scope of strategic action available to bank management to what can be communicated to the supervisory authority.

While large banking institutions are becoming more bureaucratic and less flexible, especially in their business strategies and market presence, the dominant issue facing smaller institutions is the fixed cost problem of supervision. Smaller banks have to deal with the highly complex subject matter of banking supervision in its entirety, even though many of these issues do not concern them at all. Above all, the extensive information required by supervisors, which banks often have to submit on a very tight schedule, generates high fixed costs and places an extreme burden on the limited number of staff working at smaller institutions in the respective field of expertise. My impression – confirmed through many conversations with bank board members – is that the increasing effort required to meet the demands of banking supervision is the main driver behind the numerous bank mergers of recent years. Overall, supervision is completely failing to implement the proclaimed principle of proportionality, and not only in terms of direct supervisory costs. If one takes into account the capital relief that large banks have received through the use of internal credit risk models and their access to capital market-based equity surrogates, it is reasonable to assume that, irrespective of the available capital buffer, smaller banks will be similarly or even more severely restricted by supervisory capital requirements than large, systemic banks.

The outcome is that the German banking sector is changing due to increasing concentration and an increasing convergence of business models resulting from supervisory standardization and control: it is losing its diversity, regionalism and customer proximity. Banking institutions are becoming more bureaucratic, and decision-making behavior is increasingly constrained by rules. In many re-

spects, bank employees act only as the extended arm of the state. The proportion of employees who are available to deal with customer concerns is becoming ever smaller. The pressure to increase automation and standardization is growing accordingly. This is already the case not only in retail banking, but increasingly also with corporate customers. For cost reasons alone, the provision of individual advice to private customers is limited to helping them overcome the bureaucratic hurdles that turn opening an account or getting a short-term overdraft into a minor bureaucratic nightmare. As a result, the value of regionalism and customer proximity is being lost. Pure Internet banks are increasingly able to provide comparable services. In the long term, the economies of scale or network effects of the digital economy will pave the way for further concentration, which could lead as far as the formation of an oligopoly or even monopoly.

Many of the developments described here are also the result of technological progress, in particular digitization, which will lead to changes in customer behavior and drastic transformations in the financial industry. In the present context, however, it should be emphasized that the supervisory authority is not acting neutrally: Rather, it is pushing this process forward to achieve results, and occasionally far overshooting any goal. A good example of this is the regulation of investment advice, which today renders it economically unviable for banks to advise investors with limited wealth and substantially narrows the investment options available to private investors, for example, in the bonds sector. In the end result, people often rely on Internet offers that turn out to be neither cheaper nor more trustworthy, despite the fictitious impression of market transparency created by Internet sites comparing the various offers. In this respect as well, the overregulation of the supervisory system is detrimental to the goals that regulators have set for it.

3. The “New” Banking System and the German Economic Model

Some aspects of the development outlined above may be interpreted as evidence of Germany’s long overdue convergence with the structures that have been implemented successfully in other European countries – that is, the abandonment of the German “anachronisms” that have long been the subject of complaint by European Union representatives. According to them, the German banking system is “outdated” and its structures must be fundamentally changed. These statements from a 2010 interview with then EU Commissioner for Competition Nellie Kroes have not been supported, however, by the markedly negative development of the Spanish and Italian banking systems, which had adapted their structures to those of other European countries. Irrespective of the possible causes of the developments in Spain and Italy, the question arises how such a banking system fits in with the unique structure of the German economy.

Compared to many other countries, small and medium-sized companies (the so-called *Mittelstand*) play a unique role in Germany. Many of these companies have advanced technological capabilities, in some cases in highly specialized niche sectors (“hidden champions”). Often these companies are not found in the large urban centers, but in small towns or even villages. A large percentage of these companies are family-run, and the employees and often also the management have strong ties to their region and are deeply committed to it. In addition, Germany also has some very successful centrally managed large corporations, and corporate groups with a broad product range and a relatively high degree of autonomy for their individual subsidiary companies. The number of companies listed on the stock exchange is relatively small, even though their size gives them considerable economic weight. The overall picture is one of great diversity, with a particular emphasis on *Mittelstand* companies and on decentralized and regionally focused economic activities.

The German economic system thus reflects the German banking system in key elements of its structure. This correspondence is neither inevitable (there are industries in Germany with a completely different structure) nor coincidental; rather, it is generic. The fundamental framework conditions and the design decisions that have led to the existing structure of the German economy and, in a corresponding process, to a banking industry geared toward the specific needs of this economy, are deeply rooted in German economic history. For this reason alone, the resulting structures cannot be changed without considerable frictional costs.

