Final report

of the Commission of Experts for limiting the economic risks posed by large companies

30 September 2010

In case of any discrepancy between the original German text and the English translation, the German text shall prevail.

Table of contents

Summary

Large companies play a major role in the Swiss financial sector. In banking, above all – with the two big banks – large companies are dominant. The recent global financial and economic crisis has shown that a significant threat to the entire economy can be posed by a systemically important bank that encounters serious difficulties. These problems not only endanger the stability of the financial system but directly affect all sectors of the real economy. The failure of such a financial institution thus poses a systemic risk. In the event of a crisis, therefore, the state cannot, and will not, allow such an institution to fail if the maintenance of systemically important functions is not guaranteed. In other words, the institution is "**too big to fail**" (**TBTF**) and therefore enjoys an implicit state guarantee.

Unless measures are taken to reduce the risks emanating from systemically important large companies, state rescue packages will continue to be needed in future crises. In extreme cases, however, they could overtax the ability of the affected states to take financial action and could constitute a significant risk for their economy and for the stability of the international financial system. It is for this reason that sustainable measures are urgently required to limit the systemic risk emanating from large companies.

It was against this backdrop that, on 4 November 2009, the Federal Council established a **Commission of Experts to examine the question of limiting the economic risks posed by large companies** (hereinafter "Commission of Experts"). The commission was mandated to (i) define the term TBTF; (ii) to analyse the benefits created by large companies in all branches of the economy and the consequences of a failure for the economy; (iii) to show how the risks that large companies pose to the economy could be minimised, and finally (iv) to present possible approaches and priority measures.

At the end of April 2010, the Commission of Experts published an interim report with provisional conclusions. It identified the two big banks as the important TBTF companies in Switzerland. In a public statement of its position, the Federal Council expressed its support for the general thrust of the interim report and underlined the importance of the measures presented in it. It advocated further specification of the proposed core measures and a detailed examination of the other measures discussed in the interim report.

The present report opens with a summary of the background, the mandate of the Commission of Experts and the measures already taken in Switzerland. This is followed by a brief review of international discussions regarding the regulation of systemically important banks in order to put Switzerland's situation in context.

The point of departure for an analysis of the TBTF problem is the **definition of systemic importance**: a company can be classified as systemically important if (i) it provides services that are essential to the economy and (ii) if other market participants cannot replace these services within a period of time that is tolerable for the economy. This definition can be applied in practice by looking at specific criteria of size, market concentration, interconnectedness and limited substitutability. Outside the banking sector, there are currently no companies in Switzerland that can be classified as TBTF. However, within the banking sector – because of the serious economic risks posed by the implicit state guarantee for the big banks – specific measures to counter the TBTF issue are urgently needed.

Given the complexity of the TBTF problem, the report proposes specific measures in four core areas:

I. Capital: a comprehensive concept for capital is presented and specified. Three capital components form the core of the concept, which should significantly strengthen the liability coverage of systemically important banks.

- The minimum requirement for the maintenance of normal business activities.

- The buffer, which allows banks to absorb losses without falling short of the minimum requirement and without having to suspend normal business activities. This takes into account the risk profile and the loss potential of banks.

- The progressive component, which on the one hand ensures that systemically important banks have a particularly strong capital base. On the other, this component gives a bank the financial freedom of manoeuvre to deal with a crisis through implementation of a prepared emergency plan. In addition, the progressive component should create an incentive for a bank to limit its systemic importance. To achieve these goals, this component rises progressively in keeping with the degree of systemic importance – as measured by the balance sheet total of the bank and its market share in relevant areas.

New capital instruments (reserve and convertible capital) are used for implementation. The successful launch of convertible capital should be effectively supported by a Swiss bond market that is competitive and functioning well. This would require an improvement in tax conditions. The new concept applies both to the risk-weighted capital ratio and to the minimum capital level as a proportion of the balance sheet total ("leverage ratio").

For the risk-weighted capital ratio, the Commission of Experts sets out the following minimum requirement specifications:

- Based on their size and market position at the time of writing, the total capital requirements for Credit Suisse and UBS amount to some 19% of risk-weighted assets as per Basel III.

- 10% of the risk-weighted assets must be held in the form of common equity (capital of the highest quality in the form of paid-in capital, disclosed reserves and retained earnings following deduction of regulatory adjustments, e.g. goodwill and deferred tax assets).

- For 9% of the risk-weighted assets, the two large banks can issue contingent convertible bonds ("CoCos"). These bonds are automatically converted into common equity when a bank's common equity ratio drops below a predefined level (trigger).

These requirements are substantially more rigorous than the current requirements and the minimum standards of Basel III.

II. Liquidity: proposals concerning liquidity requirements largely correspond to the reforms that have already been implemented since the publication of the interim report. The liquidity regime that entered into force for the large banks in June 2010 was drawn up in the form of an agreement that made reference to the ongoing work on the TBTF issue. It is proposed that the principles agreed there should now be given legal form.

III. Risk diversification: measures to improve the diversification of risks are part of the adjustments also envisaged in other jurisdictions, notably the EU. One of the objectives of these measures is to reduce the degree of interconnectedness within the banking sector and thus to limit the dependence of other banks on systemically important banks.

IV. Organisation: ensuring the maintenance of systemically important functions is based on guidelines for preparatory organisational measures to guarantee the resolvability or the resolution of a systemically important bank in the event of a crisis. As the organisational measures constitute substantial interventions in economic freedom and the guarantee of ownership, the subsidiarity principle should be applied. It is the responsibility of the systemically important bank concerned to organise itself in such a way that maintenance of systemically important functions would be guaranteed in the event of a crisis. However, if the

bank is unable to demonstrate its ability to maintain systemically important functions, the supervisory authority should order the necessary organisational measures to be taken.

A key role is played by the combined impact of the measures relating to capital and organisation. If a systemically important bank's capital ratio falls below a certain level, the emergency plan is triggered. This means that the systemically important functions are rapidly transferred to a new legal entity. At the same time, the convertible capital that the bank has to hold as part of the progressive component is converted into common equity. This ensures that the emergency plan is carried out with an adequate capital base. If a bank exceeds the minimum organisational requirements and thus improves its resolvability, it will receive a corresponding capital rebate in recognition of its efforts.

With the above-mentioned core measures, the Commission of Experts has identified those measures that most effectively reduce the risks associated with systemically important institutions, without unnecessarily restricting the economic freedom of manoeuvre of the affected banks. The measures have an impact in different areas. In part, they have a preventive effect and are designed to prevent insolvency. In part, they have a curative effect and are designed to minimise the negative repercussions of an insolvency, while at the same time ensuring the maintenance of systemically important functions in the event of insolvency so as to prevent the state from being forced to save an entire bank simply so as to secure these functions. The bankruptcy of a systemically important bank is therefore envisaged as a real possibility, thereby removing the distorting effect of an implicit state guarantee. Due to their different objectives and different points of application, all of the core measures are necessary if the TBTF problem is to be tackled effectively. The Commission of Experts has therefore synchronised the core measures and accordingly proposes a **package of measures (policy mix)**.

The proposed package of measures is compatible with the recommendations of the Basel Committee on Banking Supervision and the ongoing work of the Financial Stability Board to reduce systemic risks in the financial system.

Legislative adjustments are necessary for this package of measures to be implemented. The Commission of Experts has therefore drafted a **partial revision of the Banking Act**, which creates the necessary legal foundations for this implementation.

The evaluation of the **economic repercussions** of the package of measures was based on the existing studies of the Basel Committee on Banking Supervision and the Institute of International Finance. Despite all the uncertainty, a cost/benefit analysis clearly indicates that the net effect of the proposed package of measures will prove positive. The economic benefits of the package of measures include (among others) improved crisis prevention and more consistent implementation of the originator principle (risk assumed by owner and capital provider and not by the taxpayer). Where the implementation of the capital requirements is concerned, the deadlines set by Basel III (staggered introduction with completion at the end of 2018) will apply.

Further measures should be taken to additionally increase financial stability. Additional improvements should be achieved in Swiss bank insolvency law with the ongoing revision of the Banking Act. The key aims of this revision are to make the procedure more flexible, maintain individual bank services by transferring important functions to a "bridge bank", and ensure simplified recognition of foreign bankruptcy orders and other restructuring acts of foreign authorities. At the same time, attempts to improve international coordination should be strengthened. In the area of market infrastructure, improvements should be made by introducing central counterparties for over-the-counter derivative transactions (derivatives traded outside an exchange between two market participants).

A **number of other** measures currently being discussed at the international level were analysed but not pursued further because they would interfere excessively with the banks' business models, would create false incentives or did not seem to be a suitable means of combating the TBTF problem effectively and efficiently.

The final report will be submitted to the Federal Department of Finance for the attention of the Federal Council, in performance of the mandate given to the Commission of Experts.

The Commission of Experts recommends rapid implementation of the proposed package of measures.

1 Introduction

1.1 Background

Large companies play a leading role in the Swiss financial sector. Particularly in the banking sector, large companies, notably the two big banks, occupy a dominant position. The two leading banks account for a significant share of the domestic market, and their business activities span the globe. The recent global financial and economic crisis has demonstrated that the difficulties of a systemically important financial institution pose a serious threat to the entire economy. They not only endanger the stability of the financial system but directly affect all sectors of the real economy. The failure of such a financial institution therefore poses a systemic risk.

In the event of a crisis, the state cannot, and will not, allow such an institution to fail if the continuation of systemically important functions is not guaranteed. In other words, the institution is **too big to fail** (TBTF) and therefore enjoys an implicit state guarantee. The recent financial crisis revealed that numerous banks are classified as TBTF. In the course of the crisis, more than two thirds of the 100 leading banks worldwide received state support.

When the state classifies a company as TBTF and therefore has to support it in the event of bankruptcy or the risk of bankruptcy, a central sanction of the market is nullified. This creates incentives for investors and financial institutions to take a careless approach to risks. In many instances, the state support measures had a considerable, and sometimes a dramatic, impact on the state budget, and they will limit the fiscal room for manoeuvre of some states for years to come. The mere knowledge that certain institutions are potential recipients of state support can lead to market distortions and the inefficient use of resources.

Unless measures are taken to combat the risks posed by systemically important large companies, state stabilisation measures will continue to be needed in future crises. Such measures are likely to impose an excessive strain on the ability to act of the states concerned. It is for this reason that lasting measures are urgently required to combat the systemic risks posed by large companies.

1.2 Mandate of the Commission of Experts

The Swiss government and the Swiss National Bank (SNB) made a crucial contribution to the stabilisation of the financial system with the significant financial support that they provided in the recent crisis. The state intervention to support UBS averted serious damage to the economy. The directly attributable financial effects of this kind of intervention can in fact prove to be small. The Confederation was able to dispose of its investment in UBS with a profit of CHF 1.2 billion. The performance of the StabFund set up by the SNB will ultimately be known only when it has been liquidated. This investment nevertheless brought with it considerable risks for the taxpayer.

It was against this background that a series of parliamentary initiatives was put forward calling for efforts to reduce the risks posed to the Swiss economy by large companies. In response, on 4 November 2009, the Federal Council established a **Commission of Experts**

to limit the economic risks posed by large companies (hereafter "Commission of Experts").[1]

The Commission of Experts was mandated to produce a report by autumn 2010 which would:

- define the term "too big to fail" and analyse possible variants;
- analyse the benefits contributed by large companies in all sectors of the economy and the consequences of the collapse of such a company for the economy as a whole;
- indicate how the risks posed to the economy by large companies could be reduced, while taking appropriate account of profitability and competitiveness;
- propose possible approaches and priorities for action.

At the end of April 2010, the Commission of Experts produced an interim report. In a public statement of its position, the Federal Council expressed its support for the general thrust of the report and underlined the importance of the main measures proposed in the report with regard to capital, liquidity, risk diversification and ways of ensuring the continued operation of systemically important functions. It said that it regarded the draft bill proposed by the Commission of Experts as a basis for further legislation by the Confederation, and it called for the substantiation of the key measures and a detailed examination of the other measures discussed in the interim report.[2]

Following its evaluation of the interim report, the Federal Council presented to parliament its dispatch of 12 May 2010[3] on the planning of measures to limit the risks to the economy posed by large companies. It also set out a timeframe for further steps. At the same time, the submission deadline for the Commission of Experts' final report was brought forward to the end of August 2010, and at a later date to September 2010, in the interests of taking into account the decisions of the Basel Committee on Banking Supervision (BCBS). However, the planning decision was rejected by the National Council and by the Council of States at the beginning of June 2010. At the same time, a motion was proposed in the Committee for Economic Affairs and Taxation of the National Council which also mandated the Federal Council to implement measures to limit the risks posed by big banks.[4] This motion was accepted by the National Council, but its discussion was suspended by the Committee for Economic Affairs and Taxation of the Council of States.

---

1 In the motion "Prevention of unacceptable risks for the Swiss economy" (08.3649) of 3 October 2008, the parliamentary fraction of the Swiss People's Party called on the Federal Council to establish a high-level Commission of Experts to include representatives of Swiss financial institutions, the Swiss Financial Market Supervisory Authority (FINMA), the Federal Finance Administration (FFA) and the SNB. In the 2009 summer session, this motion was by referred by parliament and forms the basis for the establishment of the Commission of Experts. A list of the commission members can be found in Appendix A1.

2 Cf. Federal Council press release of 28 April 2010.

3 Cf. Federal Gazette 2010 3367.

4 Urgent motion "Too big to fail" (10.3352) of 21 May 2010 of the Committee for Economic Affairs and Taxation of the National Council.

1.3 Measures already taken by Switzerland

By international standards, the Swiss Federal Banking Commission (SFBC) had already established more rigorous minimum capital requirements for the institutions under its supervision. In the course of the financial crisis, however, banks suffered substantial losses in proprietary trading and as a result Swiss regulation, which was generally regarded as conservative, proved to be far too lax an instrument for regulating capital investments. In autumn 2008, the SFBC, in close cooperation with the SNB, adopted two key measures to tighten up the capital regime for the big banks UBS and Credit Suisse. Minimum capital requirements were raised and were complemented by an unweighted capital requirement.

- Supported by the **increased capital buffer** (target: 200% and intervention level of 150% of the minimum requirement according to Basel II), the risk of crises can be reduced, if not eliminated; any losses can be better absorbed.

- The **leverage ratio** (debt-to-equity ratio) as a measurement that is risk-independent limits the part of the balance financed by debt capital. It should be noted that domestic lending activity, which is important for the economy, was not included in this measure.

Essential in real terms and effective for building confidence, both measures have to be implemented gradually by 2013, taking into account the condition of the financial markets. Both big banks currently meet the minimum requirements. The achievement of requirements going beyond this for good times and longer-term compliance with the minimum requirements will be closely monitored by FINMA.

A new **liquidity regime for both big banks** entered into force on 30 June 2010. The key feature of the new liquidity regime is a rigorous stress scenario jointly defined by FINMA and the SNB. It assumes the occurrence of a general crisis on the financial markets at the same time as a loss of confidence in the bank by creditors. The new liquidity requirements stipulate that the big banks should be able to cover the outflows estimated in this scenario for at least 30 days. This would be done primarily by creating appropriate reserves in first-class liquid assets.

The big banks are subject to stricter supervision rules, which take the form of a wider set of supervisory instruments combined with stricter and more intensive supervisory actions than those which apply to other banks. In the course of the crisis, the banks already took action to improve their risk profile. Moreover, liquidity risks have been reduced by the replacement of short-term by longer-term refinancing. Risk management and risk controls have been revised and improved. To improve preparedness for a possible future crisis, the big banks have strengthened their emergency plans in the areas of capital, liquidity and financing as well as business continuity, and have partly adapted their business models.

For all financial institutions, FINMA applies a supervisory concept which is graded in terms of risk. In implementing the lessons learnt from the financial crisis, FINMA has introduced new elements into its banking supervision.[5] An important new principle is the use of comparisons across banks instead of focusing solely on the big banks. The aim here is to better understand and to evaluate business models, strategies and risks. In this way, it is possible to set minimum standards more precisely. In the area of big bank supervision, FINMA has increased its staff numbers and at the same time its practical knowledge. Organisational changes such as flatter hierarchies and shorter lines of communication contribute to the goal of making supervision efficient and effective. The number of inspections carried out by FINMA has been increased. In addition, loss potential analyses have been carried out

[5] Cf. FINMA, "Financial Market Crisis and Financial Market Supervision", 14 September 2009.

regularly in both big banks, the aim being to identify the losses that the bank could suffer in various stress scenarios and to gauge the banks' ability to respond to such difficulties with their own capital resources. The most recent analysis by FINMA shows that, according to current rules, the capital ratio in both big banks is sufficient to deal even with serious stress scenarios.[6]

While the measures taken to date are a step in the right direction, they are not enough to significantly reduce the distortions caused by the implicit state guarantee. Above all, it remains unlikely that in the worst case a systemically important financial institution could be stabilised or could be wound up in an orderly manner without state support. Therefore, the present report proposes additional measures that could help to permanently limit the risks posed to the economy and to the stability of the financial system by systemically important institutions.

1.4 Present state of international discussions

The collapse of the US investment bank Lehman Brothers in autumn 2008 rocked the international financial system. Numerous governments – especially in industrialised countries – were forced to support the markets and individual banks by means of substantial capital injections, guarantees and the acquisition of illiquid assets. At the same time, the major central banks sharply reduced interest rates and provided generous liquidity assistance through unconventional monetary policies. In addition, many states adopted comprehensive fiscal stabilisation measures to lessen the impact of the emerging global economic crisis – drop in gross domestic product (GDP), rise in unemployment. The crisis and the rescue and support measures have led to worrying budget deficits and higher levels of indebtedness in many countries.

A number of international reform projects have been initiated in the area of financial market regulation and supervision in response to the global financial crisis, with the G20 taking on political leadership in this area. The G20 has repeatedly expressed its wish for better and more comprehensive regulation and supervision of the global financial system, giving top priority to tackling systemically important institutions.[7]

G20/Financial Stability Board/Basel Committee

The G20 states mandated the Financial Stability Board (FSB) to produce recommendations on the reduction of risks in connection with systemically important international financial institutions. The FSB has established several working groups for this task. In an interim report published at the end of June 2010, it set out the main thrust of its recommendations. These focus on the areas of resolution, regulation, supervision and infrastructure. Efforts will also be made to ensure that the financial market policies of states also contribute to the solution of the TBTF problem. The specific recommendations should be available for the G20 summit in November. In this context, the FSB is closely monitoring the relevant initiatives by the Basel Committee on Banking Supervision, the International Association of Insurance Supervisors (IAIS) and IOSCO, the International Organization of Securities Commissions. The FSB exercises considerable influence on the activities of these institutions.

On 12 September 2010, the Group of Governors and Heads of Supervision, GHOS, approved the reform proposals of the Basel Committee on Banking Supervision. This new set of regulations, known as **Basel III**, brings with it an improvement in the quality of capital

[6] Cf. FINMA press release, "FINMA provides information on stress tests", 23 July 2010.

[7] Appendix A4 gives an overview of the main ongoing international initiatives.

and a general increase in capital requirements. In future, all banks will need a minimum of 4.5% common equity plus a further 2.5% buffer, which banks can draw on to absorb losses in times of crisis. In good times, banks will therefore be required to hold 7% capital in common equity. The banks have been granted a transitional period until 2018. A limitation of the degree of indebtedness on the basis of the leverage ratio is also being sought. Here again, the target is 2018. The definitive introduction of the leverage ratio will be preceded by a test phase in which the operation of this new instrument will be examined in detail. In its press release, the GHOS states that systemically important banks should meet additional capital requirements which go beyond the requirements of the Basel Committee.[8] In addition, the liquidity requirements have been laid down. Regulations on the holding of additional first-class liquidity in order to cope with short-term market disruptions will enter into force at the start of 2015. These will be supplemented by longer-term liquidity requirements from the beginning of 2018.

With the GHOS decision, the foundation now exists for a new, more stringent set of regulations, which should apply to all banks. For systemically important banks, the G20/FSB findings due in November will be a key milestone. The principles established should then be implemented at national and international levels, with individual details being further specified in the process.

European Union

The European Union has decided to establish a European Systemic Risk Board for macro-supervision and systemic risk. It will focus in particular on monitoring the risks incurred by systemically important institutions with international operations. In general, it will monitor the interaction between the macroeconomic environment, the financial system and leading institutions, and make recommendations for regulation and oversight. Within the European area, particular consideration is being given to the establishment of rescue funds which would be set up by the financial institutions as an act of solidarity. In the event of a crisis, these funds would be used not so much for rescue as for the resolution of institutions which find themselves in difficulties. In addition, an EU study has come out in favour of bank taxes based on the levels of borrowing and risk.[9] After the countries meeting at the Toronto G20 Summit at the end of June 2010 failed to reach agreement, some European countries are now insisting that the EU should go it alone.

United States

In the United States, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act on 21 July 2010. One of the goals of this act is to prevent situations arising in which the state needs to rescue systemically important financial institutions. The act envisages the establishment of a Financial Stability Oversight Council which will be able to insist on more demanding requirements for systemically important institutions in the areas of capital, liquidity and risk management. A special resolution procedure will also be developed for insolvent systemically important institutions. Alongside this, significant restrictions will be imposed on proprietary trading by banks that administer deposits insured by the Federal Deposit Insurance Corporation. Investment by these banks in hedge funds and in private equity will also be limited. The systemically important institutions will also have to regularly submit plans for their liquidation in the event of a crisis (funeral plans). Assistance measures for specific institutions by the Federal Reserve are prohibited. Discussions are also being held on the introduction of special levies or taxes for banks on the

[8] GHOS, "Group of Governors and Heads of Supervision announces higher global minimum capital standards", 12 September 2010.

[9] European Commission, "Innovative financing at a global level", April 2010.

basis of the Financial Crisis Responsibility Fee proposed in January 2010. This a vehicle through which the Obama administration plans to obtain repayment of the costs of the TARP support programme.

2 TBTF in the Swiss economy

2.1 Definition

Analysis of the TBTF problem requires a clear definition of the terms used. A company is classified as TBTF if the state cannot afford to allow it to fail.[10] From the viewpoint of the Commission of Experts, the central notion in the discussion is that of "systemic importance".

