

# Panel Discussion – Statements and Comments

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## 1. INTRODUCTION

There hardly ever is enough time for an exchange of views in conferences. One way of dealing with this is to end a conference in a Panel discussion. In this particular case, this was all the more advisable as it offered the opportunity to receive more information from the practioners of banking and of regulation.

In the first part of the Panel the participants were asked to give their personal views and priorities with respect capital adequacy regulation of banks. These statements are reprinted here.

The second part of the Panel was devoted to a general discussion between the participants, including MARTIN HELLWIG and myself as the Conference organisers. An attempt is made to summarise this discussion.

## 2. OPENING STATEMENTS

*Ernst Baltensperger*<sup>1</sup>

Do we need capital adequacy regulation (CAR) for banks, and if so, why?

In attempting to answer this question, we must start out by asking whether banks will, in the absence of regulation, choose suboptimal levels of capital. I believe that all serious arguments dealing with this question have to do with the issue of bank safety and the safety of the banking system.

A major argument claims that there are external effects of bank capital due to the presence of *systemic risk*: The failure of an individual bank may lead to problems for the banking system as a whole and the individual bank does not adequately take into account the external benefit of bank capital in lowering the probability of bank failures. Although banks have much consciousness of being part of a fragile system, and of the breakdown of this system being potentially disastrous to themselves individually, the danger of

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systemic risk and associated externalities cannot lightly be dismissed and is at the heart of the problem of bank regulation. Without this risk I see little reason why we should be more concerned about the failure of an individual bank than we are about the failure of any other firm. At the same time, it must be admitted that we do not really know enough yet about the relationship between individual bank failures and systemic problems. What precisely are the relevant propagation mechanisms? When is the risk of contagion high, when not?

A second, and related, argument says that there is excessive risk taking in the banking business due to improper pricing of deposit insurance and other (implicit) forms of government guarantees. Of course, the extent to which this problem exists depends on the attitude which government takes vis-à-vis the involved moral hazard. I believe that, even if this problem can be contained through a hard-nosed government policy vis-à-vis individual bank failures, it can never be entirely eliminated.

A third argument points to the insufficient capability of (the large number of small) bank customers/depositors to monitor the bank's activities and sees the role of the regulator as that of a representative (substitute) of the multitude of small bank creditors. However, I am not entirely convinced of this argument. If correct, it applies to many nonfinancial firms (with a large number of relatively small individual creditors) as well and does not justify *specific* regulation of banks and financial firms.

Because of the former two arguments, however, I answer my first question above with a *qualified* «yes».

Are there regulatory alternatives to CAR to deal with the underlying problem?

To the extent that the problem to be solved is due to improper pricing of implicit or explicit insurance or equivalent guarantees, it could also be solved via appropriate pricing in this area. I have long believed that a solution to the problem can be found along these lines. However, I have become rather sceptical in this respect more recently. The problem is not necessarily that such a solution is technically impossible. It is very difficult to enact politically, though. For practical reasons, thus, such an insurance is likely to be marred by adverse incentive effects. It should be mentioned nevertheless that the problems arising are similar to those one faces in appropriately designing CAR (as SHELDON finds, too). If the underlying problem goes beyond distortions in deposit insurance and government guarantees, it cannot be solved solely by measures in this area, of course.

Lessening the degree of competition in banking (via entry restrictions, interest rate ceilings, etc.) would make banks less vulnerable to negative return shocks and provide another alternative. However, this can hardly be seen as a desirable solution. It would lead to inefficient banking structures which, in the end, could increase the fragility and shock-dependence of the financial system on its own. Furthermore, it would be difficult to reconcile such a solution with today's internationalisation of financial markets.

Thus, CAR may appear as an acceptable kind of solution to the problem at hand. Of course, it must be supplemented with an adequate level of general supervision enforcing compliance with the law, and with attempts to lessen the underlying problem by increasing transparency and informational symmetry in financial markets. Nevertheless, CAR is not without its own difficulties. Possibly, we should also think about new ways of sharing risks between banks and bank customers (new forms of designing bank products with specified contingencies), therefore.

What form should CAR take?