The German *Hausbank* relationship that has developed in this process plays an important role as a special form of relationship-based banking. Highly specialized companies in particular need a reliable financing partner for potential crises, as they often have highly concentrated business models. The *Hausbank* is a fairly reliable provider of this form of crisis aid, which cannot be contractually stipulated. Sometimes it does so quite reluctantly, because it means providing a kind of equity at the price of debt. But especially for regional banks, there is an additional strong incentive for providing crisis aid, apart from the risk of losing their economic reputation as a *Hausbank* and the general expectations of their social environment: they would have to at least partially internalize the social effects of a company bankruptcy in their region. The *Hausbank* crisis aid stands in marked contrast to lenders’ fundamental risk aversion and enables *Mittelstand* companies in Germany to pursue a more ambitious business policy.

This raises the question of whether, in a changed structure, large centralized banks or pure Internet banks could take the place of a regional *Hausbank*. For Internet banks, the answer is no, at least for the time being. The large German banks do enter into *Hausbank*-type relationships, however, and foreign banks also have an interest in the *Mittelstand* lending business in Germany. This may

even be a preferred solution, especially for large Mittelstand companies with international ambitions.

But especially in times of crisis, foreign banks tend to pull back into their home markets when taking on additional risks. Furthermore, many company-specific crises require discretionary management decisions on the part of the bank, which are often not possible at a middle level of a large bank's management hierarchy. In fact, at the large banks in recent decades, the once considerable power and decision-making authority of regional headquarters has gradually been curtailed in response to specific events of damage or loss (e.g., the Schneider scandal in 1994 and its effects on Deutsche Bank). The supervisory authorities tended to applause to these changes, as they seemed to provide a higher degree of safety. And finally, several decades of exclusive focus on shareholder value has damaged the reputation of some big banks as partners in long-term Hausbank relationships. The road back from this situation is arduous.

The changes in the banking system also affect companies' innovation behavior. I am aware that these impacts can only be described in very general terms that do not do justice to the situation or the special features of many companies. However, companies that do not have a Hausbank to rely on for financial backing must bring their innovations to the market as quickly as possible and penetrate the market accordingly. This allows them to access new sources of financing, for example, from the capital market, and to gain independence from bilateral financing relationships and an ability to cope with setbacks on their own. This consistent market orientation is a particular strength of the US financial and economic system and generates numerous marketable innovations. It is a source of great wealth in that country's innovation and finance hubs (in particular, Silicon Valley), which is tightly confined to specific geographic areas and relatively small numbers of entrepreneurs and staff.

Germany does not meet the conditions to be able to copy this model. It has neither a comparably abundant market for early-stage financing without bank involvement (venture capital) nor a correspondingly efficient capital market. Simply trusting that these markets would develop if there were sufficient demand is not a viable strategy for designing a financial system. Such markets and hubs are special economic institutions that require time to build and develop. The efforts being made in this respect within the framework of the European Capital Markets Union are commendable, but they also illustrate how difficult it is to create new structures. It should also be noted that German products enjoy a high reputation not because of their rapid market maturity but because of their unique quality. This quality is due to process innovations and a quest for perfection for which there is not much room in the market-oriented US system. And finally, the question arises whether the huge extent of social inequality as-

sociated with the US innovation model would be accepted in Germany with as little opposition as it is in the United States.

This discussion makes clear that in the medium term, the structural changes in the banking system triggered by technological change and banking supervision are jeopardizing the specific form of *Mittelstand* financing in Germany. The banking system that will likely emerge from this situation is uniquely unsuited to German conditions. It would lead to a loss of specific strengths without being able to offer any adequate compensation.

4. *Interim Conclusions*

The preceding sections contained a number of observations from which several concrete recommendations for action can be drawn:

1. The notion of the level playing field as a regulatory concept geared toward the individual financial product or transaction leads to zones of differing levels of security within European and national banking systems, as it neglects the non-contractual dimensions of financing relationships. A risk-oriented approach would necessarily lead to a differentiation of banking supervisory law, even if the resulting legislation is much more unwieldy and requires a great deal of independence and ability to resist pressure from lobbyists. Existing supervisory law contains differentiations, but they are insufficient.

2. European Banking Supervision was set up within the European Central Bank for reasons that are now only partially valid. To strengthen supervision and to make the European Banking Supervision more independent, it would be advisable to follow Wolfgang Schäuble's suggestion to remove it from the European Central Bank and establish it as an independent regulatory entity.