The following conditions have to be fulfilled for a company to be classified as **systemically important**:

- **The company performs services that are essential for the economy and indispensable.** The main focus here is on networks and on basic provision of essential goods. In the financial sector, the infrastructure for payment transactions (liquidity supply) and financial intermediation (provision of loans and investment possibilities) are examples of this kind of indispensable economic service.
- **Other market participants cannot replace the company's systemically important services within a timeframe that is acceptable for the economy as a whole.** In unfavourable market conditions, the provision of these services by other market participants may prove to be even more difficult. The period of time required for the provision of a replacement by the market therefore determines the timeframe for a possible intervention by the state.

Specific criteria are required for a company to be classified as TBTF in practice. These criteria make it possible to establish whether the above criteria have been fulfilled. A classification of this kind can be made after an overall analysis of all relevant criteria. It should be noted that it will not be possible to give a clear ruling for every company. Three classification criteria are used:[11]

I. Size and market concentration. This criterion is met when the size of the company or its leading position in the market makes it impossible for other companies to carry on the indispensable activities. The company's balance in relation to GDP can be used to determine size. The market share in systemically important markets is an indicator of the significance of individual companies.

II. Interconnectedness. A company may have diverse and complex business relations with clients, suppliers and investors at the national and international levels. Failure would therefore have serious consequences for a large number of other players and could generate a contamination process which would seriously damage the entire economy.

III. Lack of substitutability. The substitutability of economically important functions by the market tends to decrease with the size or the inter-connectedness of the company concerned. Market-specific factors such as crises may impede or even prevent a takeover of

[10] In this report, TBTF will be treated as synonymous with "too interconnected to fail", "too complex to fail" and comparable terms.

[11] Different companies that are either particularly large or interconnected may get into difficulties simultaneously in a crisis because of an identical risk profile (common risks). This poses a question regarding the substitution of individual companies by other market participants. The application of measures to respond to the problems of individual TBTF companies is not appropriate for the reduction of risks posed by a number of similar companies and is therefore not dealt with in this analysis.

the company or of important parts of the company. The transfer of a function to other providers within a reasonable period of time may not be possible. An analysis of the timeframe in which the company cannot fulfil its systemically important functions is a key criterion for evaluating substitutability.

If in the case of a TBTF company state intervention would exceed the capacity of the state, the company is to be classified as **too big to be rescued** (TBTBR). An attempt to rescue such a company would mean that the state itself would have to take unacceptable risks.

The specific nature of the TBTF problem in the various sectors of Swiss industry can be assessed by means of these criteria. In the context of the Swiss economy, evaluation of the financial sector is particularly important, although a distinction needs to be made between the banking and insurance sectors. However, the infrastructure sector and the retail sector, in which reputed large companies are present, also require examination.

As explained in the following section, the TBTF problem in Switzerland is currently confined to the banking sector.

2.2 Manifestations in the financial sector

2.2.1 Banks

The TBTF phenomenon exists in the banking sector and has been well documented, particularly since the emergence of the latest crisis. The banks have also recognised the need to tackle the problem.[12] The implicit state guarantee amounts to a subsidy for the banks classified as TBTF. At the same time, the implicit state guarantee is associated with high costs and risks for the economy as a whole and for taxpayers.

Various methods have been devised to measure the value of the subsidy. One such measure is the credit rating of a TBTF bank. Banks that are classified as TBTF enjoy a higher rating thanks to this guarantee. At the end of 2009, for example, the rating agency Moody's gave UBS a rating that was three levels higher than it would have been without the potential state aid. In the case of Credit Suisse, the rating was two levels higher.[13]

The higher ratings mean that TBTF banks benefit from lower interest costs. This interest saving is not passed on to the party that bears the risk, i.e. the taxpayer. Quantifying the associated interest saving is problematic. In times of considerable uncertainty, it can be very high; in contrast, when times are good, it can virtually vanish.[14]

The obligation to rescue a systemically important bank stems from the fact that failure would have serious consequences for the entire economy. Against this background, the criteria from 2.1 can now be used to establish which banks in Switzerland are TBTF and possibly even TBTBR. The criteria are size or market concentration, interconnectedness and lack of

---

[12] See for example E. Gerald Corrigan, Managing Director of Goldman, Sachs & Co., "Containing Too Big to Fail", 10 November 2009.

[13] In the case of the rating agency Fitch, the rating at the end of 2009 was about three levels higher for Credit Suisse and nine levels higher for UBS. According to Fitch, without taking the expected state guarantee into account, UBS would have had a maximum rating of BB, which would have meant UBS being classified below "investment grade".

[14] See for example Institute of International Finance (IIF), "Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework", June 2010; Dean Baker and Travis McArthur, "The Value of the 'Too Big to Fail' Big Bank Subsidy", CEPR, Issue Brief, 2009; Bank for International Settlements, Annual Report, June 2010.

substitutability. Size is the fundamental criterion for systemic importance.[15] However, it is not always possible to clearly differentiate between these three criteria.[16]

Indicators of systemic importance in the financial sector involve a combination of size, interconnectedness and non-substitutability. Crucial factors in this assessment are market share of the domestic lending and deposit business and payment transactions, the level of unsecured deposits, the relationship between the balance sheet total and GDP, and the risk profile of the financial institution:

- **Market share in systemically important business areas**, especially in the domestic deposit and lending business and in payment transactions, is a key measure of the economic importance of a bank. Services that are difficult to substitute in the short term are particularly crucial here. The higher the market share, the greater the chain reactions and the probability of a credit squeeze.
- The **level of deposits that are privileged but not secured**. This is the amount by which a bank's privileged deposits exceed the current upper system limit of CHF 6 billion. The greater the share of privileged deposits not covered by the deposit guarantee, the greater the potential for contagion in the event of a bank's failure.
- The size of a bank, measured in terms of the **relationship between the balance sheet total and GDP**. On the one hand, size includes additional factors of interconnectedness and substitutability that are not covered by the other criteria. The bigger a bank is, the greater its systemic importance.[17] On the other hand, the bigger a bank is, the greater the probability that a rescue attempt would exceed the financial capacity of the Confederation, i.e. the bank would be TBTBR.
- The **risk profile** of a financial institution. This can be judged on the basis of the business model, the balance sheet structure, the quality of assets, liquidity and leverage.

As for the **size** criterion, it must be said that, in Switzerland, the TBTF problem is particularly pronounced in the case of the two big banks. Together, they have a balance sheet total that is about five times the size of Switzerland's GDP. In addition, their joint share of the domestic lending and deposit business amounts to more than a third. In light of the size of the two big banks, Switzerland's banking sector is an exceptional case on the international scene, in terms of both size and of concentration. The basic criteria for classification as systemically important institutions have therefore been met. Given their size, it cannot be ruled out that the big Swiss banks are potentially TBTBR.

In general, there is a high degree of **interconnectedness** in the banking sector. This is reflected in the close interrelationship with the rest of the economy. Because of the key importance of banks for the supply of credit and liquidity, the failure of a big bank would endanger the refinancing possibilities of many companies and households. Moreover, the banks are strongly interconnected with each other. The two big banks, in particular, provide central services for the other banks, and thus play a key role in liquidity supply and adjustment for other banks. In Switzerland, only UBS, Credit Suisse and Zurich Cantonal Bank have direct access to CLS ("Continuous Linked Settlement"), a settlement system for large international exchange rate transactions. Other banks settle their exchange rate

---

[15] See also International Monetary Fund, FSB and Bank for International Settlements, "Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations – Report to G20 Finance Ministers and Governors", October 2009.

[16] Size goes hand in hand with national and international interconnectedness and with the limited substitutability of systemically important functions. Stronger interconnectedness may make substitutability more difficult.

[17] See for example Bank for International Settlements, "The systemic importance of financial institutions", Quarterly Review, September 2009, p. 75-87.

transactions either through this or through European banks. The failure of a big bank would have a knock-on effect, with far-reaching consequences for the entire banking system, and could also seriously affect the international financial system. Ultimately, the ability of the banking sector to operate depends heavily on its reputation and on the confidence of counterparties and clients.

Systemically important banks are also characterised by the fact that the services they provide cannot be **substituted** by the market within a reasonable period of time. This period is much shorter than in other branches, as a bank weakens much faster if there is a loss of confidence. A drastic reduction in credit supply and a concomitant effect on the economy as a whole – for example, a credit squeeze – can occur before alternative lenders can be found. The clients of this bank may no longer be able to gain access to their deposits and to make payments. The failure of a systemically important bank endangers the assets of households and companies and blocks access to them, at least temporarily. This leads to restrictions on consumer spending and capital investment.

Another factor that impedes an orderly solution in the event of a crisis is the **complexity of organisational structures** in big banks, which hampers restructuring and resolution. This complexity manifests itself (inter alia) in a large number of legal entities and branches with a complicated system of capital flows and guarantees between these entities.

In the banking sector, the difficulties are compounded by the fact that the two big banks have significant **asset overhangs abroad**. This means that domestic liabilities are greater than the assets located in Switzerland. In addition, the big banks are often systemically important abroad too. This situation makes Switzerland particularly vulnerable to pressure from abroad to rescue a bank with state funds. The high proportion of assets held abroad would lead to major legal and operational problems in the event of a bankruptcy.

Aside from the big banks, there are some other banks in Switzerland that have a significant market share in business areas that are important for the economy. However, these banks are far smaller and less complex than the big banks, and for the most part they do not have an international dimension.

To sum up, it can be said that at the moment the **two big banks** in Switzerland, in their current form, can clearly be **classified as TBTF**. This state of affairs poses great risks for the taxpayer. **Other financial institutions** fulfil individual TBTF criteria, and a future TBTF classification cannot be ruled out for them.

2.2.2 Insurers

The insurance sector is undoubtedly highly important for the Swiss economy as a whole. However, as will be shown below in the TBTF criteria, there is currently no de-facto need to rescue an insurance company based in Switzerland and supervised by FINMA. In contrast to the situation with the banks (cf. 2.2.1), the rating agencies do not factor in an implicit state guarantee – which would improve the rating – in their ratings for large insurance companies. However, these two considerations do not completely rule out the possibility that systemic risks could also manifest themselves in the insurance sector, especially as a result of non-insurance activities similar to those of banks (capital market activities). Moreover, the economic environment and the business activities of the insurance companies are subject to constant change.

In contrast to the situation with banks, the **size** and **market share** of insurance companies do not currently constitute a TBTF risk on the Swiss insurance market.

In the traditional insurance business, the time factor also has to be taken into account. This applies both to the occurrence of systemic risk and to the resilience of the insurance sector. In contrast to banks, insurers have more possibilities of coping with the effects of a crisis, especially as insurance company liabilities fall due over longer periods of time.

The following section will examine in more detail two systemic importance criteria in connection with the insurance sector – interconnectedness and lack of substitutability.

There is **interconnectedness** within the insurance branch, and with the financial sector and the real economy. Interconnectedness within the insurance sector is primarily the result of reinsurance, the means by which risks are redistributed within the insurance sector. Whereas relations on the interbank market are played out among numerous involved parties, the pattern of relations in the insurance sector is that of a largely hierarchical network. Risks are transferred from the primary insurer to the reinsurer and from them to further reinsurers or to the capital market.

Insurance companies are strongly interconnected with the rest of the financial sector through the substantial volume of their investments, which means that they are inevitably exposed to contagion risks. This may result in an additional dissemination channel of systemic risks from the banking sector or the financial markets, even though in times of crisis insurance companies may have a stabilising effect on the economy as a whole given their long-term investment horizon and not least the more conservative investment policy prescribed by the supervisory authorities.[18]

Non-insurance activities, in particular activities similar to those of banks, can increase interconnectedness with the rest of the financial sector and therefore constitute a weakness from the supervisory viewpoint. Examples of this are the providing collateral through credit default swaps[19], leveraged investment programmes and possibly other refinancing activities.

The possibilities of **substituting** insurance functions and insurance companies are more diverse than in the banking sector. Given the competitive situation on the market, the timely substitution of insurance services is generally ensured.

The capital base that insurers are legally required to have, the technical reserves that they are required to hold and tied assets (the latter in the legally prescribed insurance branches) all contribute additionally to the creation of conditions for the most efficient resolution possible in the event of insolvency. The insurance industry supervisory body has various instruments to enable it to cope with a failure. Options that can be considered in such cases include the takeover of a failed insurance company or of a problematic portfolio by a healthy insurance company (portfolio transfer) or by a dedicated rescue company. FINMA can take measures to this effect. Orderly resolution over time may be carried out in the private sector or, if necessary, by the authorities.

This also applies to life insurers. In principle, resolution should be possible provided the tied assets offset policy holder claims. For individual insurance policy holders, the effects would be comparable to losses on a diversified investment. Meanwhile, in order to minimise such losses, life insurers are required by the supervisory authorities to set aside tied assets. Separate operating accounts are also required for the occupational pension business. Voluntary or officially prescribed portfolio transfers are possible options when restructuring

[18] Cf. OECD, "The Impact of the Financial Crisis on the Insurance Sector and Policy Responses", April 2010, ch. A p. 7.

[19] When concluding a credit default swap, the protection seller undertakes to indemnify the protection buyer when a defined credit event occurs. The protection seller is paid a premium for this.

insurance companies. The fact that contributions to occupational pension schemes are compulsory also has a stabilising effect in this business. In the event of a crisis, income from premiums does not dry up immediately. In the event of a bankruptcy, FINMA can restrict the buy-back rights of insurance policy holders in order to prevent a run on life insurance companies. The failure of a prominent life insurance company that backs occupational pension schemes may nonetheless have negative effects on the system of occupational pension provision in Switzerland, especially on the full insurance model favoured by small and medium-sized enterprises (SMEs). In certain circumstances, the state may be required politically to intervene and provide support if a large number of SMEs fail to find a suitable provider for this form of occupational pension provision. However, neither a state obligation to rescue an insurance company nor an intolerable systemic risk for the financial centre or for the real economy can be identified at the moment.

The development of systemic risks in the insurance sector and any ensuing TBTF and TBTBR problems have to be continuously monitored by FINMA. The main goal of its prudential supervisory regime is to protect insurance policy holders. FINMA must ensure that insured parties enjoy the high level of protection required by law even in the event of the insolvency of insurance companies. It should be stressed, however, that it is not its primary task to protect companies or their owners from insolvency.

As the existing supervisory regime, backed by the insurance business model, has proved adequate, there seems to be no pressing need for a general overhaul or for fundamental changes. Specific improvements to the supervisory regime could be made in the context of general developments in insurance supervision. These would preserve the resilience of the insurance sector in the face of new realities and would also eliminate identified weaknesses. To this end, monitoring activities are consistently being implemented and, where necessary, strengthened.

The **entry into force of the Swiss Solvency Test (SST)** as of 1 January 2011 is an important milestone in this respect. The solvency test makes it possible to assess the overall solidity of an insurance company using market-consistent valuation methods on its total balance sheet. The SST's view of the overall company balance sheet focuses on the group or the conglomerate level and is an important supervisory instrument which makes it possible to quantify risks within the entire company. The SST also allows risks from non-insurance and capital-market-related transactions to be captured. As the SST is applied and further developed, it will be necessary to ensure that non-insurance and capital-market-related risks – as well as any other emerging risks – are properly included and quantified. Moreover, capital-market-related transactions are to be subjected to separate and business-specific regulation and supervision.

Efforts to establish internationally coordinated supervision of insurance groups and conglomerates are to be pursued.

The resilience of the insurance sector can be further increased by improving risk management in the area of liquidity and subjecting it to regular supervision. When the relevant requirements are being defined, the specific nature of the insurance sector, and in particular the different liquidity needs compared with banks, have to be taken into account. FINMA will continue to develop the necessary measures.

In addition to these measures, the **insolvency provisions** should be improved, especially with regard to the responsibilities of FINMA. FINMA's existing intervention authority should be complemented by recovery and resolution powers. These adjustments have already been adopted and presented to parliament in the Federal Council dispatch on amending the

Banking Act (deposit protection)[20]. Developments on the international level also need to be taken into account.[21]

2.2.3 Financial market infrastructure

Financial market infrastructure provides services that can alleviate the TBTF problem with respect to banks. Consequently, the introduction and increased use of central counterparties and central databases for OTC derivatives[22] are discussed in 3.7.2 under further measures to limit economic risks. However, because of its central role in the financial system, the loss of financial market infrastructure can also lead to difficulties, especially for participants.

The main Swiss financial market infrastructure – the large-value payment system SIC (run by SIX Interbank Clearing on behalf of the SNB), the securities settlement system operated by SIX SIS and the central counterparty SIX x-clear are crucially important for the stability of the financial system. FINMA and the SNB are responsible for the supervision and oversight of financial market infrastructure in Switzerland. SIX SIS and SIX x-clear have bank status and are supervised by FINMA. SIC, SIX SIS and SIX x-clear are also subject to SNB oversight, as they are systemically important payment and securities settlement systems.

A number of extreme but plausible scenarios could lead to the failure of the services provided by the system operators. Nevertheless, the **TBTF problem** is **far less acute** in the case of **financial market infrastructure** than it is, for instance, with respect to banks. The operators of financial market infrastructure are far less exposed than banks to the risk of a sudden run on liquidity. The most likely stress scenario would involve an abrupt reduction in the value of the participants' collateral, which would expose the infrastructure operators to a very high level of market risk. However, preventive measures do exist that can greatly reduce the likelihood of such a loss. Moreover, there are ways in which key financial market infrastructure can be maintained even if a system operator encounters solvency or liquidity difficulties.

Above all, it is much easier to continue to provide services through an operating company or a rescue company than in the case of banks. The rescue of a system operator would not be necessary as long as the system operators carried out the requisite preliminary work and in cooperation with the authorities produced plans for the transfer of their services to an operating or rescue company. Requirements to this effect, which are currently envisaged within the framework of the ongoing revision of the international principles for financial market infrastructure, should also be implemented in Switzerland.[23]

---

[20] Federal Gazette 2010 3993. On the Insurance Supervision Act from p. 4028.

[21] Recommended for further reading – the detailed analysis of systemic risks in the insurance sector in the FINMA Working Paper June/2010. For the international dimension, see the position statement by the IAIS on core issues of financial stability of 4 June 2010.

[22] These are derivatives that are traded over the counter, i.e. outside of an exchange, between two market participants.

[23] The current international principles for financial market infrastructure are contained in the following reports: CPSS, "Core Principles for Systemically Important Payment Systems", 2001. CPSS-IOSCO, "Recommendations for Securities Settlement Systems", 2001; and CPSS-IOSCO, "Recommendations for Central Counterparties", 2004. These principles are now being revised by a joint working group of the CPSS (Committee on Payment and Settlement Systems) and the Technical Committee of IOSCO (International Organization of Securities Commissions). FINMA and the SNB are represented at various levels in the relevant international work group.

2.3 Manifestations in other sectors of the economy

2.3.1 Infrastructure sectors[24]

Because of their economic importance, a number of infrastructure branches have also come under scrutiny in connection with the TBTF issue. Some of these branches are dominated by monopolies that would be difficult to substitute, for example electricity supply companies or the rail network. The failure of an infrastructure provider responsible for such a network could potentially generate very high economic costs. If, for example, the Swissgrid electricity transmission network was put out of action, the production of many goods would be impossible. In the extreme case, the existence of many other companies would be endangered.

Although monopolistic networks that are indisputably systemically important can seldom be replaced by competitors, the danger of short-term or long-term supply failure in the case of infrastructure companies is limited. Given the large percentage of capital assets and the generally very low variable costs, from the management viewpoint a rescue company would usually be able to operate the company with comparatively little difficulty and would be able to ensure supplies. The original company can go bankrupt without causing serious damage to the economy. Moreover, systemically important business areas in infrastructure networks are already heavily regulated. What is decisive for the TBTF issue in terms of prevention is to ensure that the legal requirements for regulation as well as implementation by the regulator are sufficiently flexible to guarantee profitable operation and the maintenance of systemically important functions.

In contrast to banks, the systemically important functions of the infrastructure sector are not exposed to the bank-specific risks of a run on liquidity or contamination by other market participants. Even if the infrastructure company concerned were to go bankrupt, its network would remain technically operative. This means that in the event of a crisis it will have far more time than the banking sector to look for alternative sources of financing. Systematically important functions in the infrastructure sector can be re-established relatively quickly by taking up bridging loans which are minimal compared to the requirements of the banking sector.

2.3.2 Retail sector

The retail sector is important for the domestic market, as it supplies the population with many essential items of daily use. Experience shows that the leading Swiss retail companies have been profitable for many years. Retailers can supply even the remotest parts of the country with goods without state support. As in many other countries, the retail sector in Switzerland is characterised by relatively strong market concentration, which is a result of economies of scale and other factors. In the past few years, market concentration has further intensified as a result of numerous mergers.[25] However, new market entrants (e.g. Lidl, Aldi) have now appeared on the scene and have been able to gain market share. Whereas the decline of the small retail outlet, despite its impact on those immediately affected, is of no great importance for the economy as a whole, the negative effects of the bankruptcy of one of the two main retailers would be more significant.

[24] A detailed analysis of the TBTF problem can be found in Appendix A5.

[25] Examples of this are the mergers of Migros/Globus/ABM/Denner and of Coop/EPA/Waro/Carrefour.

As the process of resolution of a large retailer would take place over a longer period of time and would thus enable substitution by the market, security of supply would not be endangered. The large **retailers** therefore **cannot be classified as TBTF**.

2.3.3 Other sectors

There are also companies operating in other sectors of industry which have the size and status of global companies. This is true of the pharmaceutical industry, commodities trading and the food industry. These sectors operate internationally and derive only a small part of their income from Switzerland. Nevertheless, the collapse of such a company would have a negative impact on Switzerland. But here too, as in the case of retailers, various services could be replaced within a relatively short time, which means that these large companies cannot be regarded as TBTF.

2.3.4 Conclusion

On the whole, the TBTF issue in Switzerland is confined to the banking sector. There are also large companies in other branches whose insolvency would undoubtedly have a serious negative impact. However, their systemically important functions could be replaced rapidly enough by the market or they could be guaranteed at a reasonable cost by a rescue company. As no action should be taken to prevent structural change which is essential for prosperity, from a macro-economic viewpoint, state intervention in this sector would not be appropriate and certainly would not be imperative.