CAR should be designed in a way which maximizes the likelihood of actually achieving its intended goals and minimizes the danger of undesired side effects.

*Existing* CARs are justly criticised in a number of respects (although improvements have been achieved over time):

- First, there is the danger of inappropriately dealing with different, mutually non-exclusive risks (credit risk versus market risks of various types) in a separate, additive way.
- Second, there is the danger of insufficiently taking account of correlation (or non-correlation) of different elements of bank profit (asset returns, expenses), disregarding portfolio diversification effects.
- Third, there is the danger of emphasizing too much just the volatility of returns, forgetting about expected return, bank costs including overhead, and the banks' ability to influence these factors. This point, along with the former two, implies the danger of being overly protective, which has its costs, too.
- Finally, there is the danger of choosing inappropriate risk weights, including in particular the danger of ending up with a system of direct, political credit allocation through setting arbitrary, politically motivated risk weights for different categories of bank activities.

In all these respects, I find the SHELDON proposal superior. I consider it a conceptually convincing and constructive proposal. Nevertheless, it may have some difficulties itself (as do all alternatives, of course):

- *Implementation.* I am not thinking so much about the computational difficulties which, although considerable, can be handled in principle. More serious is the fact that changes in the structure and type of a bank's activities will not automatically be reflected under this proposal in the capital adequacy requirement, in contrast to the RAR-approach, which automatically captures shifts in the bank's portfolio structure. Thus, the potential for hiding the real situation of the bank and for cheating is greater. This could be a problem especially in the case of banks approaching (or being in) a

situation of distress. Thus, the proposal puts a very high burden and responsibility on the supervising agency.

- *The choice of an upper limit on insolvency risk remains exogenous and essentially arbitrary.* It is an advantage of the proposal vis-à-vis existing regulations that, by setting  $P_i$ , it treats a bank's capital requirement ratio endogenously, depending on the specific bank's return characteristics. But, in principle, even  $P_i$  should be bank specific, depending on the degree and the likelihood by which that bank's failure is expected to be the source of external costs to the banking system as a whole. But this would probably go too far and be impractical. For practical purposes, it is hardly feasible to determine a socially optimal  $P_i$  for every bank  $i$  individually. One would have to use an ad hoc solution (possibly with a lower  $P_i$  for banks with a high contagion potential, but otherwise constant across banks). Of course, this kind of problem is intrinsically shared with every other type of regulation.

*Urs W. Birchler<sup>2</sup>*

1. This conference really deals with a capital question, namely the safety of banks and of banking systems. Capital requirements are a pillar of bank supervisory structures in most countries. It is therefore important that researchers, regulators, and practitioners learn from each other in a conference like this one.
2. In the area of bank capital and safety the stylized facts are not very comforting: The capital ratios of Swiss banks have steadily decreased since 1930. Swiss banks lost their former «pole position» in the international capital race. Deposit insurance has weakened depositor discipline, and state interventions to help troubled banks in many countries have helped to create too-big-to-fail expectations. New instruments make risk taking behind depositors' backs more and more simple. Supervisory and monetary authorities are well entitled to think about tougher capital requirements.
3. Why are capital requirements so important? Sufficient capital is not only a cushion against unexpected losses. It also provides incentives to control and limit a bank's risk. The shareholders' limited liability to debt-holders is equivalent to an option (a call on the value of the firm with the nominal value of debt as an exercise price), the value of which (1.) increases with the volatility of a firm's assets, and (2.) does not decrease to the full amount of dividends paid out. Therefore, shareholders can enrich themselves (to the detriment of debt-holders) by increasing a firm's risk and by taking dividends. The incentive to do so is strongest when the option is «near the money», i.e. in firms with low capital ratios or, most typically, in banks. Capital requirements therefore try to limit moral hazard by banks' shareholders.
4. Capital requirements are Siamese twins to closure rules or – more generally – to early intervention rules. They only become effective if the supervisor is ready to take

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immediate measures against an undercapitalized bank. CHESNEY and GIBSON (1993) also show that the shareholders' incentive to increase a firm's risk is much weaker under strict closure rules.