3. In Germany, the current supervisory system provides incentives for structural changes that are both detrimental to the efficiency of the German banking system and that increase systemic risk through greater concentration and homogenization of business models. This is another argument in favor of differentiated supervision, but also in favor of increasing the neutrality of supervision with regard to market developments and reducing the influence of banking supervision on banks' business policies and on the structure of the banking market.

4. In the present supervisory concept, small institutions in particular are placed at an unfair disadvantage by overregulation. The model of the "small banking box" should therefore be developed from a static concept into a dynamic process in which it is possible to not only sound out potential means of reducing the burden on small institutions, but also to swiftly and resolutely make use of these potentials. Here, clear targets should be set and promptly evaluated.

5. A much more ambitious approach would be to set the concept of supervisory aright and provide a coherent and straightforward supervisory regime for what could be defined broadly as smaller banks, while complementing this regime with additional rules for the larger and systemic banks. In this approach, systemic banks would become the exception, and only they would have to deal with the more complex requirements and far-reaching information obligations. A desirable side-effect of such a supervisory regime would be that through the elevated regulatory costs, the social costs of systemic risk would be at least partially internalized (in the sense of a “too-big-to-fail tax”) into the bank’s own decision-making sphere. It would become less attractive to exploit taxpayers through the implicit government guarantee provided to big banks, and ideally only those institutions whose business model requires would strive to become that large.

6. Another area that is being negatively affected by the current supervisory regime is that of the financing provided by banks to Mittelstand companies. Although the expansionary monetary policy of the European Central Bank seems to guarantee sufficient funds for lending to Mittelstand companies in the medium term, financing relationships are changing in character and are increasingly geared toward short-term opportunities. Particularly in Germany, banking supervision should make it attractive for banks to act as financing partners for Mittelstand companies in the long term. With regard to the capital requirements needed for this, banking supervision must ultimately be guided by the actual risk and should not offer discounts. In doing so, they should move beyond the spurious appearance of precision in model-based risk assessment and take into account the diversification effects that are not reflected in the model as well as the positive long-term effects of a Hausbank relationship. The scope of action available for banking supervision is, nevertheless, limited in this respect if the concept of supervisory capital requirements is not to be devalued overall.

7. To further promote Hausbank relationships, banking supervision should allow bank employees sufficient room to maneuver in their discretionary decisions, even when this means accepting some individual events of damage or loss. Only in this way can Hausbank relationships be revitalized, with the vitality currently being taken away from them by supervisory standardization and the bureaucratization of processes. Experiences during the corona crisis, in which this has apparently (and rightly) occurred to a considerable extent, should serve as a valuable starting point for a better supervisory regime in the area of traditional Mittelstand financing.

8. In principle, a consistent risk orientation in capital adequacy also implies taking the risks of unsustainable business models of banks’ clients into account. This aspect should therefore also be considered in banks’ internal credit ratings – as many banks probably already do. On the other hand, I would strongly

advise against any further consideration of this aspect by supervisory authorities, beyond the business-driven risk assessment of the bank. This could be done, for example, by reducing the capital requirements for lending commitments that achieve a certain sustainability rating or are active in politically desirable business areas. This would politicize regulatory capital requirements, which are a core process of banking supervision, or make these dependent on agencies whose sustainability ratings cannot be quantified in terms of economic impact and whose reliability cannot even be tested retrospectively.

At this juncture, it appears reasonable to conclude that, in general, Mittelstand companies are much more sustainable for a democratic society and social market economy – no matter how they deal with this topic internally – in multiple respects (e. g., competition, promotion of the economic development of the regions, social balance and responsibility for the community, tax payments) than large Internet corporations, with their market power that evades almost all control and their tax-optimized group and business structures, even if their sustainability rankings make them appear more attractive.

IV. Dynamics of the Regulatory Process

The enormous complexity of banking supervision and the issues and concepts associated with it appears to imply that a competent discussion of this topic can only take place among a small, select group of experts from the supervisory authorities as well as a few large banks and highly specialized consulting firms. This makes it much more difficult for national parliaments or the critical public to oversee the discussion, and this hurdle grows higher with each new round of regulation. Against this backdrop, why can we not simply trust the experts at the supervisory authorities, who are supposed to act in the public interest but who effectively ward off all possible criticism from “laypeople” by pointing to the great complexity of the topic?