3 Measures

3.1 Overview

Systemically important companies provide services that are critical to the economy. In the event of a company's insolvency, substitute services cannot be provided by other companies at short notice. Insolvencies therefore create predicaments for governments, requiring them to rescue entire companies to maintain systemically important functions and prevent serious economic repercussions. This means that such companies benefit from an implicit state guarantee, which distorts competition and potentially creates wrong incentives. Measures to limit economic risks must be aimed at eradicating wrong incentives and distortion of competition, and ensuring that governments are not compelled to rescue entire companies to maintain specific functions.

Two sets of measures have been identified:

I. Preventive measures, i.e. measures aimed at averting future crises, increasing security and reducing the risk of the failure of a systemically important company. Where insolvency is inevitable, these measures would at least minimise the impact of the insolvency.

II. Curative measures, i.e. measures obviating the need for governments to produce rescue packages to secure the continuity of systemically important companies in the event of insolvency.

In terms of timing, measures can be implemented in three phases: they can be initiated as preventive measures as part of routine operations, serve to stabilise banks in the event of a crisis (crisis management, or recovery), or be focused specifically on insolvency events, with a view to facilitating resolution or winding-down. The changes and transitions between

phases should therefore be implemented gradually. Measures need not be strictly demarcated into separate phases. As a general rule, more incisive government measures will be warranted where a crisis intensifies progressively due to a specific risk situation. Regulators are exerting more control over banks, while the range of mechanisms available to them has been extended.

Economic (cf. 3.2 below) **and legal criteria** (cf. interim report section 3.5) have been defined for the purpose of evaluating measures. A variety of measures were considered on the basis of these criteria, having regard to the potential strategic thrust and timing of the measure. Given that the TBTF issue in Switzerland is currently confined to the banking sector, the distinctive features of bank operations were factored into the assessment. Based on this assessment, **four core measures** have been identified:

- **Capital**
- **Liquidity**
- **Risk diversification**
- **Organisation**

These core measures and their recommended configurations and applications are set out in detail below (cf. 3.3 to 3.6).

In evaluating the measures, it became apparent that there is no single measure that will reduce the risks associated with systemically important banks to economically acceptable levels. It also became evident that there are close correlations between measures, either due to the presence of interrelated requirements, or complementarities between the measures. As well as identifying the key areas, the Commission of Experts therefore synchronised the core measures and formulated a specific **package of measures (policy mix)** (cf. section 4).

There is an especially close correlation between capital and organisational measures particularly to improve the (international) resolvability of entire banks. While an institution's capital and organisational structure primarily reduce the risk of insolvency, its resolvability will lessen the impact of such insolvency. The added security provided through capital increases can thus offset any inadequacies in (international) insolvency proceedings. Reducing the economic risks associated with systemically important banks by improving international resolvability undercuts the argument for special capital requirements. Systemically important banks should be allowed a reduction on the additional capital they are specifically required to hold. Improving resolvability is feasible both in legal terms and in terms of cooperation between the authorities in relevant countries, but also in terms of banks' organisational structure (cf. 3.6).

Increased capital requirements for systemically important banks are a key element in the package of measures proposed by the Commission of Experts. To simplify and/or facilitate the implementation of these more stringent capital requirements for the banks concerned, the legal framework will be created for two new instruments – reserve capital and convertible capital:

- **Reserve capital** is intended to facilitate the raising of capital and the issue of new shares in a crisis. Reserve capital is a new type of authorised capital, which is not caught by the limitations as to time and amount specified in Article 651 para. 1 and para. 2 of the Swiss Code of Obligations (CO) (cf. 3.3 and commentary in Appendix A3.2.2).

- In contrast, **convertible capital** is a new kind of conditional capital. The Board of Directors may issue bonds based on convertible capital, which are converted into share capital upon the occurrence of a contractually predefined event (for example falling below a specified common equity ratio), thus enabling debt capital to be converted into equity (cf. 3.3 and commentary in Appendix A3.2.2). The bonds issued are therefore contingent convertible bonds (hereafter "CoCos").

The implementation of individual measures, or the package of measures, and the availability of new capital instruments will require **amendment to the Banking Act**. Appropriate draft amendments to part of the Act have been prepared to create the necessary statutory basis (cf. Appendix A2 and commentary in Appendix A3).

In addition to the core measures, **other measures** have been identified that could help in tackling the TBTF issue, but which for various reasons have not been the focus of deliberations:

- **Implementing changes to national and international bankruptcy laws** to improve the cross-border resolution of banks could substantially facilitate the maintenance of systemically important functions in the event of an insolvency and enable more effective restructuring and orderly resolution of banks (cf. 3.7.1).

- The initiatives already underway to **improve market infrastructure and banks' internal processes** are deemed to be adequate. No further measures are required at the present time (cf. 3.7.2).

- In relation to **remuneration systems**, the measures already taken, as set out in the applicable FINMA circular, are deemed to be adequate for the TBTF problem (cf. 3.7.3). The circular implements the recommendations of the FSB regarding remuneration systems.[26] Moreover, the problem of high remuneration levels that are not always adjusted for risk is not specific to systemically important banks.

Various **measures** discussed at international level and considered by the Commission of Experts were **not pursued further**, or were perceived as unnecessary. These measures are either (i) ineffectual in reducing risk, (ii) too wide in scope and disproportionate, (iii) produce wrong incentives, or (iv) can be substituted by other measures which are less burdensome to affected banks while achieving the same objectives. Tax and insurance solutions, in particular, were not pursued further (cf. 3.8). Competition law measures were also examined and found to be inappropriate, as these do not address the TBTF problem in a targeted manner. Direct regulation or imposing restrictions on proprietary trading are inappropriate in view of the new international capital requirements. Moreover, direct size restrictions and direct structural measures are disproportionate and unnecessary in view of the measures proposed regarding capital and organisation.

3.2 Criteria for selecting appropriate measures

The following criteria are used to evaluate the measures. Due consideration must be given to such criteria both in order to evaluate individual measures and make an overall assessment of a package of measures (policy mix).

[26] Cf. Financial Stability Forum (FSF); now FSB, "FSF Principles for Sound Compensation Practices", 2 April 2009.

I. Risk limitation

Does the measure help mitigate risk within the financial system effectively, thus reducing the probability of insolvency, systemic risks and consequent losses to acceptable levels?

Risk-taking, risk monitoring and risk transformation are among the key functions performed by banks. Any misalignment between actual and authorised risk-taking is essentially attributable to the presence of external costs and the wrong incentives created by these. Measures should be focused on avoiding these.

II. Simplified resolution and restructuring of systemically important banks

Does the measure facilitate the management of insolvencies or pending insolvencies without any cost to the taxpayer and without disrupting the financial system? And does the measure thus allow the principle of liability to be applied to all companies within the financial sector and make such companies subject to general bankruptcy rules?

The objective is to ensure an orderly resolution or restructuring of affected banks while keeping detrimental consequences to a minimum and preserving their systemically important functions. The process must be credible, practicable and effective at mitigating loss. It should have a deterrent effect, thus promoting market discipline. This will require adequate powers of intervention on the part of the supervisory authorities and compatible organisational structures and resolution plans within banks.

III. Functioning and efficiency of the financial system

Is the measure capable of producing the required results without preventing the banking and financial system from performing the essential functions that ensure economic prosperity and growth? Does it also give the financial sector the capacity to innovate and develop? Is the measure conducive to the financial industry maintaining efficient, competitive structures?

Regulatory reforms must focus on counteracting any pre-existing adverse incentives and externalities. Prices and lending practices should accurately reflect any underlying scarcity and risks. Any further interventions giving rise to "social regulatory costs" should be avoided where possible.

IV. Competitive neutrality

Is the measure conducive to minimising distortions of competition within the financial sector both in the domestic and global economies?

Measures should be as neutral as possible from a competition point of view and be confined to correcting existing distortions. Accordingly, it is desirable that measures are aligned with international regulatory developments. However, as well addressing the impact of the various national standards on competition, it is also important to consider any potential long-term distortions caused by an overly rigid international regulatory cartel.

V. Simplicity

Is the measure conducive to ensuring that the regulatory system is as simple and efficient as possible? Does the regulatory system avoid unnecessary duplication, i.e. the coexistence of several instruments with identical or similar aims?

The more complex the regulatory system, the greater the scope and incentives for circumventing and evading the intended effects, requiring a greater commitment of (economically unproductive) resources to achieve the intended purpose.

VI. Non-fiscal objectives

Interventions should not be aimed at generating additional government revenue, but regulating the incentives of financial market participants.

Where fiscal considerations are overriding, there is a significant risk that measures will be miscalculated (relative to their original objectives).

3.3 Core measure *capital*

The capital core measure has several complementary aims. Firstly, higher buffers reduce the likelihood of systemically important banks failing, and thus the expected economic costs of failure decline. Secondly, capital reserves contribute to crisis management, making it easier to maintain systemically important functions in the event of a crisis. Thirdly, appropriately designed capital requirements create an incentive for banks to limit their systemic importance.

These objectives can be achieved particularly by implementing a progressive scale of capital requirements. A progressive scale would lower the probability of bank failure where there is a higher potential for loss. Normally, where the probability of failure remains constant, the expected economic costs rise as the bank's systemic importance increases. A progressive structure also creates incentives for banks to limit their systemic importance. Lower levels of systemic importance should be more attractive to banks than higher levels.

The concept for determining the capital requirements for systemically important banks is first described below, followed by the calibration of these requirements. Finally, principles are laid down for determining a leverage ratio.

The table below provides an overview of the various capital instruments in an international context. In addition to common equity, the following categories of capital instrument can be identified: (i) capital instruments with a loss-absorbing capacity that is essentially contingent on contractual terms (e.g. contingent convertible bonds – CoCos); (ii) capital instruments with a loss-absorbing capacity that is contingent on contractual terms but are of questionable efficacy unless the legal framework for bank restructuring is reformed at international level (e.g. "bail-inable" bonds), and (iii) capital instruments whose loss-absorbing capacity depends on global reform of bank restructuring legislation (e.g. senior debt in respect of debt-equity swaps).

Instrument	Description	Loss absorbing capacity on a going concern basis	Relevance in a crisis situation
Common equity Tier 1 (CET1), (hereafter "common equity")	Common equity consists of paid-in capital, disclosed reserves and retained earnings, and is calculated after deduction of regulatory adjustments (including goodwill and new deferred tax assets). The assets deducted are not deemed to be of reliable value in a crisis situation.	Deemed to exist.[27]	In the recovery phase, losses are absorbed with the aim of preventing a bank from moving into the restructuring phase.
Reserve capital	Pre-authorised share capital issuable at any time by resolution of the Board of Directors which is not subject to the restrictions on authorised capital currently in effect in the Swiss Code of Obligations.	As with common equity, this is loss-absorbing only after placement. However, new capital issues are likely to be difficult in crisis situations. Given this considerable uncertainty, the loss-absorbing capacity of reserve capital is unclear.	Bank management should be able to raise additional capital to stabilise the bank without the need for a General Meeting resolution.
Contingent convertible bonds with contractual triggers (CoCos)	Debt capital which may be converted into corporate capital or written off once a contractually defined threshold (trigger) is reached or state assistance[28] is provided. This report only considers CoCos whose conversion is triggered when a regulatory capital ratio is reached or falls below a certain level.	Fully loss-absorbing once converted into common equity or written off. Timing of conversion contingent upon the trigger level (see below).	Contingent upon the trigger level (see below).
• High trigger	Conversion is triggered when there is a suitably large distance from the regulatory minimum.	High if bond is converted or written off rapidly (confidence is key).	Rapid stabilisation before actual restructuring and liquidation phase.
• Low trigger	Trigger set just above the regulatory minimum.	Significantly weaker and later effect than with higher trigger CoCos, as the reported capital ratio can exceed the regulatory minimum even in acute crisis situations.	Stabilisation, sufficient room for manoeuvre in a crisis situation and facilitates restructuring and orderly liquidation.

[27] However, the Basel Committee definition permits recognition of non-loss absorbing capital components of up to 15% of common equity.

[28] State assistance means that the state provides capital or guarantees for substantial levels of debt.

Contingent convertible bonds with official trigger (bonds with bail-in clause or bail-inable bonds)	Bonds with a bail-in clause stipulating that bondholders take a share of the loss in the event of resolution. Conversion/write-off is triggered by an official decision by the authorities or the provision of state assistance, and does not result in default.	Can be seen as a contractual version of officially sanctioned debt-equity swaps. No guarantee of international enforceability in the current legal climate.	Ensure sufficient room for manoeuvre in a crisis event. Potentially facilitate restructuring and partial continuation.
Senior bonds; debt-equity swaps possible **domestically** based on official order from the authorities	Compulsory conversion of debt into equity or compulsory write-off based on official decision by the authorities. Unilateral measure (not under contract) and therefore a type of expropriation.	None.	Not currently enforceable internationally.

Table 1: Overview of the different capital instruments in an international context

3.3.1 Concept

The concept used for the proposed capital requirements has three elements (cf. Figure 1):

I. The **minimum requirement** is essential to maintaining normal operations. This capital base corresponds to the regulatory minimum requirement ("Pillar 1 requirement") in accordance with Basel III.

II. The **buffer** enables banks to absorb losses without falling below the minimum requirement and without the need to suspend normal operations. This buffer takes account of differences in bank risk profiles and potential for loss which can be assessed on the basis of the historical experiences of international big banks and model calculations.

III. The **progressive component** ensures that as banks become more systemically important, they have higher levels of solvency. It is also intended to provide systemically important banks with sufficient leeway to handle any crisis, especially for the purpose of transferring systemically important functions (cf. 3.6). In addition, the progressive component creates incentives for banks to restrict their systemic importance and thus limit the risks they pose to the financial system. To achieve these objectives, the component rises progressively with the level of systemic importance. This principle is implemented by tying additional capital requirements to the following indicators of systemic importance:[29]

- **Market share** for each bank is defined as the higher of (i) their market share of domestic lending and (ii) their market share of domestic deposit-taking. This definition has the advantage of reducing the multi-dimensional aspects of market share to a single value. This reduction is consistent with the concept of systemic importance: banks can be systemically important if significant systemic risk is

[29] The requirements are defined as a percentage of risk-weighted assets with the aim of reflecting the risk posed by specific banks. By nature of its construction, the risk profile, insofar as it is objectively quantifiable, is thus covered by all components.

identified based on an assessment of individual criteria. The definition is also flexible and can easily be extended (e.g. to include new systemically important markets), or fine-tuned (e.g. by breaking down the lending market into different segments).

- **Size** is quantified on the basis of total assets, which allows for simple and direct application. To enable banks to grow in line with the Swiss economy without any percentage increase in capital requirements, the progressive increases are indexed to GDP, i.e. the scale of requirements shifts in line with nominal GDP growth. The requirements thus rise at a constant rate relative to economic growth.

Separate additional requirements have been determined for both indicators. The aggregate additional requirements determine the total progressive component.

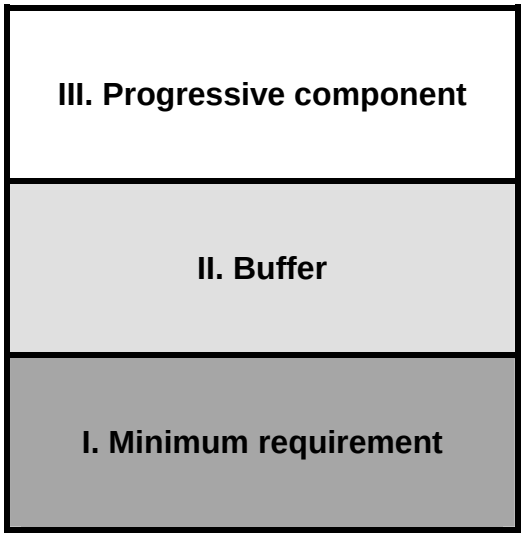


Figure 1: Components of capital requirements for systemically important banks

Part of the buffer (component II) can be held in the form of contingent convertible bonds (CoCos)[30] that have a relatively high trigger. The progressive component (component III) consists entirely of CoCos with a low trigger.[31] The trigger levels and the split between common equity and CoCos within the buffer are described in 3.3.2 ("Calibration").

Banks are required to meet all international minimum standards set by the Basel Committee in relation to common equity, Tier 1 and total capital. CoCos are eligible for inclusion in these Basel minimum requirements, subject to the eligibility criteria. In any event, all CoCos must satisfy the criteria for Tier 2 capital.

The countercyclical buffer proposed by the Basel Committee may be introduced for the entire banking system. Since this does not contribute to alleviating the TBTF problem, it is not included in these requirements.

[30] For a brief explanation of the various capital instruments, see Table 1.

[31] This concept is a model and should be used as a template by the Federal Council in drafting the ordinance. CoCos comprise capital instruments which always become loss-absorbing once a predefined event is triggered; they could be bonds with a write-off mechanism, for example, as well as contingent convertible bonds.

Interaction between the progressive component and the organisational core measure

The progressive component is closely correlated with the organisational core measure: once an event has occurred triggering conversion of the CoCos under the progressive component into common equity, the emergency plan must be implemented (cf. 3.6). In a crisis, the high-quality capital created by the conversion facilitates the transfer of systemically important functions to an independent legal entity.

Systemically important banks which exceed the organisational minimum requirements for maintaining systemically important functions in Switzerland and improve their resolvability or divisibility will be rewarded with a reduction in required capital based on the progressive component (cf. 3.6.3). No reduction will be granted to banks which can demonstrate that they only meet the minimum requirements for maintaining systemically important functions in Switzerland.

Aspects of implementing the capital concept

Applying the capital concept described, requirements are set out for both the risk-weighted capital ratios and the leverage ratio, for all three components. The risk-weighted capital ratio is defined as the ratio of capital to risk-weighted assets (RWA). For this purpose, bank assets are weighted in accordance with international standards (Basel III). For very high-risk assets, e.g. certain proprietary trading positions, the capital requirements are greater than for low-risk assets, e.g. government bonds. The regulatory framework thus creates incentives to limit risk, which is clearly more effective in economic terms than imposing blanket bans on certain business activities.

Systemically important banks must satisfy both the risk-weighted capital ratio and leverage ratio requirements. The leverage ratio operates as a safety net to offset the effects of potential shortfalls in the risk-weighted requirements. The leverage ratio is normally calibrated so that the relevant requirements are slightly below the risk-weighted requirements. As a result, the leverage ratio will generally be non-binding. The principles for determining the leverage ratio are set out in section 3.3.3.

The capital requirement under component II is a target value that banks are required to maintain during good periods. In difficult periods, when banks suffer losses, the capital buffer can be used to absorb losses. Banks can therefore fall below the target level for limited periods of time. This flexibility dampens the pro-cyclical effect of capital requirements, i.e. the risk of amplifying economic upturns or downturns. This is intended to prevent the curtailment of lending by banks in order to maintain capital requirements even after a major loss has been sustained.

Transitional periods

For the implementation of the Swiss requirements, the same timeframe will apply as in the case of Basel III (staggered introduction concluding at the end of 2018). The accumulation of capital in the various categories will be overseen by FINMA and the SNB as part of capital planning. An annual report will be produced to monitor the extent of CoCo capital-raising and the development of the CoCo market. If market or legal issues delay capital accumulation, FINMA may extend the time allowed for raising CoCo capital.

If CoCo capital cannot be accumulated to the level envisaged, the specific requirements for systemically important banks will have to be adjusted to achieve the same mitigating effect in respect of the TBTF issue. Banks may be required to offset CoCo capital either by accumulating other capital with an equally effective or better loss-absorbing capacity, or by taking more incisive organisational measures.

3.3.2 Calibration

The Commission of Experts' proposals for calibrating the three components are presented below. The applicable requirements based on these approaches are indicated, expressed as a percentage of risk-weighted assets (RWA).

This calibration is based on the assumption that the Basel III regime will considerably increase the big banks' RWA. It is assumed that it will produce RWA of approximately CHF 400 billion per bank.[32] No further adjustment should be made to this RWA value as a basis for the calibration unless major inaccuracies are detected in the estimated RWA increase under Basel III.

Before the requirements are finalised, FINMA will assess whether calculation adjustments or model realignments would produce fundamental discrepancies in the calculations of RWA. If fundamental discrepancies are identified, adjustments will be made to the calibration of requirements.

Minimum requirement

The Commission proposes a minimum requirement in line with the new international standards (Basel III). This requirement consists of 8% total capital, of which at least 4.5% must be held in the form of common equity, i.e. top-quality capital, and 6% in the form of Tier 1 capital.[33] In accordance with the eligibility criteria, CoCos may be included in these minimum requirements.

Buffer

The losses experienced by international big banks during the recent crisis were taken into account when calibrating the buffer.[34]

Between the third quarter of 2007 and the third quarter of 2009, UBS sustained total losses of approximately CHF 46 billion, representing 12.2% of RWA based on holdings in the second quarter of 2007. Measured in terms of total assets, this represents a loss of 1.8%. Credit Suisse sustained losses totalling around CHF 12.7 billion between the fourth quarter of 2007 and the fourth quarter of 2008, representing 4.2% of RWA or 0.9% of total assets in the third quarter of 2007.

International big banks outside Switzerland also incurred high losses in the recent crisis. The UK bank HBOS, for example, sustained total losses representing 7.3% of RWA or 3.6% of total assets. The US Citigroup incurred losses of 5.8% of RWA and 3.1% of total assets.

The rates of loss mentioned do not take account of the countermeasures taken by banks, e.g. in the form of capital increases, or government relief measures, which limited the losses sustained by banks.

---

[32] RWA based on Basel III including credit valuation adjustment (CVA) and before banks' adjustment measures.

[33] See press release "Group of Governors and Heads of Supervision announces higher global minimum capital standards", 12 September 2010, www.bis.org. The definition of common equity (common equity component of Tier 1) used here is in line with this decision. One specific implication is that certain deferred tax assets, mortgage servicing rights and investments in non-consolidated financial institutions not exceeding the aggregate 15% limit are eligible for inclusion in common equity.

[34] The analysis is based on data for quarterly losses and gains taken from the annual reports of banks for the period commencing with the 2nd quarter of 2007 and ending with the 4th quarter of 2009. The analysis takes account of gains (net profit/loss attributable to shareholders) before taxes. No account has been taken of deferred tax claims arising in the event of losses. The total losses/gains are shown in relation to RWA (according to the international standard of the Basel Committee on Banking Supervision) and total assets.