5. What are the costs of capital requirements? There is a unison complaint among practitioners about the cost of capital. Researchers, in contrast, have hardly succeeded to find arguments that support these complaints. It is difficult to show why the Modigliani and Miller Irrelevance theorems should not apply to banks. MILLER (1995) thinks they quite do. (The portfolio choice argument in THOMAS GEHRIG's paper to this conference to my opinion implicitly assumes a violation of the M&M proposition.) The question whether banks (and insurance companies) have to be highly leveraged firms might deserve further research.
6. Given some discomfoting stylized facts, the rather strong case for capital requirements, and the difficulty to prove that for a bank capital is more expensive than debt, I favor a prudent increase in required capital levels in Switzerland as well as internationally. I will perhaps not receive much applause by bankers. I did receive some when, in 1988, I argued against higher capital ratios for mortgage credits in Switzerland pointing to the small risk of that business and to the unfair burden that would be laid upon regional banks. But I could not have been more wrong.

*Andrew Crockett*<sup>3</sup>

Financial intermediaries are in the business of accepting risk when they judge that the rewards of risk-taking outweigh the costs. Financial supervisors are in the business of controlling negative externalities of private risk-taking – externalities that may arise either from systemic disruptions or from costs borne by taxpayers in averting such disruptions.

To perform their role, supervisors engage in a variety of activities that can in turn create unintended externalities. In particular, they can have effects on incentives and competitive efficiency.

Concern with competitive efficiency has come to the fore only recently. Traditionally, the primary concern of financial supervision has been to protect the soundness of the financial system. Four main ways of doing this are available:

1. One is to underpin the profitability of financial intermediaries through restraints on competition and access.
  2. A second is to provide a safety-net of implicit or explicit central bank support.
  3. A third is to directly limit the risks banks are allowed to assume, say through restricting fields of activity or the size of exposure.
  4. A fourth is to require minimum capital holding against the risks that are accepted.
3. General Manager, Bank for International Settlements, Basel.

All of the above approaches have been used by supervisory authorities at one time or another. However, the first three have obvious shortcomings on efficiency grounds. Restraints on competition provide an endowment income to banks by, in effect, taxing bank customers. An official safety net subsidises banks (they can hold less capital) by transferring to the taxpayer the function normally performed by capital. And restraints on banks' risk-taking forces bank customers to forgo certain transactions or to go to less efficient intermediaries.

Quite apart from the external economic costs of these methods of protecting the banking system, their practical feasibility is being undermined as a result of capital market integration. If banks in one jurisdiction are regulated, their customers can go to other jurisdictions or to unregulated forms of financial intermediation.

So the most promising approach to regulating banks is to ensure that they are adequately capitalised against the risks they run, and to see that capital requirements are adequately harmonised across countries. Once again, different approaches are possible; the ones that are currently used can be divided into two main categories.

1. The «building block» approach involves dividing individual risks into different classes, assigning capital requirements to each and adding them up. This is the approach followed in the Basle capital adequacy rules for credit risk. It has the advantage of being conceptually straightforward and computationally tractable. It has the drawback of not reflecting adequately the differing characteristics of assets within individual risk categories, and not reflecting at all correlations among individual risks. It creates incentives to structure portfolios in ways that reduce capital requirements, even if risk is thereby increased.
2. The second approach is the portfolio approach. It is the philosophy behind the recent Basle proposals on market risks. Its virtue is that it aims to take account of risk interdependencies and to use statistical estimates of loss probabilities. The drawback of this approach is that supervisors are inevitably driven to use the in-house models of banks, and these models may depend on questionable assumptions.

What does the future hold? There can be little doubt that the portfolio approach is conceptually more satisfactory, since it permits a closer relationship between the amount of capital held by an institution and the overall risk involved in its operation. Supervisors should therefore be open to innovations that allow greater reliance on the total portfolio approach to measuring risk.

A portfolio approach is already visible for the treatment of market risk. For credit risk, which accounts for much of the greater part of banks' risks, the problems are more formidable. It would be unrealistic to expect any modification of current Basle rules in the foreseeable future. In the longer run, however, the task of practitioners and supervisors alike will be to refine their analysis of the nature and interrelationships of *all* risks in their portfolio. In this way, the scarce resource of capital will be increasingly efficiently employed and the banking system made sounder.