If the supervisory process is viewed from a sufficient distance, it becomes clear that the, from a non-expert perspective, seemingly irrefutable standard-setting and regulation (or deregulation) activities are part of a comprehensive supervisory dynamic that has little to do with the respective justifications. This process follows a bureaucratic and political logic of its own that does not serve the public interest. Here, one can discern the rough outlines of a process of hysteresis with a long cycle and – unfortunately – increasing amplitude: Inadequately regulated or previously massively deregulated financial systems are prone to market failure. If a crisis occurs, it triggers a political reaction: The financial system is regulated. However, once the appropriate institutions and human resources have been created, an interest arises in maintaining and further expanding these bureaucratic structures. It is unlikely that an authority will vol-

untarily relinquish tasks, competencies or power. Especially in the field of banking supervision, one can also easily identify new risks and justify further expansion of that supervision. A banking system can of course never be made completely safe from risk, since its function as an optimized liquidity pool for an economy is inherently unstable (see Section II.4.).

We have clearly reached this stage of development today. The process of agenda-setting at the European level is generating a steady flow of new supervisory guidelines. The volume of supervisory texts, which was growing exponentially for some time, has now inevitably slowed down somewhat. However, any significant relief is only granted with the greatest qualms and reservations and is devalued by restrictions and additional safeguards. Even the relief granted in the corona crisis is subject to the proviso that regulations should be tightened further after the crisis. The specialists immunize themselves against public discussion through the use of hermeneutic language, including a well-developed system of special terms and acronyms, but also through the sheer complexity of the system they have created. Given their legal character, the standards have become ends in themselves and have increasingly lost their connection to the economic supervisory objectives they were created to achieve. Incidentally, a particular systemic risk can be identified in these developments. It is therefore all the more remarkable that it was possible for banking supervision to depart from this path in the corona crisis and grant the necessary relief. In doing so, it successfully prevented this form of systemic risk from being borne out.

Of course, it is not possible to make any reliable predictions about the future course of development, even if one can rely on past experience. It is to be assumed that the economic disadvantages resulting from overregulation – even in competition with other nations – will at some point become so extreme that a policy of deregulation will prevail, either through a change of power or a change of mind on the part of those in power. The first tendencies towards deregulation of the financial sector can already be seen in the United States and, in the context of Brexit, also in Great Britain. Deregulation may offer considerable efficiency gains and lead to a complete change in the public perception of the role of supervision and the government in banking. The higher the reached level of over-regulation, the faster and less thoughtful the deregulation process is likely to be. And in that situation it is to be feared that deregulation will be carried out equally indiscriminately in the future as a kind of political dogma. Profiteers will emerge to take advantage of the resulting abuses. They will use their political influence to push the deregulation process far beyond what is reasonable, leaving the cycle of regulation back where it started.

Due to the various internal logics that are currently reinforcing this process, it appears unlikely that political measures will be able to bring about an early and substantial course correction:

a) The technical capabilities for bank regulation have increased enormously in recent years.

b) European supervision is a joint European project, and the expansion of banking supervision will have to be maintained for political reasons alone. In addition, banking supervision offers potential for redistribution within the European Union, which may generate very specific interests.

c) A huge consulting industry lives off of banking supervision. In addition, a separate digital industry is emerging under the name of regulation technology (regtech), which is dedicated to the regulation of the financial industry. This means that, quite independently of the actual behavior of the companies concerned, there are massive economic interests in maintaining and expanding the business field of “banking supervision”.

d) In Germany, there are various authorities responsible for banking supervision. My subjective impression is that they are competing to see who will supervise the institutions under their purview the most rigorously. It may play a role that the European Central Bank has been given the final say on supervisory decisions, and national supervisory bodies do not want to appear weak in relation to it.

Are there ways to act in the public interest and break with the processual nature of regulation, and at least reduce the breadth of the regulatory process?

1. Public discourse on involving politics and science in regulation can help to raise awareness of its processual nature and of the need for countermeasures in the phases of both increasing and decreasing regulation. A particular problem here is the divergence between the levels of decision-making and discourse: Supervisory standards are created at the global and European levels. However, it will be difficult to draw the discourse on banking supervision out of the insular circle of experts and into a European public sphere that is, unfortunately, still relatively weak. My impression is that the key public political debates in Europe are still taking place at the national level.

2. The corona crisis should not be understood as a regulatory pause: It should be seen as a unique opportunity to introduce a new approach to regulation. The specifications and tightening of supervision, which were rightly suspended during the crisis, should be classified as “fair weather regulation” that did not pass the crisis test. This should be followed up by a more comprehensive evaluation of the existing supervisory regime that can also base its argumentation on the experiences gained during the crisis.

3. Ideally, this process should culminate in stronger banking supervision – with less bureaucracy and a streamlined set of standards, but with great discretion and a high degree of independence – that will be able to confront the inherent dangers of the financial markets and, on the basis of this strengthened insti-

tutional self-conception, stabilize the supervisory process against the over- and under-reactions of the present day.

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