The wave of losses sweeping across the globe which accelerated in autumn 2008 was checked by massive government support measures. Such measures were needed because many banks had largely depleted their buffers. The rates of loss would probably have been far higher without state intervention. If the likelihood of state intervention is to be reduced in future, the levels of buffers held by banks must be sufficiently high.

Stress tests and analyses of potential loss – both based on reliable data – produce values that are comparable to the historical losses experienced. It is also important to note that these do not involve worst-case scenarios. In the past, such model calculations underestimated the actual risks and future losses. Since the crisis, regulators have thus required more rigorous stress tests, for example, to be conducted.

Based on historical experience, a buffer of 8.5% of RWA is proposed. In terms of quality, the greater part of the buffer should be narrowly defined capital; at least 5.5% must be held in the form of common equity, allowing for unlimited absorption of losses within this buffer range.

A maximum of 3% may be held in the form of convertible capital (CoCos), provided such convertible capital meets minimum criteria. In particular, convertible capital forming part of the buffer must be convertible relatively quickly – i.e. at a high trigger level.[35]

In difficult periods, i.e. when a bank suffers loss, the buffer can be used to absorb losses. Banks may therefore fall below the target buffer levels for limited periods of time. Banks must rapidly replenish their buffer during good periods, i.e. on returning to profitability.

Progressive component

A progressive component equal to 6% of RWA is proposed, provided that the big bank status quo is preserved.[36] The progressive component consists entirely of CoCos. Unlike convertible capital under the buffer, conversion can be set for later, i.e. at a lower trigger level.[37]

Figure 2 (next page) shows the proposed structure of the progressive additional capital scale, based on market share and total assets.

The proposed calibration is summarised in the table below:

[35] A trigger of 7% common equity is proposed.

[36] Not allowing for replacement value netting, both banks have total assets of approximately CHF 1,500 billion and a market share of about 20%.

[37] A trigger of 5% common equity is proposed.

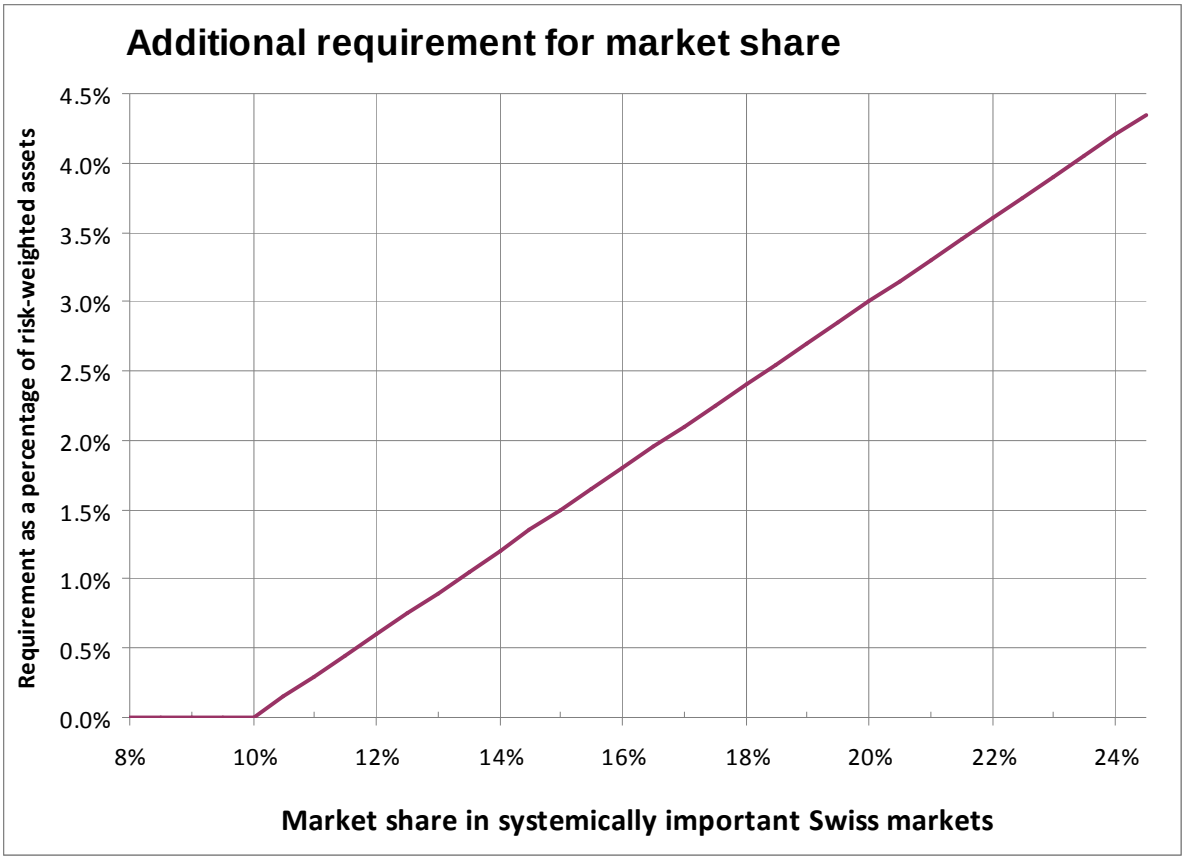
Component	Proposed calibration
I. Minimum requirement	4.5% common equity[38]
II. Buffer	8.5%, comprising - at least 5.5% common equity, - up to 3% CoCos (trigger at 7% common equity)
III. Progressive component	6% CoCos subject to big bank status quo[39] (trigger at 5% common equity)
Total	19% of total capital, comprising - at least 10% common equity - up to 9% CoCos

Table 2: Calibration summarised

The requirements are expressed in Swiss francs. A comparison with the previous requirements and with Basel III is provided in section 4.3.

[38] In addition, the Basel minimum requirements concerning total capital (8%) and Tier 1 (6%) must be met. So that they are met, the CoCos from components II and III are eligible for inclusion, provided they meet the applicable criteria set by the Basel Committee.

[39] At the present time (i.e. the status quo) the big banks have total assets (not allowing for replacement value netting) of around CHF 1,500 billion and a market share of around 20%. If total assets and market share decreases (increases), the level of the progressive component will decrease (increase).



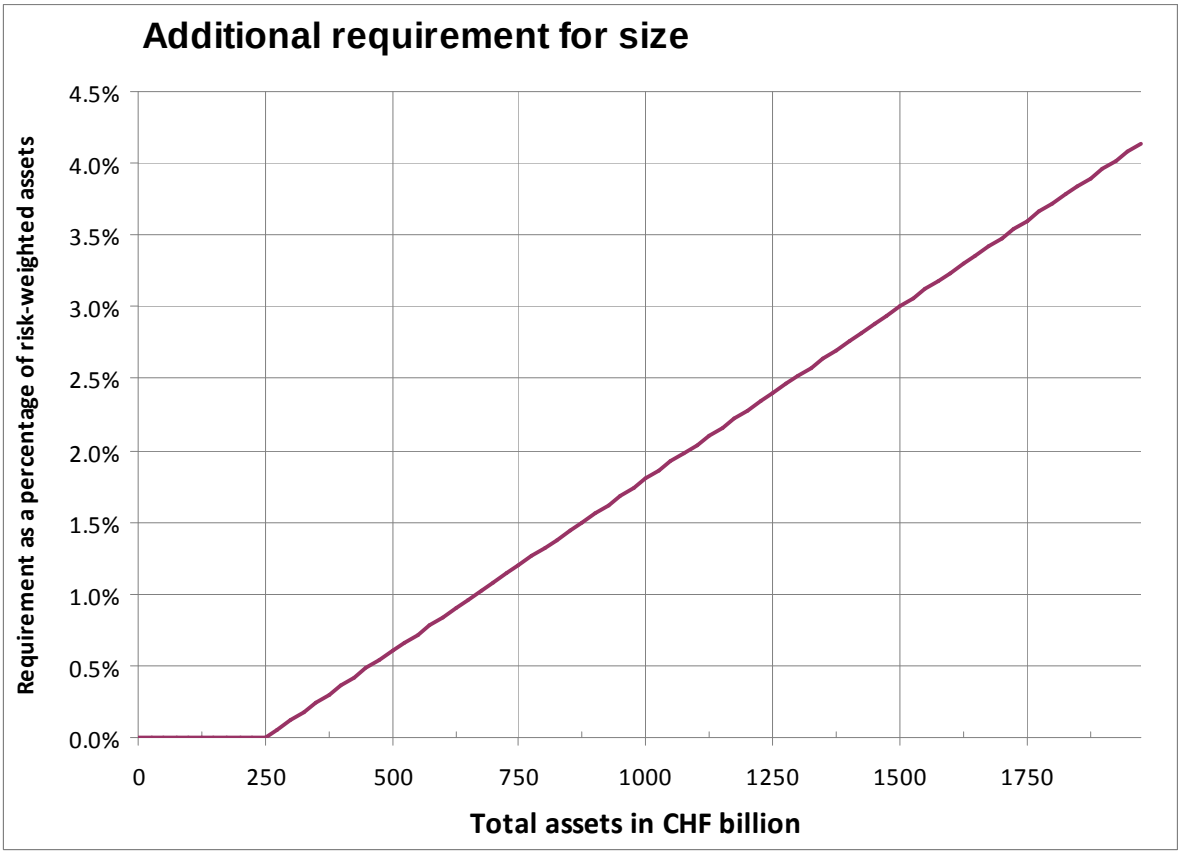


Figure 2: Proposed structure of the progressive additional requirements

3.3.3 Principles for calibrating the leverage ratio

The leverage ratio defines the minimum ratio of capital to total assets, placing a cap on the overall build-up of leverage by banks. Alongside the risk-weighted capital requirements, the leverage ratio operates primarily as a safety net to offset the effects of potential shortfalls in the risk-weighted requirements. For example, incorrectly evaluating certain assets as being very low risk will allows banks to build major risk exposures and increase their balance sheets without the need for significantly more capital based on the risk-weighted requirements. The leverage ratio prevents this type of scenario, ensuring minimum capital underpinning even for apparently safe exposures.

Even under the new Basel III standards, the risk-weighted requirements will not fully reflect a bank's risk profile. The potential for misjudgement remains. The Basel Committee on Banking Supervision has therefore decided to introduce a leverage ratio as a supplementary Basel III measure. The specific design has not yet been determined, so it is too early to define a leverage ratio for Switzerland. However, the following principles for implementation appear relevant:

- The leverage ratio should be set at such a level that the resulting requirement would normally fall just below the risk-weighted requirements, provided the big bank status quo is preserved. As a result, the leverage ratio will generally be non-restrictive.

- The starting points for progressive increases in the leverage ratio should be determined in line with the risk-weighted requirements. As shown in Figure 2, the progressive increases start with total assets of CHF 250 billion or more and a market share of 10% or higher.

- If RWA and total assets change proportionately from the status quo, the leverage ratio should always be maintained at approximately the same distance below the risk-weighted requirements.

- In line with the risk-weighted requirements, the sliding scale of progressive increases required based on the value of total assets should be indexed to Swiss GDP, allowing banks to grow at the same rate as GDP without the leverage ratio increasing.

- The stipulated capital quality should be the same as that applying to the risk-weighted requirements: the minimum requirement should be met in full and the buffer with 65% common equity. Up to 35% of the buffer and the entire progressive component can be met with convertible capital.

Provided the big bank status quo is preserved, the proposed calibration involves a leverage ratio of over 5% on the basis of the total capital, a level that was exceeded by the big Swiss banks up to the mid-1990s.

3.4 Core measure *liquidity*

The recent financial crisis highlights the need to reform the liquidity requirements for big, complex, global banks.

The liquidity proposals put forward are largely consistent with the liquidity reforms initiated since the interim report was published. These include, for example, the new liquidity requirements defined by FINMA and the SNB in close cooperation with the big banks, which took effect on 30 June 2010. These reforms are being phased in gradually so as not to jeopardise the economic recovery. The liquidity regime for big banks which took effect in June 2010 was originally set out in the form of an agreement with reference to the ongoing

TBTF work. Within the scope of the TBTF measures, it is now a case of establishing a legal basis for the guiding principles defined.

The previous Swiss liquidity requirements did not provide a high enough level of crisis resistance for large, complex, global banking groups. The requirements were formulated on the basis of liquidity crisis events that were insufficiently severe. The new liquidity requirements remedy these shortcomings.

They are based on the following concept: the authorities define a general stress scenario and the relevant parameters. The big banks determine the projected inflows and outflows under this scenario.

The stress scenario assumes a general financial market crisis combined with a major, specific loss of confidence by creditors in the bank, with anxious depositors withdrawing their funds. The bank can no longer refinance on the interbank and financial markets. Under the new liquidity requirements, banks must now have sufficient liquidity to cover the estimated outflows in such a scenario over a period of at least one month. This provides the minimum timeframe needed for the affected banks and the authorities to initiate the requisite measures and stabilise the crisis.

The new liquidity requirements have countercyclical components, allowing liquidity buffers to be built up and held during periods of strong economic growth, which can then be used if a stress situation occurs.

At international level, the Basel Committee on Banking Supervision defines quantitative minimum liquidity standards. These international standards are a minimum set of standards and may not be regarded as a substitute for requirements that are configured to the distinctive features of systemically important banks in Switzerland. Although the standards accord with the Swiss approach in terms of method, a less conservative scenario is envisaged under the international standards, resulting in a more narrowly defined liquidity buffer. In addition, minimum liquidity requirements are also being considered for a one-year horizon in the form of the Net Stable Funding Ratio. FINMA and the SNB will continue to monitor the work of the Basel Committee closely in order to establish whether the adoption of the international standards will necessitate any amendments to the Swiss liquidity standards. The introduction of a Net Stable Funding Ratio in particular could be a useful structural liquidity measure to complement the Swiss approach.

3.5 Core measure *risk diversification*

The risk diversification requirements define the maximum risk that an institution may incur in relation to individual counterparties. They are intended primarily to prevent institutions from running into financial difficulties and generating further losses in the event of default on a loan of significant value relative to their capital. The financial crisis brought to light the fragility of the financial system. In many countries, state intervention was necessary to prevent a chain-reaction collapse of institutions causing instability in other institutions. The close linkages between banks as a result of interbank claims were a key contributing factor.

As a result, the risk diversification requirements need to be amended with a view to reducing institutional interconnectedness in the financial sector. In addressing this issue, the primary focus will be on reducing bank dependency on TBTF banks by limiting the volume of authorised claims.

The Basel Committee has not previously issued any detailed guidelines on risk diversification requirements. Since the 1990s, Swiss risk diversification requirements have thus essentially

been based on applicable EU regulations, which have recently been amended, for example to tighten the requirements for interbank claims in response to the financial crisis.

3.5.1 Reducing the risk concentration of other banks relative to TBTF banks

As a result of the amendment to the Ordinance of 29 September 2006 on Capital Adequacy and Risk Diversification for Banks and Securities Traders (CAO) described below, a result of implementation of EU rules, banks will no longer benefit from preferential risk weights between themselves and in relation to TBTF banks, raising the incentive to reduce risk concentrations in relation to TBTF banks.

The amendments to the CAO will also result in the adoption in Switzerland of the EU requirements for interbank claims by 1 January 2011. These provide for a reduction in the maximum volume or limit of any interbank claim that an institution may have against another institution by increasing the risk weight for calculating risk positions relating to interbank claims from 20% to 100%. Caps on interbank claims will also be introduced, which will increase in the event of any increase in eligible capital. However, these rules will apply only to institutions that use an international approach to capital requirements and by analogy to risk diversification, affecting around 40 of some 300 institutions in Switzerland. Amending the CAO is only a first step in relation to the risk diversification requirements, given that the majority of institutions in Switzerland are not affected. The requirements for banks using the "Swiss approach to risk diversification" therefore need to be amended in the next few years with a view to reducing the interconnectedness of all banks within Switzerland and thus their susceptibility to domino effects. The amendments to the CAO have been prepared within a broad-based working group and have been presented to interested parties for consultation.

3.5.2 Reducing the concentration of TBTF banks relative to a counter-party

Pursuant to this basic principle, banks are required to limit their overall counterparty risk in relation to a single counterparty. Diversifying counterparty risk improves resilience and is also of increasing importance to TBTF banks. The current 25% limit stipulated in Article 86 of the CAO is defined as a relative value in relation to eligible capital. The limit now applying should be reduced by way of further amendment to the CAO[40].

3.5.3 Reducing the total risk concentrations

As a further element, Article 87 of the current version of the CAO restricts the total risk concentrations aggregated over all individual risk concentrations to 800% of eligible capital. A risk concentration is deemed to have arisen where the total exposure to a single counterparty or group of related counterparties is equal to or higher than 10% of the bank's eligible capital. EU-level regulation has eliminated this requirement entirely without any replacement. In Switzerland, this upper limit is calibrated to such a high level that the requirement was never binding. It is necessary to assess in relation to the TBTF issue whether the total risk concentration should be adjusted to a substantially restrictive level, necessitating amendment of the CAO as well.

[40] A general requirement limiting the maximum counterparty concentration of banks (i.e. not in relation to specific banks) is not included in the new EU rules and is therefore outside the scope of the CAO amendments currently being prepared.

3.5.4 Measures to reduce operational dependency on TBTF banks

A further issue needs to be addressed by future regulation: many small and medium-sized banks use specific services that are often provided only by big banks. As described above, most banks in Switzerland have access to certain settlement systems through the big banks or Zurich Cantonal Bank. These banks generally utilise the services of a single provider. To enable them to respond promptly to any service failure on the part of their provider, banks should have plans in place allowing them to switch providers quickly in an emergency.

3.6 Core measure *organisation*

The measures described above with respect to capital, liquidity and risk diversification reduce the threat of insolvency for a systemically important bank. They have above all a preventive effect. However, they cannot fully eliminate the risk of an insolvency occurring, or at least not at a reasonable cost for the affected banks and the economy as a whole. There remains a residual risk.

Therefore, precautions need to be taken for such an insolvency scenario notwithstanding the strict capital adequacy provisions. The repercussions of such an insolvency should be kept to a minimum, and an orderly exit from the market must be made possible. Precautions of this type can be conceived at two levels:

The repercussions of a bank's insolvency can be reduced through improvements to insolvency law and insolvency procedures. The main starting points here include the international standardisation of insolvency law, unambiguous rules of jurisdiction, the standardisation of instruments deployed by insolvency authorities, the facilitated recognition of foreign legislative measures in the sphere of insolvency, and better coordination between the authorities concerned. Some progress has already been made in these areas. It is likely that further improvements will be forthcoming in the future.[41]

However, the orderly resolution of a company can also be assisted by organisational precautions. An appropriate organisational structure makes the resolution of a bank easier in the event of insolvency. The organisation core measure has been designed with this end in mind. Specifically, the measure pursues two objectives:

I. Organisational measures to ensure the continuation of systemically important functions

A bank is systemically important if it provides services which are essential to the functioning of the Swiss economy and which could not be substituted within a reasonable period of time in the event of insolvency (cf. 2.1). Only if the maintenance of systemically important functions (particularly the domestic lending and deposit business, together with payment transactions) is guaranteed in the event of insolvency will the state no longer be forced to save the company as a whole simply to ensure the continuation of these functions.

II. Organisational measures to improve general resolvability

Even if the continuation of systemically important functions is assured, the collapse of a systemically important bank would have far-reaching, and in certain respects unacceptable, consequences for both Switzerland and the international community.

---

[41] Cf. in particular the proposed revision of Swiss bank insolvency legislation (dispatch on the amendment of the Banking Act [protection of deposits] of 12 May 2010 [Federal Gazette 2010 3993 et seq.]).

Above and beyond the continuation of systemically important functions, therefore, further measures need to be taken which boost the resolvability of systemically important banks and thereby reduce the repercussions of insolvency. As a rule, these measures will also have a positive effect when it comes to ensuring the continuation of systemically important functions.

3.6.1 Guidelines for organisational measures

There are numerous points of friction which hinder the efficient resolution of a systemically important bank and in particular the continuation of its systemically important functions. The insolvency legislation of individual countries typically focuses on the domicile of the company in question, but a company may often need to have only one branch in a particular country for that country's legislation to be invoked. The insolvency of a systemically important bank therefore involves a large number of countries. Various authorities have to coordinate the resolution. In such a situation, the procedure to be followed, the assignment of responsibilities and the measures to be taken are governed by the applicable national law, but there can be significant differences between individual legal systems, and the interests of the authorities and countries involved are frequently far from identical. Furthermore, the measures of one country need to be recognised in other countries, which is far from a given from today's standpoint, particularly in the event of conflicting national interests.

While the *situs* of assets and liabilities is usually of marginal significance for a solvent bank, this aspect comes very much to the fore in the event of insolvency. The individual national authorities are responsible for winding up the parts of the overall group based in their jurisdiction. There is a tendency to give preference to domestically-based creditors (and domestically-booked receivables) and to use the assets based in the domestic country to meet the claims of these domestic creditors. This can result in ring-fencing of these assets.

A further complicating factor is that the legal structures of a banking group may not necessarily be aligned with its business areas. The individual (legal) entities are greatly interconnected from a personnel, financial and structural perspective. Employees may work for several entities, individual entities may be financed by others, and the various entities may provide each other with mutual services. These nexuses can be broken by the insolvency of a bank, leading to a situation where essential services may no longer be provided for certain entities. A crisis in one part of the group can thus spread to the group as a whole, thereby increasing losses and additionally complicating (or rendering impossible) a restructuring of the overall group and its individual units.

Imbalances and the likelihood of necessary funds in one country being blocked in another country can be reduced by a bank attempting to achieve a more balanced ratio between its assets and liabilities in the individual jurisdictions and business areas in which it is active.

The coordination work involved can be reduced and a more rapid response facilitated by the alignment of a company's legal structures with its business areas, and through a reduction of the personnel, operating, structural and financing interdependencies between different legal entities. This enables individual business areas to become less dependent on one another, which in turn facilitates the continuation of business activities in the individual areas in the event of insolvency. Where dependencies continue to exist, these must be designed in such a way (through the corresponding design of contracts and structures) that the preservation of key functions – namely those that are systemically important – is ensured even in the event of insolvency.