An adjunct to this effort is greater public disclosure. If banks are increasingly allowed to use in-house models, a corollary is that the public should be allowed access to the information needed to judge banks' appetite for risk, and their practical success in managing it.

*Hans Geiger*<sup>4</sup>

1. What follows is my personal view, which is based on 25 years of practical experience with Crédit Suisse. It is not necessarily Crédit Suisse's official opinion.
2. Regulation of capital adequacy and large exposures is one (and only one) element of a framework for bank supervision. Capital adequacy rules should be simple and robust in the sense of the 80 : 20 rule. It is a mistake to put too much emphasis on these quantitative elements alone.
3. The other four elements which are necessary to this framework are:
  - Discipline by the markets and competition: Make the position and activity of banks *transparent* to customers, analysts and shareholders. Accounting and reporting standards, auditors, financial analysts and rating agencies play an important role in this context.
  - High professional and ethical standards in the banking sector must be ensured by self-regulation and/or external regulation.
  - Regulators should use the accounting profession to supervise and monitor the development of banks and the banking industry in a flexible and individual way. This is an important part of the Swiss concept of prudential banking supervision.
  - Prudential supervision should be harmonized and co-ordinated between the large economies and the major financial centers.
4. Elements that should be avoided are public deposit insurance, state guarantees and other techniques which involve protecting banks (or customers) with taxpayers' money. This includes implicit government guarantees.
5. The new BIS-concept of *choice* between the uniform «building block approach» and the «use of internal models» is a profound innovation in the philosophy of regulation (market risk capital proposal).
6. There is excess capacity and capital in the banking systems of the developed world. Inevitably, the adjustment of capacity and capital will involve further bank closures, takeovers and failures. Bank supervision should not hinder this adjustment process, but should help to avoid large systemic risks and depositor losses. Capital adequacy regulation should not safeguard banks, but it should provide a financial buffer to minimise the risk of major depositor losses when failing banks are sold or liquidated.
7. Traditional banking deposits are continuing to lose ground to new forms of investment (capital and money market products, investment funds, etc.). This trend could pave

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the way for a new concept of capital adequacy regulation for depositor protection which could be cheaper than the present attempt to include all activities of banking: With «narrow banking» the deposit-taking arm of a bank could be isolated by solid firewalls from the other activities of the bank. Depositors in the «narrow bank» would have to accept lower returns on their savings in return for the improved protection.

*Kurt Hauri*<sup>5</sup>

In my initial statement, I would like to put forward some critical and provoking ideas about the development of the capital adequacy rules and the capital ratio of Swiss banks:

1. The capital adequacy regulation has become a highly technical and complex subject. The new rules concerning credit risks and in particular the planned amendment to incorporate the recommendations of the Basle Committee on market risks demand a lot of banks, audit firms and supervisory authorities. Actually, only specialists can completely understand and have a broad overview of the existing and the proposed regulation. Despite its complexity and the use of sophisticated and scientific methods, I have mixed impressions concerning this trend of regulation. Does it not pretend a fictitious exactness? Two aspects lead me to this question. Firstly, the proposals of the Basle Committee for the supervisory treatment of market risks are partly based on models and statistical parameters. Hence it's not wrong to talk of a «modelling risk», I mean the risk that the models developed by some «rocket scientists» later turn out to be wrong. Furthermore, there is an obvious discrepancy between the relatively simple minimal standards on capital adequacy for credit risks and the sophisticated proposals on capital adequacy for market risks. Is it really justified to refine more and more the capital adequacy rules? Do the new rules ensure (guarantee) a better protection of the bank creditors? I shall leave these questions unanswered.
2. Considering a longer period of time, the capital ratios of Swiss banks strongly decreased. This happened despite the increase of new risky business like trading with derivative products. At the same time, according to the last non-released (internal) report of the Basle Committee on G-10 banks' capital ratio, Swiss banks are loosing their leading position. It is true that the international harmonization of banking supervisory regulation is a good way to diminish existing sources of competitive distortion among international banks. However, minimal standards – when elaborated – often show too much consideration for countries with low capital adequacy standards. As a consequence, minimal standards put considerable pressure on a single country to reduce its requirements whenever they are higher. Following this trend, Switzerland has gradually reduced its standards. Therefore it is not surprising that the levelling has taken place downwards. Such a development has so be stopped. The

5. Chief Executive, Federal Banking Commission, Bern.



trend of regulation should change and the capital ratio of Swiss banks should be strengthened.