Above and beyond this, specific measures should be taken to ensure continuation of systemically important functions. If such continuity is to be achieved, the functions in question should, by some means or other, be transferred to an independent legal entity in the event of a crisis. This transfer must be prepared and facilitated, with the relevant functions,

assets and liabilities in question clearly identified on an ongoing basis. Contracts must be structured in such a way that they can be transferred to a new legal entity with minimal complications within a very short space of time. This calls for a certain degree of standardisation in business processes and contracts. In addition, care should be taken to ensure the highest possible degree of legal and geographical congruence between corresponding assets, any collateral, place of fulfilment, place of jurisdiction and applicable law. Only in this way can a rapid and effective separation of systemically important functions be guaranteed in the event of a crisis.

3.6.2 Implementation

Organisational requirements imposed on companies are essentially restrictions on their right to free commercial activity. They also limit competition between institutions and can impair the competitiveness of companies in the international environment. Any such organisational measures therefore require particular justification. The Commission of Experts has taken account of this problem by putting forward a concept whereby organisational measures are dependent on consistent adherence to a rigorous subsidiarity principle (Article 9 para. 3 let. b and para. 4 of the Draft Banking Act).

According to this subsidiarity principle, the onus is primarily on a bank to organise itself in such a way that the continuation of systemically important functions is assured in the event of insolvency. FINMA can impose organisational measures only if a bank is unable to prove that it is appropriately organised and that the maintenance of systemically important functions is guaranteed. This subsidiarity principle is based on the idea that functional requirements are significantly less of a burden than specific requirements.

Given their far-reaching consequences, organisational measures will be implemented only to meet the compulsory minimum objective for Switzerland – namely the maintenance of systemically important functions in the event of insolvency. Any interests of Switzerland (and indeed of other countries) that go beyond this minimum objective are taken account of via incentives. If a bank goes further than this required plan and implements organisational measures to reduce national and international systemic risks straight away, it can then take advantage of a capital rebate for the part of component III that does not serve to finance the emergency plan (cf. 3.6.3).

Minimum goal and precise specification

The fundamental goal to be achieved by the banks is set out directly in law: banks need to organise themselves in such a way that the continuation of systemically important functions is guaranteed (Article 9 para. 3 let. b and para. 4 of the Draft Banking Act). This is a functional requirement as described above.

The onus is on the bank to prove achievement of this goal. The provision of this proof therefore acts as a guarantee that the continuation of systemically important functions is assured. For banks to be able to supply this proof, the nature of the goal needs to be specified precisely by the legislator (cf. Article 10 para. 1 of the Draft Banking Act). There must be no deviation here from the basic idea of the principle of subsidiarity: the goal of ensuring the continuation of systemically important functions is enshrined in the law. The regulator must prepare a list of criteria as a basis to review the achievement of this goal. The criteria must be formulated openly, but the banks should be given significant room for manoeuvre when it comes to the choice of instrument and route they can use to achieve the goal. In particular, care should be taken to avoid a situation in which specific requirements are indirectly created by couching the criteria in too narrow terms. In addition, account should always be taken of the relationship between capital and organisation: the earlier measures

are taken and the more capital is made available, the more time and freedom of manoeuvre there is for ensuring the continuation of systemically important functions.

Whether the goal of ensuring the continuation of systemically important functions is achieved will depend on the measures taken by the bank. The effectiveness of these measures is something that can only be predicted: it cannot therefore be proven with absolute certainty. The crucial point is that the desired impact will be achieved with a very high degree of probability given the current state of knowledge and general experience.

Emergency planning

When it comes to the proof to be supplied by the banks, it should be borne in mind that a bank needs sufficient time to act as well as a sufficient capital base, even in the case of a threatened insolvency. When supplying proof, it is therefore sufficient for a bank to show by means of its emergency plan that the continuation of systemically important functions is assured through implementation of this plan in the time available during a crisis, and at the latest by the time of any insolvency.

The banks must implement the emergency plan prior to any insolvency. To this extent, the proof provided by the bank also relates to a point in time prior to such an insolvency. Proof is deemed to have been supplied if the bank can show that the continuation of systemically important functions is guaranteed even if the remainder of the company becomes insolvent in the aftermath of the implementation of the preparatory actions.

The emergency plan must be designed in such a way that it can be implemented within a very short space of time in the face of a crisis. The timing at which implementation would need to begin, as well as the question of what further organisational measures would need to be taken in addition to the emergency plan itself and even before its implementation, depend on the existing organisation of the bank, the specific emergency plan in question, and the remaining capital cover.

The process of ensuring the continuation of systemically important functions is likely to involve, in one form or another, the transfer of these functions to an independent and new corporate entity ("bridge bank") endowed with sufficient capital funds. The emergency plan must show, in concrete and detailed form, how this transfer to the corresponding bridge bank will be effected, taking into account questions of time, complexity, legal obstacles, and the necessary resources such as staff, infrastructure and systems.

Five general points should be considered: equal treatment of creditors, time and horizon of implementation, the amount of capital required, the homogeneity of business processes, and the degree to which corporate structures are conducive to the process of restructuring. These demands made of the emergency plan and the organisation of the bank are essentially the result of the need for the measures taken to be resilient in the event of bankruptcy, but they also reflect the imperfections of insolvency law that cannot be eliminated through state intervention.

I. Equal treatment of creditors and resilience in the event of bankruptcy

Ensuring that the measures taken to guarantee the continuation of systemically important functions are resilient in the event of bankruptcy require the establishment of specific (qualitative) and temporal parameters for the emergency plan and its implementation.

If the remaining parts of the company cannot be restructured following the transfer of the systemically important functions to a bridge bank and duly goes bankrupt, the threat then exists of a challenge to the corresponding measures under Article 285 of the Debt Collection

and Bankruptcy Act (DCBA). A challenge under Article 285 et seq. of the DCBA may be pursued on the grounds of individual creditors being preferred over others. Legal transactions are considered open to challenge if the borrower accepted consideration that was disproportionately lower than the value of the service provided by the borrower ("gratuitous transactions challenge"), if certain legal acts were undertaken by the borrower at a time when he was already overly indebted ("overindebtedness challenge"), and finally if legal acts were undertaken by the debtor with the intention of disadvantaging creditors or of benefiting individual creditors at the expense of others ("intent challenge"). In the first two cases cited, a challenge is possible only if the legal acts in question were undertaken in the 12 months prior to the start of bankruptcy proceedings, whereas this time horizon extends to five years in the case of the intent challenge.

The risk of a challenge can be largely eliminated by adhering to the following parameters:

- The capital base of the bridge bank following the takeover of the systemically important functions should ideally be equal to that of the remaining company, but should in any case not be higher than that of the remaining company. This ensures equal treatment in this respect.

- Even after the transfer of the systemically important functions, the remaining company should still be equipped with sufficient capital to ensure that a going concern exists as a starting point for orderly resolution or continuation. When evaluating the question of whether a company is a going concern, all available information concerning the future should be taken into account, extending to at least 12 months after the reference date.[42] If the systemically important functions are hived off at a point where the remainder of the company can remain a going concern even after the spin-off, the risk of a legal challenge will be reduced to a reasonable level.

II. Necessary capital

Sufficient capital must be available to ensure implementation of the emergency plan at the point when such implementation is triggered. The capital in question must suffice (i) to absorb the maximum loss of the bank as a whole during the implementation period, (ii) to capitalise the bridge bank in such a way that the preservation of its commercial activities and therefore the continuation of systemically important functions is assured, and (iii) to ensure that the remaining company is a going concern as a starting point for the orderly resolution or continuation of its activities.

The capital necessary for implementation is provided primarily by the capital component III. This is achieved through contingent convertible bonds. Their conversion should ensure that the necessary equity capital becomes available.

III. Homogeneity of business processes

The continuation of systemically important functions in the event of insolvency is typically guaranteed only if the business processes within a bank have a certain degree of homogeneity. This requires in particular that the assets (loans) and liabilities (deposits) per counterparty throughout the group (or throughout the corresponding business unit) are fully and accurately registered. As a rule, a positive factor for ensuring the continuation of

[42] Cf. International Financial Reporting Standards: IFRS (IAS 1). When assessing whether the assumption that a company can continue as a going concern is appropriate, this reporting standard requires management to take into account all available future information extending at least 12 months after the balance sheet reference date, but without being restricted to this period.

systemically important functions is the greatest possible degree of congruence between assets and liabilities. In particular, security interests should be located at the same place as the secured debts, while the enforcement of contracts should be simplified by the corresponding jurisdiction clauses and also congruent "choice of law" clauses where applicable. The homogeneity of business processes ultimately serves to simplify contracts, particularly credit agreements, which in turn greatly simplifies the process of transfer to a bridge bank.

IV. Structures conducive to the process of restructuring

Ensuring the continuation of systemically important functions requires structures that are conducive to the restructuring process. Structures must be designed in such a way that the essential functions for the operation of the individual business units can also be assured following an insolvency. This generally requires a functional unbundling of structures, for example through wide-ranging reduction of geographical asymmetries, limitation of horizontal, unsecured funding, and the regulation of all relationships by means of internal service level agreements (SLAs) which would also be legally enforceable in the event of a crisis.

V. Implementation time and horizon

The latest time when the implementation of the emergency plan would have to begin is established by working back from the time when ordinary business operations can no longer be sustained, i.e. when the minimum requirements regarding capital can no longer be fulfilled (component I) – in other words, when the bank becomes insolvent.

The first thing that needs to be considered here is the period required for implementation of the emergency plan. An extra factor is the additional time span arising from the "going concern" principle and the necessary capital that this requires.

Triggering the emergency measures

The implementation of the emergency plan and the hiving-off of systemically important functions would have far-reaching consequences. The implementation of the emergency plan should therefore be called upon only at an advanced stage of a crisis with the bank in danger of insolvency. It can either kick in when a predefined trigger is reached or by special decree from the supervisory authority.

I. Emergency measures triggered by conversion of the contingent convertible bonds in component III

A threat of insolvency that justifies implementation of the emergency plan is deemed to exist if the minimum capital requirement (component I) is only barely complied with. The latest trigger point for the implementation of the emergency plan must therefore be a common equity ratio that is close to – but always above – the minimum requirement. Here, a certain margin of security should be put in place to take into account of the grey area involved in monitoring capital requirements and valuation risks. Depending on the minimum capital requirement, and taking into account the necessary security margin, a trigger point of 5.0% is envisaged.

Implementation of the emergency plan requires capital. The availability of this capital is first and foremost ensured by the contingent convertible bonds required to cover capital component III. In order for these instruments to fulfil their function of ensuring capital for the emergency plan, their conversion must be tied in with the triggering of the emergency measures. When the point is reached at which the contingent convertible bonds are required

to cover capital component III and conversion is triggered, implementation of the emergency plan must also kick in. This conversion will then of course strengthen the capital base. However, because the conversion of the contingent convertible bonds in component III is the final safety mechanism, there is no longer any room for manoeuvre thereafter, unless the necessary capital requirement for the implementation of the emergency plan is immediately met following the conversion by other means (e.g. through an additional capital increase or through a further issue of contingent convertible bonds).

II. Emergency measures triggered by the imminent threat of other minimum requirements under bank supervisory law being breached

Even if a bank's common equity ratio has not fallen below 5.0%, the maintenance of its commercial activities and the continuation of its systemically important functions can also be placed in jeopardy if there is an imminent likelihood of other minimum requirements under bank supervisory law – particularly those relating to liquidity – being breached. In such a scenario, therefore, the implementation of the emergency plan can also be ordered by the supervisory authority. In this case, the triggering of the emergency measures need not necessarily go hand in hand with conversion of the contingent convertible bonds to cover the capital component III.

3.6.3 Capital rebate

The purpose of, and justification for, supplementary capital requirements for systemically important banks lies in the increased need to prevent an insolvency of these banks or – if the financial condition of such a bank were nonetheless to become critical – to at least ensure the possibility of orderly resolution of the bank in question, including the continuation of systemically important functions. Another objective is to facilitate the restructuring or resolution of the bank as a whole (resolvability). The capital guidelines are therefore designed to compensate for shortcomings and obstacles in national and international insolvency law.

To the extent that the above-mentioned targets can – at least in part – be achieved via other means, the justification for supplementary capital requirements of this scope no longer applies, which is why banks should receive so-called "capital rebates". A capital rebate is conceivable *a priori* only in connection with component III.

To improve national and international resolvability, measures are conceivable at various levels:

- Improvements in the legal environment, for example by facilitating the recognition of legislative measures in the sphere of insolvency abroad, or improvements to decision-making structures, in particular the level of collaboration between the authorities of affected countries (cf. 3.7.1).

- Clearly implemented organisational precautions on the part of the bank that go beyond the emergency planning aspect (cf. 3.6.1 above).

If improvements are achieved at these levels that limit the repercussions of insolvency, the corresponding capital rebates are justified. The only aspect that can be influenced directly by the bank itself, however, is its own organisation.

Ensuring the continuation of systemically important functions by means of an emergency plan and its implementation requires capital. This capital must suffice to capitalise the corresponding bridge bank while at the same time ensuring that the residual company remains a going concern (with a time horizon of at least one year). This capital is supplied via

contingent convertible bonds to cover component III. Given that these additional capital requirements are there to facilitate implementation of the emergency plan, capital rebates are ruled out.

Measures which make it easier for a company to be restructured or which facilitate the resolution of a bankruptcy case (and therefore justify a rebate) thus go beyond the minimum target set out in Article 9 para. 3 let. b of the Draft Banking Act – drawn up solely with Swiss interests in mind and with the aim of ensuring the continuation of systemically important functions in the event of insolvency – or pursue other objectives. As a rule, however, they also have the effect of making it easier to ensure the continuation of systemically important functions. To this extent, the requirements imposed on banks to prove that the continuation of systemically important functions is assured in the event of insolvency will also change, as will the amount of capital needed as a result.

3.7 Further measures

3.7.1 Changes to the law governing the restructuring of banks

Revision of bank insolvency law

The aim of the new bank insolvency law in Switzerland[43] is to expedite the restructuring of systemically important banks in particular, and when restructuring fails, facilitate the orderly resolution of banks. The main purpose of the amendments is to make the procedure simpler and more flexible, while enabling certain business divisions and services to be hived off and maintained independently. The intention is therefore to facilitate legal recognition of foreign bankruptcy orders and restructuring measures (as a precursor to any action), thus promoting international cooperation. Amending bank insolvency legislation would be an important first step towards improving the resolvability of systemically important banks, while creating the necessary legal conditions for the continuation of systemically important functions in a crisis.

More specifically, the amendments to bank insolvency legislation would bring the following improvements:

- A more flexible restructuring process would remove the need to follow a rigid procedure (formal commencement of proceedings, appointment of a restructuring administrator, etc.) and would enable the restructuring plan to be presented and approved immediately upon commencement of proceedings (Article 28 et seq. of the Draft Banking Act; dispatch section 1.5.2.1).

- It ought to be possible to maintain specific banking services without the need to restructure the entire bank (dispatch section 1.5.2.2). Article 30 of the Draft Banking Act provides that parts of the bank together with the assets and liabilities – predominantly systemically important functions – may be transferred to another bank or a transition bank (bridge bank or remainder of a bank).

- The Act (Article 31 para. 3 of the Draft Banking Act; dispatch section 2.1) aims to define the scope of the supervisory authority's powers of intervention in relation to capital and debt. Under such powers, the supervisory authority is entitled to reduce existing capital

[43] Cf. dispatch on the amendment of the Banking Act (protection of deposits) of 12 May 2010 (Federal Gazette 2010 3993 et seq.).

during restructuring proceedings, create new capital and convert debt into equity (debt-equity swaps) through the adoption of an official measure (restructuring plan).[44]

- Where, for example, the restructuring plan encroaches upon creditor rights, creditors should be given the opportunity to reject the restructuring plan during the approval process or earlier (Article 31a of the Draft Banking Act). If the plan is rejected by the majority of creditors, bankruptcy proceedings must be commenced. The essential difference between this and the current regime[45] is that there is no requirement to consult creditors in advance regarding the applicable measures, i.e. before the restructuring plan is produced.

- The simplified process for recognising foreign bankruptcy orders in Switzerland, as well as other insolvency measures, e.g. protective and restructuring actions ordered by foreign authorities, should promote international harmonisation of procedures for the resolution of banks engaged in cross-border operations (Article 37g of the Draft Banking Act; dispatch section 1.5.2.4).

Improved international coordination

The inability to recognise and implement insolvency measures initiated in one country may cause adverse effects in other countries, such as the termination of contractual relationships, or the enforcement of claims by individual creditors. As a result, measures taken to safeguard national interests, particularly the ring-fencing of assets, may frustrate solutions adopted by whole groups.

To enable cross-border resolution, equivalent measures must be available in the relevant jurisdictions. For example, it ought to be possible for an individual country to recognise and implement measures ordered in other countries. This requires resolution authorities with appropriate powers to coordinate and reach prior binding agreements on possible courses of action, so that such measures can be recognised and the relevant orders made.

Within Switzerland, the new bank insolvency provisions under the Banking Act should create the legal framework for facilitating the recognition of foreign bankruptcy orders as well as other restructuring and protective measures ordered in respect of insolvencies. In enabling the continuation of specific banking services and the transfer of such services to other institutions or a bridge bank, this reform provides an important basis for the consolidation of bank restructuring in Switzerland. In addition, Switzerland is working with countries of specific interest to achieve the mutual recognition, or at least coordination, of insolvency measures.

Organisational structure is also crucially important in this context. The coordinated restructuring and resolution of global financial institutions at international level is firstly feasible only if the equitable treatment of creditors is ensured, and secondly, and more importantly, if the authorities concerned can be certain that the creditors included in the ambit of their protection will be in a better, or at least the same, position as if the proceedings had been initiated as a unilateral action on the part of a single country. To facilitate this process, it may be expedient to maintain a good balance between assets and liabilities at regional level.

No international restructuring or bankruptcy law currently exists. With so many different interests involved, it is also difficult to see how a procedure can be established that applies solely to global financial institutions. Under the auspices of the UN (UNCITRAL), efforts are

---

[44] Any official decision to utilise debt-equity swaps represents a significant encroachment upon creditor rights and may be made only if holders fully surrender their claims in advance.

[45] Cf. Articles 29 and 30 of the Banking Act.

underway to achieve international harmonisation of bankruptcy law for global financial institutions. Quite apart from the fact that these initiatives are still in the early stages, and it is likely to be years before any consensus emerges, countries would also have to ratify a UN bankruptcy convention and follow the applicable procedures for enacting this into national law. As a result, it is not expected that such proposals will be implemented in the short to medium term.

3.7.2 More effective and increased use of market infrastructure for over-the-counter derivatives

The over-the-counter derivatives (OTC derivatives[46]) market has been growing steadily since 2008. Although OTC derivatives did not cause the financial crisis, there were clearly risks associated with such transactions. In particular, the credit derivatives market became highly complex and non-transparent due to interconnections between market participants and the size of the market[47]. Even before the crisis, international supervisory authorities overseeing the largest derivatives traders had taken steps towards improving market infrastructure and bank processes.[48] One key measure is the introduction of central counterparties. In an OTC market with a central counterparty, contracts are still negotiated between two market participants, but claims and obligations under the contract are assigned to a central counterparty, who is responsible for settling the transaction correctly, receiving collateral from the parties and offsetting claims and obligations of a single counterparty under other contracts. This mechanism significantly reduces open positions and thus the credit risks to which each of the market participants are exposed. It also reduces the contagion effects, which can spread from a failed market participant to other participants.[49] The clearing of OTC derivatives through a central counterparty requires products to be standardised.[50] Market participants are therefore cooperating with the supervisory authorities to find appropriate levels of standardisation for various types of derivative by aligning contractual terms and operational processing. Central counterparty services have been available in the US and Europe since the beginning of 2009. The medium-term goal is the mandatory clearing by market participants (including UBS and Credit Suisse) of all standardised derivatives through a central counterparty. In line with the international measures being implemented, FINMA is overseeing the development of products by FINMA-regulated banks which can be cleared through a central counterparty, as well as improvements to bank infrastructure. Work is also underway at international level to increase OTC market transparency for supervisory authorities and market participants by making it compulsory for derivatives traders to supply relevant transaction information to central databases.

The Basel Committee on Banking Supervision is currently considering the issue of central counterparties as part of its ongoing deliberations on the revision of capital adequacy rules (Basel III). It is intended that the level of required capital for OTC derivatives cleared through central counterparties will be lower than for OTC derivatives settled bilaterally between counterparties. This will create an added incentive for banks to settle a greater number of transactions through central counterparties. These rules would also apply to Swiss banks.

---

46 An OTC derivative is a derivative that is traded between two parties and not through an exchange.

47 At the end of June 2008, the volume of CDS contracts was around USD 60 billion.

48 By December 2009, these various initiatives had reduced the volume of credit derivatives to around USD 30 billion, in particular through portfolio compression (eliminating economically redundant transactions.

49 However, the introduction of a central counterparty would mean a concentration of credit risk on that central counterparty. The central counterparty must therefore have a highly robust and conservative approach to risk management to ensure that it is able to discharge its liabilities in the event of the failure of any one or more participants.

50 Other aspects need to be considered to allow clearance of OTC derivatives through a central counterparty, including the product risk profile, the availability of reliable price information and trading liquidity.

The initiatives to improve market infrastructure and bank processes and create capital adequacy incentives, as described above, are deemed to be adequate. For the time being, no further measures will be implemented with regard to this issue.

3.7.3 Remuneration systems

Rules governing the remuneration systems of financial institutions can generally help to mitigate risk and alleviate the TBTF problem. The FINMA circular on remuneration schemes dated 21 October 2009[51] lays down rules for the remuneration of employees of financial institutions. The circular implements the recommendations of the FSB regarding remuneration systems. The rules primarily cover the payment of variable remuneration linked to financial performance. In structuring variable remuneration, due consideration should be given to the company's long-term performance and the risks incurred to generate such performance. The FINMA rules require individuals at higher levels of the hierarchy to receive a significant part of their variable remuneration with deferred effect and thus in a way that is linked to risk. The level of deferred remuneration should vary depending on future performance and risks. This will promote the risk awareness of beneficiaries and create incentives to operate the business in a sustainable manner. The formulation of rules on remuneration schemes and the monitoring of such rules by FINMA are an important step towards mitigating risk in financial institutions. In all other respects, remuneration is not directly relevant to the TBTF issue.

3.8 Measures not pursued further

Although various other measures were assessed, these were not pursued further because the core measures described above will be more effective in reducing the TBTF problem.

Measures such as the **dismantling of big banks** and imposing **direct size restrictions**, either at the level of total assets or market share, have been rejected as disproportionate. Measures to reduce potential threats and facilitate resolution, for example, are also found to be inappropriate. Measures placing direct constraints on business models have also been rejected, i.e. narrow banking requiring deposit-taking banks to hold only low-risk, liquid assets, as these would essentially preclude risk-taking, one of the key economic functions performed by banks.

The Commission also decided not to pursue the burden sharing option, i.e. splitting up obligations to rescue failing banks between two or more countries, or the establishment of a **dual domicile status**, given that the international consensus required for such measures is currently lacking.

The **competition law approach** is also perceived to be insufficiently precise for the purpose of addressing the TBTF issue.

Structural measures, such as specifying a holding company structure, do not in themselves limit corporate group liability, or create the framework for facilitating crisis management or bank resolvability. Holding company structures only limit group liability provided there is full legal separation of entities within the group, and operations and staff are also kept fully separate. However, this would largely eliminate the economies of scale enjoyed by banking groups with global operations. It is also likely that Switzerland would effectively be pressured into rescuing subsidiaries by countries adversely affected by their bankruptcy. For all these reasons, no specific structural measures are recommended by the Commission for

[51] FINMA Circular 10/1, Minimum standards for remuneration schemes of financial institutions.

systemically important banks. Instead, preference is given to a workable system of incentives. For example, a group that improves its resolvability beyond the minimum organisational preparations required for maintaining systemically important functions, which would only be operative within Switzerland, would be rewarded with lower levels of additional required capital for systemic risk. Such measures for improvement may also include structural elements, although their overall efficacy would be gauged only in the event of restructuring or liquidation.

The Commission has decided not to **"ban proprietary trading"** and thus separate proprietary trading from deposit transactions (separation of commercial and investment banking). Firstly, the definition of proprietary trading is far from clear. Secondly, proprietary trading could move into a less regulated sector – possibly on a systemically important scale. Imposing indirect levies on trading risks by laying down appropriate capital requirements is therefore a more promising option. In the wake of the financial crisis, the Basel Committee on Banking Supervision has strengthened the capital requirements for trading and securitisation activities. A national working group headed by FINMA has incorporated these new requirements into the CAO amendments currently underway. The amendments are due to come into force in Switzerland on 1 January 2011. In discharging its supervisory function, FINMA will also ensure that such trading activities are appropriately monitored and initiate any further prudential measures that may be required.

Tax and insurance solutions were also investigated. The Commission concluded that such measures would only be of limited efficacy in reducing the TBTF problem. Any such solutions aimed at allocating the costs of the financial crisis to the parties responsible should ensure full compensation for the government interventions required. Ideally, tax and insurance solutions would have the positive effect of reducing the likelihood of future crises, or precluding the passing on of the costs of future crises to governments. Three lines of approach have been defined: transaction taxes, direct levies on banks and a financial activity tax. These taxes and levies would either compensate governments ex post for rescue costs incurred in the current financial crisis or allow a stability fund to be built up ex ante to ward against future crises. It is unlikely that any common set of measures will be established at international level, although a standardised solution within the EU financial sector may be feasible. One crucial consideration is that the "insurance effect" of any stability fund may reinforce the moral hazard, with additional taxes and levies ratcheting up the cost of banking services. Managing risk by imposing additional taxes on banks would also mitigate against institutions building up capital from earnings for future stability.

The Appendix contains further information on measures that will not be pursued further, as outlined above:

- In A6.4, the measures that were not pursued further are evaluated in the light of the criteria defined in section 3.2.
- The issue of regulating proprietary trading is dealt with in depth in A7.
- The competition law approach is presented and assessed in A8.
- The efficacy of tax measures is assessed in A9.

4 Recommended policy mix

The core measures mentioned above are those identified by the Commission of Experts as being most effective in reducing the risks presented by systemically important institutions without imposing unnecessary constraints on the economic freedom of the banks concerned. These measures have different strategic thrusts. In part, they are designed to have a preventive effect and avert insolvency. They also have a curative action by minimising the negative repercussions of a bankruptcy while at the same time ensuring the maintenance of systemically important functions in the case of insolvency, so that the state is no longer forced to rescue the entire bank simply in order to safeguard these functions. Therefore, the bankruptcy of a systemically important bank becomes a real possibility and the distorting effect of an implicit state guarantee is eliminated.

Given the different strategic thrusts and objectives, the full range of core measures is needed in order to tackle the TBTF problem effectively. The Commission of Experts therefore combined the core measures into a coordinated package of measures, or recommended policy mix.

Current legislation will have to be revised in order to implement this policy mix. The Commission of Experts has consequently produced a draft for a partial revision of the Banking Act, which forms the legal foundation for implementing the proposed measures.

The package of measures includes specific requirements under supervisory law for systemically important banks in four areas: capital, liquidity, risk diversification and organisation. With the reserve capital and convertible capital, fulfilment of the capital requirements should be simplified and made easier, and the convertible capital should ensure the implementation of organisational measures.

4.1 Summary of core measures and how the policy mix works

The measures concerning capital and organisation play a central role in the proposed policy mix. Systemically important banks are subject to supplementary capital requirements and must take the necessary preparatory measures on an organisational level to guarantee the continuation of systemically important functions. These two measures then have a combined effect (cf. Figure 3): if the bank's capital falls below a predefined common equity ratio, the emergency plan will kick in so that systemically important functions (namely the domestic lending and deposit business, as well as payment transactions) are quickly transferred to a new legal entity. At the same time, the contingent convertible bonds which the bank must hold as part of the supplementary capital requirements will be converted into common equity. This ensures that the emergency plan can go ahead with a sufficient capital base.

The **capital** core measure is based on a concept with three capital components. Firstly, systemically important banks must always meet a minimum requirement that corresponds to the international minimum stipulated under Basel III. Secondly, systemically important banks must put in place a buffer of loss-absorbing capital. Part of this buffer can be covered by contingent convertible bonds. Thirdly, potential capital in the form of contingent convertible bonds must also be made available, whereby the scale of this third component is progressive depending on the systemic importance of the banks.

Each of these components has different objectives:

- The **minimum requirement** (component I) ensures that the bank has sufficient capital to continue its business operations.

- The **buffer** (component II) should allow the bank to absorb major losses without any disruption to its normal business operations and without suffering any loss of confidence among counterparties or clients.

- The **progressive component** (component III) is designed to avert the negative external effects of the commercial activity of systemically important banks on the national economy and on the general public insofar as possible: systemically important banks should also have to bear the risks associated with their business activity themselves, in other words without the support of an implicit state guarantee.

Introducing stricter capital requirements for systemically important banks ensures there is enough capital and ultimately sufficient time to deal with any crisis in a systemically important bank. In particular, arrangements must be in place in the event of insolvency to outsource and maintain systemically important functions in an independent legal entity ("bridge bank"). Such transfer is possible only if the bank is sufficiently solvent when the function is outsourced. This solvency is ensured by component III.

The question of which functions are systemically important and whose continuation must therefore be guaranteed has to be considered from the perspective of the individual country. The failure of a systemically important bank in Switzerland would also have knock-on effects for foreign financial markets and counterparties, however. Restricting the focus of Swiss TBTF legislation to the protection of Swiss systemically important functions without taking into account foreign interests would therefore fail to give due consideration to this international dimension. It would complicate international recognition of Swiss measures and could permanently damage the reputation of Switzerland's financial centre. Additional arrangements therefore need to be put in place in order to preserve Switzerland's international credibility and to cater for hurdles typically encountered when resolving a big bank in distress. The supplementary capital required for systemically important banks is thus set at a level that not only ensures the implementation of organisational measures, but in addition reduces the insolvency risks of systemically important banks – compared to other banks – thereby accommodating the needs of other countries.

Ultimately, the capital requirements should act as an incentive for banks to limit their systemic importance. As far as the banks are concerned, a high level of systemic importance should be less attractive than a low level.

If a systemically important bank still suffers a massive deterioration in its solvency despite the higher capital requirement, the core measure **organisation** is intended to improve its resolvability. The priority here is to ensure that all the bank's systemically important functions can continue even if it becomes insolvent. Organisational measures on the part of banks can therefore be seen as a supplement to national and international insolvency law.

Imposing organisational standards on banks can affect their constitutionally guaranteed rights. It can limit their right to freely pursue their economic activity and can distort competition. Allowances are made for this by stipulating that the organisational measures imposed by supervisory authorities must comply with the principle of proportionality and in particular are also bound by a strict principle of subsidiarity: it is primarily up to each systemically important bank to organise itself in such a way that the maintenance of systemically important functions is guaranteed in the event of insolvency. If, however, the bank cannot prove its ability to maintain these functions, the supervisory authority should order the requisite organisational measures.

Adequate capital cover gives room for manoeuvre even in crisis situations. In order to prove that the continuation of systemically important functions can be guaranteed, it may be enough, under the principle of proportionality, for the bank to have a concrete emergency plan in place showing how these functions will be transferred in a crisis situation and thus

safeguarded in the case of insolvency. When drawing up an emergency plan, special care must be taken to ensure that the measures in question do not distort competition and can be implemented in a short space of time, and that the necessary capital is available for their implementation. This capital is provided by the contingent convertible bonds in component III.

This capital is needed to put the emergency plan into action. For this reason, as soon as common equity falls below a defined ratio and triggers the conversion of contingent convertible bonds, the emergency plan is activated at the same time. Furthermore, the supervisory authority can order the emergency plan to be implemented even before the trigger is reached in the event of the maintenance of systemically important functions being jeopardised by the imminent violation of other minimum requirements imposed by the bank supervisory authority.

The progressive component of capital requirements also serves to cushion the potential consequences of the insolvency of a systemically important bank abroad. Where the resolution of a systemically important bank is substantially improved as a result of the bank's organisational measures or through improvements in insolvency law and insolvency proceedings, thereby mitigating the negative effects of a bank's insolvency, the bank is to be granted appropriate **discounts for the progressive component**.

Like the capital core measure, **liquidity** also has a preventive action. This comprises newly developed liquidity requirements for the big banks. These have been defined by FINMA and the SNB in close cooperation with the big banks. They are based on the following concept: the authorities define a general stress scenario and the relevant parameters, and the big banks determine the projected inflows and outflows under this scenario. The stress scenario assumes a general financial market crisis combined with a major, specific loss of confidence by creditors in the bank. The banks must have sufficient liquidity to cover the estimated outflows in such a scenario over a period of at least one month. This provides the minimum timeframe needed for the affected banks and the authorities to initiate the requisite corrective measures. The liquidity regime for big banks took effect on 30 June 2010 in the shape of an agreement. Within the scope of the TBTF measures, it is now a case of establishing a legal basis for these guiding principles.

The core measure **risk diversification** is intended to reduce the risk of the failure of one bank destabilising other banks due to interbank linkages. This measure therefore helps to reduce the systemic importance of individual institutions. The planned amendments to the risk diversification requirements are intended as an incentive to reduce risk concentrations in relation to systemically important banks. These amendments should come into force at the start of January 2011. In addition, measures are being proposed to tighten up the risk diversification rules even further and to reduce the operational dependency on systemically important banks.

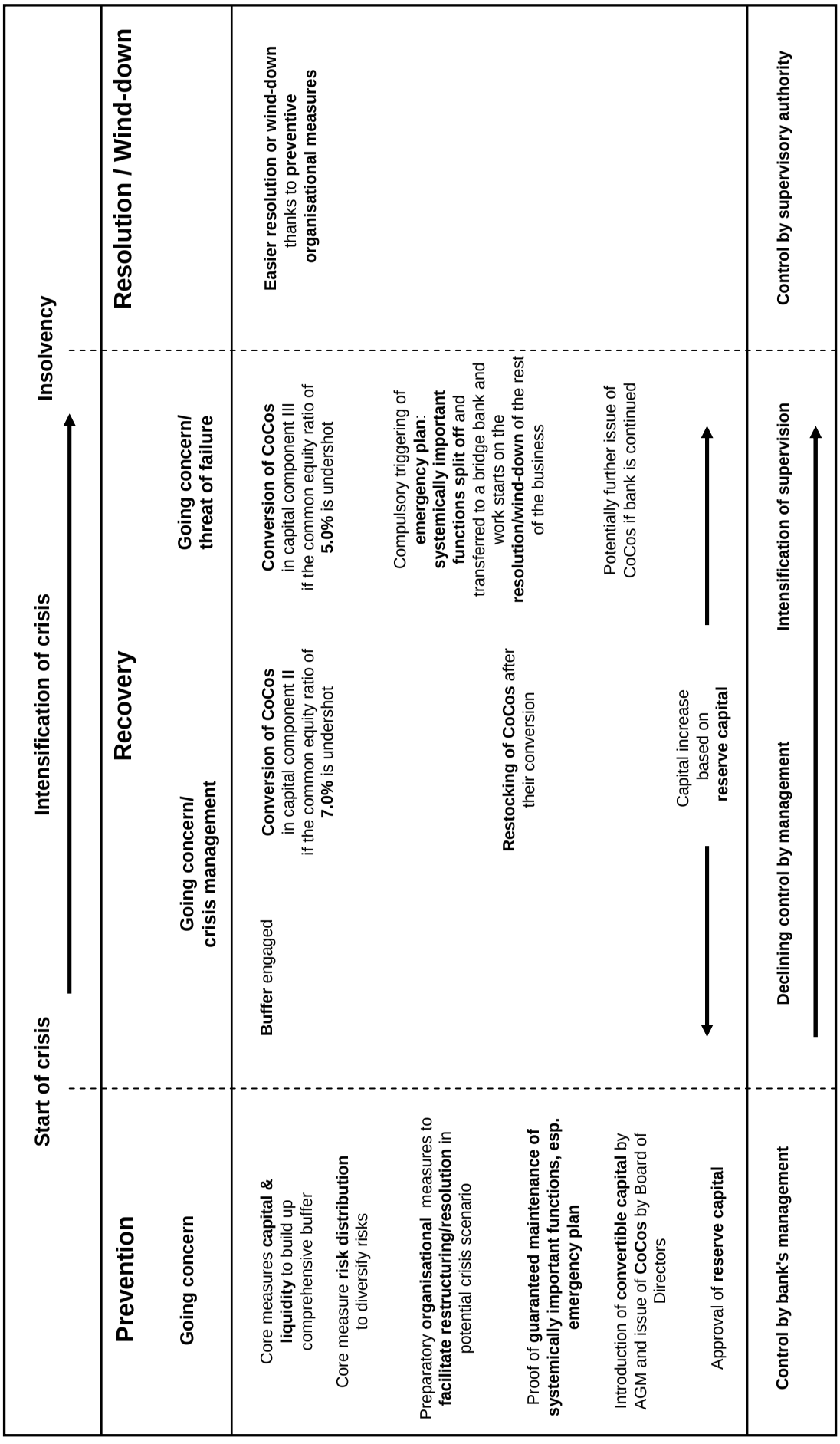


Figure 3: Depiction of how the policy mix works

4.2 Assessment of the impacts of the measures

The assessment of the proposed measures must ultimately concentrate on a **cost/benefit analysis**. It must first be said that an exact quantitative analysis of these impacts is exceptionally difficult and carries a significant degree of uncertainty. Macroeconomic models with an explicitly formulated banking system that permit direct analysis of the correlation between regulatory requirements, bank financing costs, credit market conditions and gross domestic product (GDP) would be extremely complex and have not been developed so far. It is therefore necessary to employ simplified constructions that are subject to numerous provisos. Here the assessment has to rely on a range of available approaches and weight them according to their plausibility and presumed reliability. It also has to supplement formal results with qualitative aspects which cannot be captured by a model.

The benefit of the proposed measures to the economy as a whole is reflected in many areas. Firstly through the preventive effect which manifests itself in the **reduced probability and intensity of future financial crises** and the reduction in overall economic volatility. It will probably never be possible to prevent financial crises entirely. But it should be possible to reduce their frequency and the high economic costs caused on average over the long term. Secondly, the proposed policy mix also helps to restore the order that the market needs. In an ideal scenario, it should be possible to resolve even large systemically important banks in an orderly fashion. This would once again allow the structural change that is crucial for long-term economic growth: poor business performance is then sanctioned by the markets. Thirdly, this eliminates the distortion of competition in favour of systemically important banks (which pay a lower risk premium). Fourthly, there is less of a risk that state bail-outs will be necessary in future. In other words, the shareholders – rather than the taxpayers – are liable for any losses made by systemically important banks. These benefits will show themselves mainly in the long run, but will obviously appear sooner if the pace of reform is quicker. Long-term stability and more hawkish expectations could, however, lead to stronger confidence and lower risk premiums even in the short term.

According to most of the models applied, the possible costs of the measures are concentrated in their potential **impact on banks' financing costs** and their knock-on effects on credit interest rates, credit supply and overall economic output (GDP). As far as costs are concerned, a distinction has to be made between the costs of a transition to a new regulatory regime and the long-term effects once the transition has been completed. These latter effects are likely to be far smaller than the former, and the transitional costs will in turn tend to be lower if the transition period is longer. It should also be noted that the removal of the implicit state guarantee for TBTF banks could lead them to experience cost increases, which must not be confused with additional costs incurred by the economy as a whole. The economy has already been exposed in the past to these costs in the form of market distortion and crisis costs which have not however been borne by the originators of these costs – the banks and their clients. The precise purpose of the proposed regulation is to internalise these costs.

4.2.1 Economic benefits

According to initial estimates, which still require further validation, the proposed policy mix is expected to produce **significant long-term economic benefits**. The benefit of reform measures depends on different factors and to some extent is difficult to quantify precisely. Advantages can be identified at the following levels:

Prevention

More rigorous liquidity and capital requirements are particularly effective at significantly reducing the probability of financial crisis and state bailouts in future. History shows that financial crises exact a very heavy toll. Averaged out over time and different countries, a

banking crisis occurs roughly every 20-25 years, which amounts to a crisis probability of around 5%[52]; it generally brings heavy output losses lasting several years, or in some cases permanently (cumulative losses in the region of 20% to 100% of annual GDP compared with pre-crisis levels). It is difficult to assess the extent to which the probability of a crisis can be reduced. It has been found, however, that their frequency depends on the regulatory regime: over the period 1940-1980, when regulations were comparatively tight, financial crises were much less common than during periods of weaker regulation. Their frequency can also vary significantly between countries with different bank structures and regulatory systems. The Basel Committee estimates that a reduction of just one percentage point in crisis probability would result in a permanent boost of around 0.6% to annual GDP growth. This assumes that a crisis only leaves relatively small lasting effects. The estimated impacts are 0.2% if a crisis leaves no permanent effects at all, or 1.6% if the impacts are significant and permanent. According to these estimates, increasing the capital requirements by one or two percentage points (from 7% to 8%, or from 7% to 9%) reduces the crisis probability from 4.6% to 3% or to 1.9%.[53]

Market sanction mechanism

For an economy to function well in the long term, particularly with regard to the efficient allocation of limited resources, it is vital that poorly performing companies are ejected from the market and replaced by new businesses. This rule has not applied to systemically important companies to date.

The purpose of the proposed measures is to ensure that even systemically important banks can be resolved in an orderly fashion. This would allow the market sanction mechanism needed to ensure adequate consideration of risks to function properly and also permits the structural change that is vital for long-term economic growth.

Eliminating distortion to competition

The new TBTF regulations introduce stricter requirements for systemically important banks than for those which are not systemically important, and eliminate any unfair advantages resulting from a state guarantee.

Originator principle

While the profits made by systemically important companies have been paid out to shareholders in the past, it has been taxpayers who have on occasion had to bear their losses during crisis periods. The proposed measures ensure that bank owners and capital providers have to carry the risk themselves.

4.2.2 Acceptable transition costs

Two BIS working groups have assessed the impact, in terms of cost, of more rigorous capital and liquidity requirements using different types of models for many countries.[54] Most of these models use a tool such as the satellite model mentioned earlier, where the relationship between the government and credit market conditions (credit interest rates and credit

[52] Reinhart, C.M. and K.S. Rogoff, "This Time is Different: A Panoramic View of Eight Centuries of Financial Crises", NBER Working Paper No. 13882, 2008.

[53] Bank for International Settlements, interim report of the Macroeconomic Assessment Group, "An assessment of the long-term economic impact of stronger capital and liquidity requirements", 2010.

[54] Bank for International Settlements, interim report of the Macroeconomic Assessment Group, "Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements", 2010.

volume) is first simulated in a partial model, and the correlation between credit market conditions and macroeconomic indicators are assessed in a second stage using existing macro models. On average, these models estimate for each percentage point increase in the common equity ratio[55], subject to an implementation period of four years, relatively moderate transition costs, namely a maximum output loss after four years of around 0.2% compared with a reference scenario without regulatory reform. Over the course of time, this output loss steadily decreases again; the estimated cost effects for this transition phase are significantly higher than over the long term. In addition, the transition costs are lower the longer the transition period, which indicates that suitably long periods should be set for the transition to a new regulatory regime. As far as Switzerland is concerned, it should be noted in this context that the specific Swiss requirements are actually higher than the newly agreed international minimum requirements.

The **estimates of the Basel Committee** exclude a series of factors that are difficult or impossible to capture with a model, for example the fact that apart from raising their credit margins, there are a number of other ways in which banks can adapt, such as cutting costs through lower-priced compensation models or selling off parts of their non-credit portfolio. This would mean that the effective costs would be even lower than those quoted in the model calculations. On the other hand, there are also various factors that could lead to the transition costs being underestimated. For example, it is very hard to estimate the amount of time needed for capital markets to absorb the banks' new financing requirements and to come up with new financial instruments to meet their needs. It could therefore be the case that the models underestimate the impact of the length of transition period allowed for implementing the new requirements. Costs may also vary significantly depending on the circumstances of specific countries.

The **Institute of International Finance (IIF)**, which has close ties with the big international banks, has also calculated the economic costs of the policy mix discussed by the Basel Committee.[56]

The IIF estimates that initially the proposed measures to strengthen the quantity and quality of capital and the collective measures to boost liquidity over the period 2010-2015 for the banks in the United States, Europe (EU) and Japan will require a total of USD 0.7 trillion of additional common equity and USD 5.4 trillion in additional long-term debt capital. In the next step of the model, this additional capital requirement results in a higher yield demanded by investors from banks (even more so if the transition period is shorter). In a third stage of the model, the impact of higher financing costs is then carried over to credit interest rates and volumes. In the fourth model stage, the impact of the resulting tightening of credit market conditions on gross domestic product is estimated. The model calculations predict significant costs for the national economy particularly during the transition period: for Switzerland, a cumulative GDP loss totalling around 2.6% for the period 2011-2015. This is roughly in line with the estimate for the United States, but much lower than the average value for the euro zone (4.3%).