3. The capital adequacy rules are one of the central regulatory instruments of banking supervision. Sufficient capital creates a buffer against losses and helps to reduce bank failure risk. However, banks, regulators and depositors should not believe themselves to be safe. The isolated assessment of the capital ratio can lead to wrong conclusions with respect to the soundness of a credit institution. An adequate organization, an efficient monitoring system and a qualified management are just as important as the capital ratio. You can't pay enough attention to those other elements. At the end of the day, even if we had the best regulation and perfect examination procedures, above all the human factor in the banks is decisive to the success or the failure of a bank.

### 3. GENERAL DISCUSSION

MARTIN HELLWIG first observes that every statement affirmed the need for capital adequacy regulation. However at least three different reasons were given. BIRCHLER and HAURI advocated particularly stringent capital requirements for Swiss banks because this would enhance the attractiveness of Swiss banks relative to banks elsewhere. GEIGER saw capital as a buffer to protect depositors. BALTENSPERGER and CROCKETT finally stressed the incentive effects of capital requirements. With so much diversity in the reasoning, how can one be so sure of the conclusion?

He then went on to pose two additional questions: 1. What is the scope for capital adequacy regulation of banks when banks are in competition with other financial institutions outside the domain of capital regulation, some of them perhaps even invented in response to the regulation? 2. Where should one be most concerned about risk? In the area of derivatives or in the area of traditional banking operations? Whereas public attention seems to have focussed on the former, the largest losses in recent years have been in standard credit operations rather than derivatives.

GEIGER came back to the issue of the purpose of capital adequacy regulation and said that their aims needed to be restricted in order to make them useful. Capital requirements can contribute much less to the safety of banking in general than to the protection of the unsophisticated depositor. Also, the more sophisticated clients do not need any protection since they are able to care for themselves. In addition, regulation should not focus on institutions, e.g. on banks, but on activities, e.g. on deposit taking and lending, on securities trading etc., otherwise banks will be economically handicapped in the provision of some financial services if non-banks are regulated less or not at all. Whether or not these services are produced by a universal bank or by separate companies bound together in a holding structure or by totally independent companies should be left to the market. This should not be a regulatory issue. The only requirement that will have to be met is that of sufficiently safe fire-walls. And here again it is the small depositor who needs most of the protection.

In an apparent contrast to the unanimity regarding the necessity of public capital adequacy regulation CROCKETT stated that under conditions of perfect markets, market forces would induce banks to hold sufficient capital to cover the depositors' demand for loss protection. Obviously, in reality the conditions for perfectly functioning markets are not fulfilled. Therefore, public regulation is inevitable. But in line with economic theory the purpose of regulation is to induce banks to hold an amount of capital that corresponds to the riskiness of their portfolio of assets. The Basle Standards try to do just this. There are shortcomings. The standards must be improved. Eventually, however, the capital that is held by regulated institutions ought to be equal to that brought about under perfect market conditions.

This goal also applies to the regulators of non-banks. The more the regulators of banks and those of security houses pursue the same goals, i.e. to secure amounts of capital which are in line with the riskiness of the portfolios held, the less banks will be discriminated against.

What regards the relative size of risk in credit operations as compared to risk in trading operations it is true that the former has not only been greater in the past but is also more difficult to assess statistically. So it is difficult to see how the risk in credit operations could be adequately reflected in economic models.

Nevertheless, BALTENSPERGER mentions again that the proposal presented by SHELDON, who asks for a more general model approach, is interesting and should not be discarded merely with reference to statistical or computational difficulties.

Other comments were made from the Floor.

FRANKE suggests that there ought to be complementarity between the activity a bank pursues and the instruments it uses to assess and manage risk. So banks that are active in derivatives trading could be required to develop and implement internal models which reflect «best industry practice» for calculating Value at risk.

Rising capital requirements might lead to higher costs in banking. The question then would be: who pays? In principle, the clients will react according to the perceived additional security linked with higher bank capital. If extended capital leads to increased security one can expect the bank customer to be willing to pay for it. But if banks are prevented by politics from increasing the prices of their services even efficient adjustments might prove costly to banks. WUFFLI mentions mortgage rates in Switzerland. It is difficult to see how banks could shift costs to the debtors, even if this was totally justified economically.

BIRCHLER accepts the problem, but has difficulties to see whether the cost of capital can be important. He mentions the Modigliani-Miller proposition according to which the value of a company to the stockholder does not depend on its gearing ratio, but he admits that the strict conditions of the underlying model might not be sufficiently met in practice. He then thinks that there is much sense in increasing capital standards in an internationally harmonised way. Yet he nevertheless likes the perspective of the Swiss banks to regain their traditional first rank in capital ratios.

HAURI mentions the costs due to less than sufficient capital. These stand for the other side of the coin. He cites examples of banks that had to be taken over by other banks because of a capital shortage, sometimes at great cost. This could have been prevented.

However, it seems appropriate to distinguish between those costs that are carried by the shareholders and by the staff of the bank in difficulties and those carried by the shareholders of the acquiring bank. GEIGER points out that the takeover of Swiss Volksbank is regarded as a very good move by Crédit Suisse because it permitted Crédit Suisse to leave its position as number three – an uncomfortable position in a mature mass market. As long as the price paid for a takeover reflects the expected profitability of the investment correctly, and he thinks that this is so in the case of Swiss Volksbank, there is no undue cost to the shareholders of the acquiring firm, i.e. to Crédit Suisse.

In a final round of statements the speakers of the Panel made a number of further points.

GEIGER stressed the inherent relationship between the quality of the regulator and the level of the capital adequacy requirements. There exist different ways of making sure that the depositor is protected. The less adequate the rules of the banking law are, the more mistakes authorities commit in supervision etc., the higher the capital requirements need to be to protect the unsophisticated depositor against the consequences of insufficient laws and of their faulty application. Raising the capital ratio from, e.g. 4% to 8%, says as much about the supervisors than about the supervised.

To BALTENSPERGER the idea of harmonising capital standards internationally is not without important drawbacks. The simultaneous existence of different regulatory regimes in different financial centres makes regulatory competition possible. This is a particular advantage, since today's Conference once again proved how little we know about what optimal regulation is. If different systems co-exist, the agents in the market decide where to supply and demand financial services. Financial services will be driven to the centres in which the ratio between the costs and the benefits of regulation is highest. Externalities may prove a problem. But, as long as regulation provides value to the regulated and/or to the protected, one need not expect outcomes of this competitive process in which the degree of regulation will be much too small.

HAURI reminded everybody of the crucial importance of human resources in banking. Looking back at the history of structural change in Swiss banking he identifies management problems as the source of every single crisis in a bank in recent years. Not once the problem started with a lack of capital. Therefore, to take up HELLWIG's question of the relative weights of different categories of risk, he concludes that the most serious risk in banking is that connected with the insufficient quality of management.

To CROCKETT these so-called «operational risks» are of obvious importance, but would need to be treated separately. There remains the question of how to deal with the risk associated with a portfolio of activities in a bank. Capital adequacy rules should induce banks to hold capital which is adequate to the structure of the portfolio and not just to its size. This clearly asks for further improvements in existing rules. On the other hand it appears a rather simple notion to ask for across the border calculations of the

Value at risk when one recognises the difficulties of assessing credit risk correctly in economic models.

Finally, from the point of view of those doing the research, HELLWIG expressed satisfaction that the discussion of capital adequacy regulation had changed from what it was a few years ago. Whereas a few years ago, everybody knew exactly that there was no need to ask questions about the usefulness of capital adequacy regulation, today everybody seems to see open issues and ask questions. This is a much better condition for progress.

#### LITERATURE

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