In the longer-term view, however, IIF also assesses the costs as being relatively moderate, although they are once again higher than the long-term consensus forecasts of the Basel Committee.

The IIF estimates are based on a comprehensive package of reforms incorporating certain elements that have not even been defined yet, such as a far greater reliance on long-term

---

[55] Calculated as the ratio of tangible common equity to RWA.

[56] Institute of International Finance, "Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework", 2010.

financing sources as a result of the introduction of a net stable funding ratio. However, the IIF estimates do not yet take into account the potential consequences of the unweighted leverage ratio.

One of the problems with both the Basel Committee and IIF models is the modelling of the capital available to banks. The models used in the Basel Committee study are based on the principle of the historical financing costs for capital. They fail to take into consideration the fact that higher capital buffers for bank shareholders and creditors imply lower risks, which should ultimately result in cheaper financing costs for the banks. In the IIF model, the price demanded by the market for banks' capital is modelled as the sum of an exogenously applied target yield and three adjustment factors that reflect the extent to which banks are tapping the capital market, among other things. The exogenous nature of the target yield – set at 10% for Switzerland, 12.5% for the United States, 10% for Europe and 5% for Japan – is a core weakness of the model. Although these values are based on historical observations, they are ultimately fed in externally. But they heavily influence the model's results. More credible forecasts would require the target yield to be modelled as an endogenous value. Such a model would have to reflect the security of the capital, or in other words it would be dependent upon the effective level of capitalisation (relative to the bank's risk).

Banks' capital is expensive at the moment because the levels of capital are low, which means the associated risks for investors are high. If the banks had substantially higher capital buffers, investors would be more willing to accept the lower returns. In the short term, however, the market's receptiveness to bank capital is limited. As a result, the yields demanded could, in certain phases, be higher than the target yield. Obviously, the level of return demanded also depends on a host of other factors, such as yield expectations in other sectors.

The transmission of higher financing costs to credit interest rates and volumes is very mechanical in the IIF model and also in some of the models used in the Basel Committee studies. The bank sector is treated almost as a monopolist and no allowances are made for the effects of competition between banks in the credit market. This is even truer for the transmission of credit volume to the real economy – particularly in the IIF model. The possibility of substitution between credit granted by banks and other capital providers (capital market, "non-banks") is not given sufficient consideration. The models of the Basel studies are to some extent more differentiated in this area.

When applying the models to Switzerland, it should be noted in particular that the distinction between measures affecting all banks equally and special measures that apply only to systemically important banks is extremely important for evaluating the proposed policy mix. This presupposes differentiating between these banks and the unaffected banks, and also taking into account the competition between them in the credit market. It is not clear whether and to what extent those banks specifically affected can pass on their higher financing costs to the credit interest rates they offer. None of the available models answers this question.

Furthermore, when applying the model to Switzerland, greater consideration has to be given to the international dimension of the banking industry than is provided by most of the models discussed.

The Swiss case study examined in the Basel Committee reports shows that the tightening of capital requirements for the large banks already introduced at the end of 2008 – which these banks have already adjusted to, even though they have a binding effect only as of 2013 – has so far had no effects on the domestic credit market. There is no evidence of a credit crunch, higher interest rates for credit or a significant impact of the stricter regulatory regime on GDP. The IIF study also acknowledges this. However, the IIF argues that from 2010 onwards the adjustment to the balance sheet to comply with regulatory changes will now be made via domestic and foreign credits in equal measure. Up to now, these adjustments have

primarily been made via the banks' trading and derivatives positions. It is not clear, however, why this adjustment approach should fundamentally change. Neither trading nor derivative portfolio assets stand at zero. At year-end 2009, the banks' trading portfolio assets stood at around CHF 500 billion, and credit derivatives alone amounted to some CHF 200 billion. These values are significantly lower than the peaks recorded in 2007, but are still at a high level and are considerably higher than the domestic credit volume of approximately CHF 300 billion at the end of 2009.

4.2.3 Conclusion[57]

The cost/benefit analysis clearly shows that the **net effect** of the proposed policy mix is to be considered **positive**. This is immediately clear from the moderate cost estimates of the Basel Committee. But even with the IIF's significantly higher cost estimates – which represent by far the upper limit across the spectrum of available models – the long-term cost/benefit ratio is likely to remain attractive, in other words the long-term (permanent) benefit exceeds the long-term cost effect. The fact that transition costs depend heavily on the length of the transition periods suggests that a sufficiently long period should be granted for introducing the more rigorous requirements.

4.3 Switzerland's policy mix in an international context

4.3.1 Introduction

The package of measures proposed by the Commission of Experts is in line with international efforts. In addition to various national reform initiatives, both the Basel Committee and the FSB are working on reforms that are also directly relevant for Switzerland's big banks.[58] Important cornerstones of the new banking regulations – Basel III – have been in place since 12 September 2010. The FSB has already submitted an interim report, and the final report will be ready for the G20 summit of heads of government in November 2010.

The new regulations set out under Basel III are intended as minimum standards. They are binding on all banks and are therefore designed to apply to all international financial institutions, irrespective of their systemic importance. The calibration is geared to the average, and fails to address the TBTF problem effectively. Moreover, the calibration does not take into account the special situation in Switzerland.

The FSB is discussing the problem of systemically important banks or, rather, systemically important financial institutions (SIFIs). It is working alongside the Basel Committee to draft measures for SIFIs. These include additional capital and liquidity requirements (known as "surcharges"), tighter supervision of SIFIs, requirements governing their organisational and legal structure, as well as measures to improve their resolvability.

---

[57] To ensure a suitable weighting of the Basel and IIF results, it should be remembered that the Basel studies contain average values from a large number of separate country models which in some cases are based on quite different methodology and cover a broad spectrum of technical models, while the IIF study only applies a single model (with four regional or national implementation scenarios).

[58] See also 1.4 and the overview table in Appendix A4.

The FSB states that each country should develop a policy framework for systemically important institutions, a so-called "SIFI policy".[59] In particular, all countries must be able to impose surcharges on SIFIs commensurate with their systemic importance.[60]

The FSB plans to grant countries a certain amount of flexibility, or "constrained discretion", when implementing their SIFI policy at national level. As long as they comply with certain minimum standards, sovereign states will therefore be able to put together a reform package tailored to their national circumstances from the menu of proposed reforms.[61] In addition, the FSB will use a peer review process to ensure that national reforms are effective and compatible with FSB principles.

The package of measures proposed by the Commission of Experts constitutes a SIFI policy as set out by the FSB and is also in line with the proposals of both the Basel Committee and the FSB as far as its basic principles are concerned. The policy mix is tailored to the special situation in Switzerland, with its particularly acute TBTF problem.

In the following section, the package of measures proposed by the Commission of Experts is compared in more detail with the new international standards.

4.3.2 Comparison of capital requirements

The Commission of Experts is adopting the **minimum requirement** stipulated by Basel III, i.e. that banks must hold total capital of 8%, of which 4.5% common equity and 6% Tier 1 capital.

Comparison of the other components (buffer and progressive component) is complicated by the fact that the Basel regulations are valid for all banks, while the current proposals have been specifically designed for systemically important banks, and the international discussion on a capital surcharge for systemically important banks has not yet been concluded. The difference between the international minimum requirements and the Commission of Experts' proposals will narrow if the international minimum requirement is supplemented by a surcharge for systemically important banks.

Basel III imposes a **buffer** (capital conservation buffer) of 2.5% common equity. This compares with a buffer of 8.5% proposed by the Commission of Experts, of which 5.5% is held in common equity and 3% in CoCos.

In addition, the Commission's proposal contains a third, **progressive component**. Given the current size of Switzerland's big banks, the proposed calibration implies an additional capital requirement of 6%, held in the form of CoCos. As foreseen in the concept, this progressive component is compatible with FSB proposals. The FSB also envisages stricter capital regulations commensurate with systemic importance.[62]

Overall, Basel III prescribes common equity of 7%, compared with 10% proposed by the Commission of Experts. Under Basel III, banks have to hold total capital of 10.5%, compared with a total of 19% (common equity and CoCos) set by the Commission of Experts (cf. Table 3).

---

[59] FSB interim report to the G20, 18 June 2010, p. 1.

[60] ibidem, p. 1.

[61] ibidem, p. 5.

[62] FSB, "Reducing the moral hazard posed by systemically important financial institutions", June 2010, p. 4-5.

	International standard (Basel III)[63]	**Commission of Experts' calibration**
	Valid from 2013, with transition period to the end of 2018	
Total requirements:	10.5% total capital, of which at least 7% common equity	19% total capital, of which at least 10% common equity

Table 3: Overview of total capital requirements

Table 4 below summarises the various regulations and also compares them with previous regulations. When comparing the existing regulations with the new ones, it should be noted that the two sets of requirements are based on different definitions of RWA and eligible capital (common equity, Tier 1 and Tier 2).

[63] The total requirements stipulated under Basel III do not yet include a surcharge for systemically important banks. This is still under discussion at international level.

	Previous requirements (definition of RWA and capital categories as per Basel II)		New requirements (definition of RWA and capital categories as per Basel III)	
	International standard (Basel II)	**Swiss regime for big banks** (Orders of autumn 2008)	**International standard (Basel III)**	**Commission of Experts' calibration**
		Valid as of 2013[64]	**Valid as of 2013, with transition period up to end of 2018**	
I. Minimum requirement	8% total capital, of which at least: 2% common equity 4% Tier 1	same as Basel II	8% total capital, of which at least: 4.5% common equity 6% Tier 1	same as Basel III, esp. 4.5% common equity[65]
II. Buffer	-	8% total capital, of which at least: 2% common equity 4% Tier 1	2.5% common equity	8.5% of which: min. 5.5% common equity max. 3% CoCos trigger at 7% common equity
III. Progressive component	-	-	*Surcharge for systemically important banks not yet defined*	6% CoCos (for current size and market share of big banks)[66] trigger at 5% common equity
		Total:	10.5% total capital of which min. 7% common equity	19% total capital of which min. 10% common equity

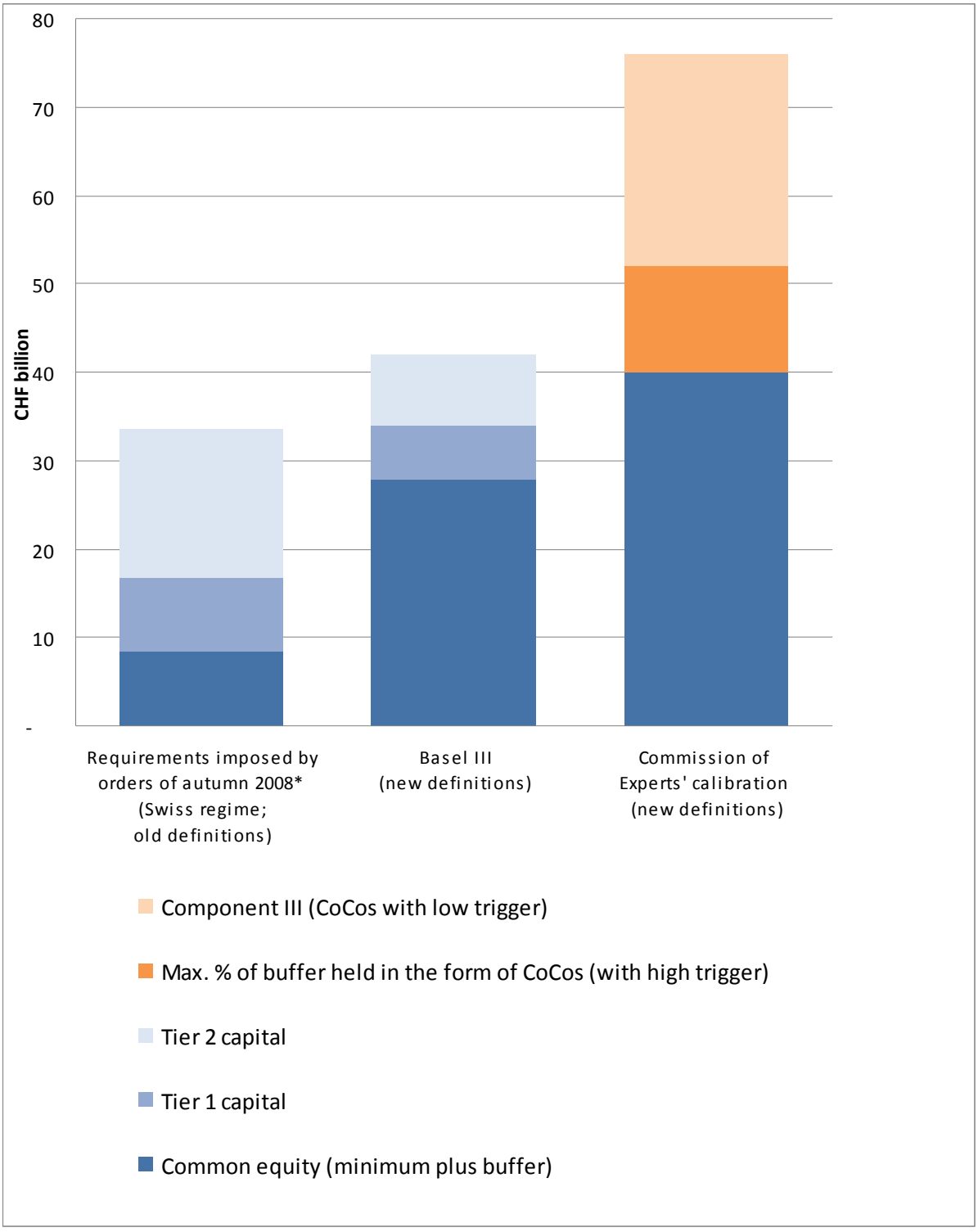
Table 4: Comparison of capital requirements

[64] The current status quo is shown. Banks are mainly required to meet their capital requirements with Tier 1 capital. Ultimately, i.e. after the transition period ends in December 2020, half the Tier 1 minimum capital and the buffer would still have to be held in common equity under the old definition. Hybrid Tier 2 instruments would also be theoretically eligible, as a minority holding. However, these are not very common in the banking system and they are therefore of negligible importance.

[65] In addition, the Basel floors for total capital (8%) and Tier 1 (6%) must be satisfied. Here, CoCos in component II and component III are eligible as long as they comply with the relevant criteria of the Basel Committee. All CoCos (in the buffer and in the progressive component) must at least meet the criteria for Tier 2 capital at all times.

[66] As illustrated in 3.3, the size of the progressive component depends on the specific bank's degree of systemic importance. The 6% quoted in the table is an average value that applies for the current status quo of Switzerland's two big banks.

The chart below shows the capital requirements of the different regimes in absolute figures. The data for Basel III and for the calibration of the Commission of Experts are based on an assumed RWA of CHF 400 billion per bank (including credit valuation adjustment, before banks' adjustment measures).



* The orders of autumn 2008 come into effect in 2013. These orders are designed to improve the quality of capital progressively until 2021.

Figure 4: Overview of capital requirements (in CHF billion)

The situation can be summarised as follows:

- Under the proposals of the Commission of Experts, banks must hold more and better quality capital compared with the existing requirements first imposed in the orders of autumn 2008. On the one hand, banks must hold more common equity, which is the highest quality of capital. On the other hand, common equity requirements must meet Basel III standards, which are more rigorous than those imposed by the orders of autumn 2008. Because common equity as defined by Basel III is more loss-absorbing than other types of capital, the critical buffer is improved and the stability of systemically important banks increased.

- The long-term financing of the banks amounts to approximately CHF 200 billion. Long-term debt capital that cannot be allocated to equity capital can be substituted by common equity or CoCos over the course of the transition periods

- Almost half the new requirements for total capital can be met with convertible capital. For banks, convertible capital has the advantage from a tax perspective of receiving preferential treatment as debt capital, since the interest payment can be deducted from taxable profits. This makes convertible capital more attractive than common equity as far as banks are concerned. If the convertible capital is more expensive than other debt capital because investors perceive a higher risk, such an increase in costs would be desirable. Thus the existing risk costs, which are borne by the taxpayer as a result of the implicit state guarantee, would be redistributed from the general public to the banks in accordance with the originator principle.

- The successful launch of CoCos could be effectively supported by a well-functioning and efficient Swiss bond market. However, this does not exist at the moment. Because bonds issued in Switzerland are subject to an issuing commission and withholding tax has to be deducted on any interest payments, no market really exists at present due to the additional tax burden. For this reason, Swiss companies generally issue their bonds abroad, since there they do not attract any withholding tax or issuing commission as long as the proceeds from the bond are not transferred back to Switzerland directly or indirectly. Bonds can be regulated by Swiss law and are subject to Swiss jurisdiction only if they are actually issued in Switzerland. Under current law, they are therefore subject to withholding tax and issuing commission. An improvement in the tax regime, especially the abolition of issuing tax on debt capital and above all the replacement of withholding tax by a paying agent tax, is therefore a crucial step towards the successful development of the Swiss bond market. Systematic exemption from withholding tax on interest paid on CoCos is another possible option.

4.3.3 Comparison of other measures

The other measures included in the proposed policy mix also fit in with the international framework. The measures proposed by the FSB in the area of organisation also include interventions in the legal and organisational structure of banks, as well as the structural separation of systemically important functions.[67] In contrast to other countries, the Commission of Experts does not propose the creation of a stability fund or "resolution fund" intended to facilitate the orderly resolution of distressed financial institutions. The third capital component contained in the capital concept proposed by the Commission of Experts can be seen as a resolution fund to be set up by the institution itself, which will make a significant contribution towards orderly resolution.

[67] FSB, "Reducing the moral hazard posed by systemically important financial institutions", June 2010, p. 5.

The Basel Committee has drawn up quantitative minimum standards for liquidity. Although these do not target the special features of systemically important banks – unlike the new regulations in Switzerland – they are compatible in terms of methodology (cf. 3.4).

In the past, the Basel Committee did not issue any rules on risk diversification, and Swiss regulations are based mainly on the corresponding EU regulations. These have recently been changed. The purpose of the amendment to the Capital Adequacy Ordinance (CAO) mentioned in the report is to bring Swiss regulations into line with the new EU rules.

A1 Members of the Commission of Experts

Representatives of the authorities:

Peter Siegenthaler	Chairman of the Commission of Experts Up to 30 June 2010, Director, Federal Finance Administration FFA Since 1 July 2010, Chairman, Association of Swiss Cantonal Banks
Thomas Jordan	Vice-Chairman of the Commission of Experts Vice-Chairman of the Governing Board, Swiss National Bank
Patrick Raaflaub	Vice-Chairman of the Commission of Experts Director, Swiss Financial Market Supervisory Authority FINMA
Aymo Brunetti	Head of the Economic Policy Directorate, State Secretariat for Economic Affairs SECO
Rafael Corazza	Director, Secretariat of the Competition Commission

Representatives of academia:

Hans Caspar von der Crone	Professor of Private and Commercial Law, University of Zurich
Ernst Baltensperger	Advisor to the Gerzensee Study Centre and Professor Emeritus, University of Bern

Representatives of the private sector:

Raymund Breu	Former Chief Financial Officer, Novartis International AG Member of the Board of Directors of Swiss Re
Gerold Bührer	Chairman of Economiesuisse Vice-Chairman of the Board of Directors of Swiss Life
Hermann Geiger	Member of the Executive Board, Group Legal, Swiss Re
Ulrich Körner	Member of the Group Executive Board, Group Chief Operating Officer, CEO Corporate Center, UBS AG
Urs Rohner	Vice-Chairman of the Board of Directors, Credit Suisse Group AG
Rolf Soiron	Board Member of Economiesuisse and Chairman of the Board of Directors, Holcim Ltd
Dieter Wemmer	Group Chief Financial Officer, Member of the Group Executive Committee, Zurich Financial Services

A2 Draft partial revision of the Banking Act

Section 5: Systemically important banks

Art. 7 Principle and purpose

[1] Systemically important banks are subject to the supplementary supervisory requirements.

[2] The objective of these requirements is, in concert with the generally applicable statutory banking regulations, to reduce further the risks to the stability of the Swiss financial system, to ensure the continuation of economically vital functions and to avoid government bailout measures.

Art. 8 Scope of application

[1] Systemically important banks are banks, financial groups and bank-dominated financial conglomerates whose failure would do considerable harm to the Swiss economy and the Swiss financial system.

[2] The systemic importance of a bank depends on its size, its interconnectedness with the financial system and the economy, and the short-term substitutability of its services. It is evaluated based on the following criteria in particular:

a. Market share of domestic banking business, in particular in the area of deposits and loans as well as in payment transactions;

b. The amount of protected deposits in accordance with Article 37h that exceed the system limit;

c. The relationship between the bank's balance sheet total and Switzerland's annual gross domestic product;

d. The risk profile of a bank, which is determined by its business model, its balance sheet structure, the quality of its assets, its liquidity and leverage ratio.

Art. 9 Supplementary requirements

[1] The supplementary requirements must be determined in such a way that they materially reduce the risks due to systemically important banks for the stability of the financial system and for the Swiss economy.

[2] The scope and the structure of the measures are determined by the level of systemic importance of the banks. The measures must be commensurate and take into account the impact on the banks concerned and their competitors, as well as factor in internationally recognised standards.

[3] The supplementary requirements cover in particular:

a. Capital, liquidity and risk diversification;

b. Organisation, in particular structure, management and controls as well as internal liquidity and capital flows, insofar as these requirements are essential for the continuation of systemically important functions in the event of the bank's insolvency.

[4] If the bank fails to provide sufficient proof that the maintenance of systemically important functions can be ensured in the event of insolvency, FINMA shall impose the requisite measures in accordance with para. 3 b.

Art. 10 Responsibilities

[1] The Federal Council shall set out in an ordinance the parameters for the supplementary requirements in accordance with Article 9. This will be carried out in consultation with the Swiss National Bank and FINMA.

[2] The Swiss National Bank shall determine in an order which banks are systemically important and which functions are systemically important for such banks.

[3] FINMA shall determine the supplementary requirements that the systemically important bank must fulfil in an order within the framework of the Federal Council's ordinance.

[4] The Swiss National Bank and FINMA shall consult with each other regarding this section before orders are issued and can mutually make relevant applications.

Changes to the Federal Act on the Swiss National Bank (National Bank Act)

Art. 52 Orders

[1] The Swiss National Bank shall render its decisions in accordance with Articles 15, 18, 20, 22 and 23 of this Act and Article 10 of the Banking Act in the form of an order.

Section 6: Additional corporate capital

Art. 11 Reserve capital

[1] The General Meeting of a bank with the legal form of a corporation can empower the Board of Directors, by means of an amendment to the articles of incorporation, to increase the share or participation capital.

[2] The General Meeting can limit the amount and duration of the reserve capital.

[3] The articles of incorporation shall indicate:

1. Any limitation regarding the duration or nominal amount of the reserve capital;

2. The amount of the deposits to be made, or the authorisation of the Board of Directors to determine this;

3. The asset class or participation certificates including any preferential rights, or the authorisation of the Board of Directors to determine this;

4. The contents and value of any special rights and the names of the beneficiaries, or the authorisation of the Board of Directors to determine this;

5. Any limitation regarding the transferability of new registered shares, or the authorisation of the Board of Directors to determine this.

[4] Within the scope of the authorisation, the Board of Directors can carry out an increase in the share capital. It issues the necessary provisions insofar as they are not already contained in the resolution of the General Meeting. It therefore determines:

1. The nominal value of the increase;

2. The number and the nominal value of the shares;

3. The issue amount;

4. The type of investments;

5. The acquisitions in kind;

6. When the calculation of the dividend begins.

[5] The Board of Directors can exclude or limit the shareholders' subscription rights for good cause. The new shares or participation certificates must be issued at market conditions in this case. A discount is permissible if this is in the interests of the company and will result in the quick and complete placement of the shares.

[6] Article 704 and Article 651a para. 1 of the Swiss Code of Obligations do not apply. Moreover, the provisions governing the authorised share capital in accordance with Articles 651 – 652h of the Swiss Code of Obligations apply mutatis mutandis.

Art. 12 Convertible capital

[1] The General Meeting of a bank with the legal form of a corporation can introduce convertible capital. Under convertible capital, convertible bonds or similar capital instruments can be converted into shares or participation certificates upon the occurrence of a trigger event as determined at the time of issue.

[2] The General Meeting can limit the amount of convertible capital.

[3] The articles of incorporation shall indicate:

1. Any limitation regarding the nominal amount of the convertible capital;

2. The asset class or participation certificates including any preferential rights, or the authorisation of the Board of Directors to determine this;

3. The limitation regarding the transferability of new registered shares, or the authorisation of the Board of Directors to determine this;

4. The calculation basis for the issue amount, or the authorisation of the Board of Directors to determine this;

[4] Within the scope of its authorisation, the Board of Directors can issue convertible bonds or similar capital instruments. It issues the necessary provisions insofar as they are not already contained in the resolution of the General Meeting. It therefore determines:

1. The number and nominal value of the shares or participation certificates;

2. Any breakdown into different bonds and different tranches (convertible capital programme);

3. The trigger, or in the event of breakdown into tranches, the triggers;

4. The issue amount or the rules according to which this is determined;

5. The conversion ratio or the rules according to which this is determined.

[5] The Board of Directors can exclude or limit the former shareholders' pre-emptive subscription rights for good cause. The new convertible bonds must be issued at market conditions in this case. A discount is permissible if this is in the interests of the company and will result in the quick and complete placement of the shares.

[6] Article 704 of the Swiss Code of Obligations does not apply. Moreover, the provisions governing conditional share capital in accordance with Articles 653 – 653i of the Swiss Code of Obligations apply mutatis mutandis.

Art. 13 General provisions

[1] The additional company capital may be used only to strengthen the capital base in conjunction with the capital requirements.

[2] In the case of financial groups or financial conglomerates, the group parent company, which itself is not a bank, can make use of additional company capital.

Changes to the Swiss Code of Obligations

Art. 651 para. 5 (new):

The provisions of the Banking Act governing reserve capital remain reserved.

Art. 653 para. 3 (new):

The provisions of the Banking Act governing convertible capital remain reserved.

A3 Comprehensive commentary on the draft law

A3.1 Overview and principles of the new provisions

The Commission of Experts for limiting the economic risks posed by large companies identified core measures to reduce the TBTF problem. The draft revision of Sections 5 and 6 of the Banking Act (Appendix A2) contains the legal principles required for the implementation of these measures.

Two strategic thrusts are followed in the new provisions. First of all, systemically important banks should be subject to supplementary requirements under supervisory law (Section 5). These primarily concern the areas of capital, liquidity and risk diversification, as well as the organisation and legal structure. Secondly, additional instruments for the creation of equity capital and equity-replacing investments should be made available in the form of reserve capital and convertible capital (Section 6).

The legal proposal is the result of weighing up the interests of the general public, the private sector and the banks affected. Particular attention should be paid to the impact of the measures on the constitutionally guaranteed rights of the banks. The proposed revision therefore stresses the principles of proportionality and subsidiarity. It upholds the rights of those affected, but at the same time gives state bodies the requisite room for manoeuvre to introduce effective measures.

A3.1.1 Section 5: Systemically important banks

The existing statutory provisions only admit supplementary requirements for systemically important banks in a limited form. The new Section 5 of the Banking Act creates a solid legal foundation for the measures proposed by the Commission of Experts. In accordance with the areas for key measures defined in the report, i.e. capital, liquidity and risk diversification, on the one hand, and organisation on the other hand, the proposed revision also focuses on these areas.

More stringent requirements in the area of capital, liquidity and risk diversification will make systemically important banks more secure and reduce the risk of bankruptcy. Such measures are of a preventive nature. Organisational terms of reference on the other hand, should ensure the continuation of systemically important functions in the event of failure. These measures are primarily of a curative nature: whilst they ensure that the systemically important functions are able to continue, they also allow the bankruptcy of the rest of the company. They protect the state from having to save the whole company, merely in order to protect the systemically important functions. Thus the bankruptcy of a systemically important bank becomes a real possibility. This circumvents the distorting effect created by any actual state guarantee. Beyond the curative function, therefore, these organisational measures are also preventive.

The proposed statutory provisions include policy decisions and guidelines. They need to be ratified by a Federal Council ordinance. This delegation of legislative powers is required to ensure a quick and flexible adjustment to the changed situation – including developments in the international environment. The regulations governing measures in individual cases will be rendered in the form of an ordinance from FINMA, whereby the Swiss National Bank must be consulted and can submit proposals.

The new provisions give the relevant authorities the necessary room for manoeuvre, but set clear boundaries: organisational directives are permitted only in compliance with a strict principle of subsidiarity. Measures beyond the areas set out in Article 9 para. 3 of the Draft Banking Act, i.e. capital, liquidity and risk diversification (let. a), and organisation (let. b), are permitted only in exceptional cases. Serious encroachment on constitutional rights, namely measures whose efficacy is not established and that do not have a direct risk-reducing effect, as well as actual prohibition measures are not permitted based on these provisions.

A3.1.2 Section 6: Additional corporate capital

In Section 6, which deals with additional corporate capital, new instruments are made available to the banks under private law whereby they can meet the capital requirements, i.e. reserve capital and convertible capital. This means that security and flexibility are increased in future crisis situations, insofar as reserve capital and convertible capital serve the same purpose. However, they are fundamentally different in their starting points.

Reserve capital (Article 11 of the Draft Banking Act) ensures that the bank can issue new shares quickly and flexibly and can raise new capital – particularly in a financially difficult situation – in order to ensure compliance with the regulatory capital requirements. Convertible capital (Article 12 of the Draft Banking Act), in contrast, offers banks a simple, cost-effective opportunity to raise potential equity-replacing debt capital in advance, in particular through contingent convertible bonds (CoCo bonds). If such debt capital were to become equity capital in a crisis situation, it would offer an additional risk buffer, whereby the advantages of financing using debt capital remain.

The use of private law instruments ensures that the market can carry out its functions. Listed contingent convertible bonds provide an ongoing commentary on the relevant financial institution by the market. This signal contributes to the early identification of crises.

As special requirements for banks, Articles 11-13 of the Draft Banking Act primarily include the necessary amendments to the law on companies limited by shares. The amount of capital continues to be determined by the Capital Adequacy Ordinance of the Federal Council, and is governed by the supplementary regulations for systemically important banks in Section 5 of the Banking Act.

The draft aims to maintain companies' organisational freedom regarding the issue of contingent convertible bonds as great as possible and not to pre-empt companies' business decisions, but at the same time it aims to enable the state to indirectly determine the crucial points from a regulatory perspective concerning the prerequisites for the acceptability of contingent convertible bonds vis-à-vis compliance with the capital requirements.

A3.2 Notes to the individual articles

A3.2.1 Section 5: Systemically important banks

Supplementary requirements under supervisory law for systemically important banks (Article 7 para. 1 of the Draft Banking Act)

I. Need for an explicit legal framework for supplementary requirements for systemically important banks

The Banking Act currently does not contain any supplementary requirements for systemically important banks. Despite this, the big banks have already been subject to their own supervisory regime, partly due to their systemic importance (cf. FINMA Circular 2008/9). Moreover, in order to pre-empt any systemic risks, some supplementary requirements for internationally active major institutions have been permitted, based on the applicable law (cf. Article 4 para. 3 of the Banking Act).

However, an explicit legal framework makes sense and it is also necessary for at least some of the proposed measures. The measures proposed by the Commission of Experts, in particular the organisational measures, represent in part an invasive encroachment on economic freedom and guarantee of ownership, which in accordance with Article 36 of the Federal Constitution need to be enshrined in a law. Its permissibility based on the existing, very general provisions in the Banking Act would be questionable.

The proposed statutory article would create clarity in this regard and place the planned measures on a solid legal foundation. Clear framework provisions and clear legal stipulations for the new provisions would also provide legal certainty. In addition, these new provisions not only empower but create a binding legislative mandate for the Federal Council to render supplementary regulations for systemically important banks, which will materially reduce the risk inherent in these banks (cf. Article 9 para. 1 of the Draft Banking Act).

II. Principle of equal treatment and the admissibility of differentiation (Articles 27 and 8 of the Federal Constitution)

The concept of supplementary requirements for individual economic players raises the question of the admissibility of differentiation and unequal treatment. Article 8 of the Federal Constitution, as a general injunction for equal treatment and – because distortions of competition could be linked with differentiation – economic freedom (Article 27 of the Federal Constitution), requires the equal treatment of direct competitors. In principle, the state is forbidden to undertake measures that contravene the principle of economic freedom and distort competition (Article 94 of the Federal Constitution). However, the principle of equal treatment is not absolute. There may be objective reasons why differentiation and unequal treatment are justified, whereby a weighing up of interests must be undertaken.

The (uncontrolled) collapse of a systemically important financial institution has by definition unsustainable implications for the economy as a whole. Moreover, the distinction between systemically important and non-systemically important financial institutions is part of the constitution itself, as the essence of Article 98 of the Federal Constitution is a mandate to the legislature for system security. Different regulations for systemically important and non-systemically important financial institutions are therefore admissible in principle but only insofar as they are contingent on systemic importance and therefore objectively justified. Unequal treatment may only go so far as is absolutely necessary in order to protect public interests and must never lose sight of the preservation of fundamental rights.

This applies to supplementary requirements for systemically important banks in the areas of organisation and structure, capital, liquidity and risk diversification, as well as other areas. If systemically important banks are subject to supplementary regulations, it must be ensured that the effect on competition is kept to the minimum possible. The convertible capital therefore helps to keep the increased capital requirements cost neutral to a large degree. Moreover, the amount of the capital increases compared with the other banks must be dependent on the systemic importance, the organisation and the risks entered into by the bank. In the case of supplementary organisational requirements, primarily functional requirements shall be set and direct statutory directives will be bound by a strict principle of subsidiarity. Therefore, equal treatment will be guaranteed insofar as possible and distortions of competition minimised.

Article governing purpose (Article 7 para. 2 of the Draft Banking Act)

Article 7 para. 2 of the Draft Banking Act is designed as an article governing purpose. It contains not only the rationale for the issue of the supplementary requirements but also serves a normative function at the same time. It acts as an aid to interpretation in questions regarding which measures are admissible and limits the legislative powers delegated to the regulator, i.e. it provides said regulator with content guidelines.

The new provisions of Section 5 (and/or the supplementary requirements based on them) have three aims:

1. They should reduce the risks to the Swiss financial system created by the systemic importance of individual financial institutions.

2. They should guarantee the continuation of economically important (systemically important) functions in times of crisis, financial restructuring or bankruptcy.

3. They should avoid state aid, thereby removing the need for any actual state guarantee.

Definition of systemic importance and scope of application (Article 8 of the Draft Banking Act)

Article 8 of the Draft Banking Act includes the definition of systemic importance and also determines the scope of application of the new provisions in the Section 5.

Banks are systemically important if "their collapse would materially damage the Swiss economy and the Swiss financial system" (Article 8 para. 1 of the Draft Banking Act). The question as to whether a bank is systemically important is therefore to be answered from the perspective of an individual country. The systemically important functions for the Swiss economy and the potential consequences of the collapse of such functions for the Swiss economy are of material importance here. The question of whether the bank is also – or possibly only – systemically important abroad is not material for the Swiss regulator, but it will be for the foreign regulator.

A bank is systemically important if it performs services that are essential for the economy that cannot be provided by other companies within a timeframe that is acceptable for the economy as a whole in the event of insolvency. Article 8 para. 2 of the Draft Banking Act is in line with this description and refers to the internationally recognised criteria of size, interconnectedness and insufficient short-term substitutability. Letters a to d of Article 8 para. 2 of the Draft Banking Act include a non-exhaustive, more specific list of help criteria that are to be used when assessing the systemic importance of a bank. Letter c emphasises the particularly important aspect of size for Switzerland and the associated too TBTBR problem by highlighting the relationship between the size of the balance sheet and the gross domestic

product. The risk profile (let. d) is a decisive factor in the damage probability and damage potential. Article 8 para. 2 letters a and b of the Draft Banking Act identify, in a non-exhaustive list, the functions of banks that as a rule cannot be substituted in the short term and could therefore contribute materially to the systemic importance of the whole institution.

The criteria in accordance with Article 8 para. 2 letters a to d of the Draft Banking Act must not be fulfilled cumulatively. A bank can already be deemed to be systemically important if an analysis indicates material systemic risk in a few individual criteria. The systemic importance of a bank presupposes in every case that it has at least one systemically important function. As a rule, a specific size or interconnectedness will supplement the systemically important function. As a result, smaller banks that have a single systemically important function are not included in the new provisions, unless the whole institution is deemed to be systemically important.

The criteria in accordance with Article 10 para. 2 of the Draft Banking Act deliberately allow the Swiss National Bank a considerable amount of discretion when deciding on systemic importance. Based on the results of the Commission of Experts, it is to be assumed that only Credit Suisse and UBS are systemically important amongst Swiss banks at the present time.

Supplementary requirements (Article 9 of the Draft Banking Act)

Article 9 para. 1 of the Draft Banking Act sets the parameters for the supplementary requirements under supervisory law for systemically important banks. This is in conjunction with the article of purpose, which limits the permissible targets. Paragraph 2 defines the general administrative legal principle of proportionality. Paragraph 3 indicates that the supplementary requirements relate primarily to the key measures as defined by the Commission of Experts, even if the non-exhaustive list allows space in principle for requirements in further areas.

I. Concept

Article 9 of the Draft Banking Act is a basic provision. The supplementary requirements must be specified further. Article 9 of the Draft Banking Act is not suitable as the immediate basis for an order. The provision is formulated too loosely for that. The content of the requirements would be neither sufficiently clear for those affected nor would it be possible to legally examine the requirements determined on a case-by-case basis. Article 10 para. 1 of the Draft Banking Act therefore does not contain a legislative delegation to the Federal Council. The Federal Council should determine the parameters and thus set a concrete framework. However, by listing the categories for the measures (capital, liquidity, risk diversification and organisation), Article 9 para. 3 of the Draft Banking Act does provide the strategic direction for the new supplementary requirements for systemically important banks. Yet the Federal Council could also envision further categories for requirements as an exception. Insofar as the Federal Council ordinance (or Federal Council ordinances) does not immediately establish the rights and obligations of the systemically important banks, FINMA shall render the specific supplementary requirements that have to be met by a systemically important bank in the form of an order.

This two or three-step system – law, ordinance and order – with the delegation of legislative powers to the regulator and the provision for discretionary leeway on the part of the legislating authority guarantees the flexibility of the regulation, the possibility of amendment in the case of altered circumstances, international coordination and efficacy and suitability in individual cases. However, the legislator retains the right to make the fundamental decisions. The law already sets clear parameters and boundaries and thereby defines the supplementary requirements according to this principle.

II. General framework (Article 9 para. 1 of the Draft Banking Act)

As well as the general comment on the objective of the measures (see also the article governing purpose), Article 9 para. 1 of the Draft Banking Act obliges the Federal Council to materially reduce risks. The legislative mandate in accordance with Article 10 para. 1 of the Draft Banking Act is therefore specified in this respect. The material risk reduction must not, however, be effected by one measure alone. The impact of several measures in tandem is far more decisive.

III. Proportionality and further criteria (Article 9 para. 2 of the Draft Banking Act)

The principle of proportionality (cf. Article 5 para. 2 of the Federal Constitution) is particularly important in determining the supplementary requirements for systemically important banks. Such supplementary requirements can impose material limitations on the economic freedom and ownership guarantee of the banks affected and they always result in unequal treatment. Article 9 para. 2 of the Draft Banking Act therefore expressly states that the supplementary requirements must be in line with the principle of proportionality. The note that the scope and structure of the measures are determined by the level of systemic importance of the banks and that the impact of the measures on the banks affected and on competition must be taken into account defines the principles of proportionality and equal treatment more precisely.

Finally, the measures imposed by FINMA must stand up to examination vis-à-vis the principle of proportionality. The key areas for measures defined by the Commission of Experts and named in the legislation are themselves the result of a proportionality test. Measures in these areas are therefore fundamentally admissible, whereas measures that the Commission of Experts decided not to pursue tend to infringe the principle of proportionality and should therefore be deemed inadmissible.

However, due to the sometimes far-reaching impact on banks and also on competition, the principle of proportionality must be subject to stringent requirements. The supplementary requirements must be proportional not just individually but in their entirety. The regulator and legislating authority must be able to explain the objective of the measure and its efficacy, namely the cause/effect correlation and must reject any measures where this correlation cannot be proved. The more direct the cause/effect correlation is, the more likely it is that the measure will be admissible.

Aside from the proof of efficacy, another material aspect of the proportionality test is a cost/benefit analysis of the specific requirements. As far as costs are concerned and insofar as they do not arise merely as a result of the loss of a de-facto state guarantee, it is important that they are not simply proportional but that they are also appropriate, as this will eliminate any potential distortion of competition. But even further-reaching costs, such as those that arise as a result of organisational measures, do not necessarily preclude a measure. If they are proportionate to the risk reduction and/or benefit, they can be justified as being in the public interest vis-à-vis the stability of the financial centre.

The Commission of Experts harmonised the individual core measures within the framework of a package of measures that takes into account these principles and requirements.

IV. International standards (Article 9 para. 2 of the Draft Banking Act)

Article 9 para. 2 of the Draft Banking Act states that the measures must take account of international standards. No deviation from international regulations should be made without good reason. This particularly concerns international codes governing the methodology and systems for measuring risk and risk controls or accounting. International compatibility and comparability are ensured thereby.

Internationally recognised minimum standards must also be observed. The reference to international standards does not, however, mean that the measures in Switzerland cannot substantially exceed the minimum requirements of other countries or international committees – as has always been possible in the past. For reasons of economic or political feasibility, international standards fall way below the ideal in many cases. Thus a deviation upwards is often justified. During the financial crisis in particular, it was clear that more stringent requirements could provide a financial centre with considerable comparative advantages.

The anticipated measures in Switzerland may, however, take a different course than the international initiatives. Regarding the question of whether and to what degree deviations from the international regulations and minimum standards are permissible, it must always be remembered that the stability of the system is of enormous importance in Switzerland, as the risks associated with systemically important financial institutions are materially greater than in many other foreign countries due to the relationship between the size of the balance sheet of the systemically important banks and the gross domestic product.

V. Capital, liquidity and risk diversification (Article 9 para. 3 let. a of the Draft Banking Act)

Article 4 para. 3 of the Banking Act already empowers FINMA to enforce tighter measures in certain cases with regard to capital and liquidity in relation to the minimum requirements, and the SFBC/FINMA have agreed capital target figures with the big banks which in part are substantially higher than the legal minimum required. However, there is now a binding mandate for more stringent requirements for all systemically important banks.

Due to the existing stipulations, the basic features of the supplementary capital and liquidity requirements as well as the risk diversification regulations are relatively clearly outlined. The determination of the system will be left to the Federal Council (cf. Article 4 para. 2 of the Banking Act and Article 10 para. 1 of the Draft Banking Act). FINMA in its role as specialist authority is responsible for determining the exact level of the supplementary requirements for systemically important banks. When actually setting this level, the bank's risk profile and organisational structure, as well as the likelihood of state support measures being needed are also to be taken into account (Article 10 para. 3 of the Draft Banking Act). This will ensure that the capital supplementary requirements are optimally tailored to the individual bank while at the same time maintaining a level playing field for banks.

Regarding the capital requirements for systemically important banks, the Commission of Experts proposes a system comprised of three components. These components reflect the different objectives pursued with capital requirements. The minimum requirement (component I) is necessary to maintain management. The buffer (component II) enables banks to absorb losses during a crisis without there being an immediate risk of business activity being discontinued. The progressive component for systemically important banks (component III) takes into account the serious repercussions of a systemically important bank's insolvency in Switzerland and abroad. At the same time, the additional capital in the case of systemically important banks should create the leeway during a crisis to ensure that systemically important functions are maintained in the event of insolvency. By arranging the capital requirements in components, by calibrating the individual components according to their objective, and by taking a bank's systemic importance into account when assessing component III, it should be ensured that the necessary capital is available without unnecessarily restricting management in the process. Allowance is thereby made in the best way possible for the principles of equal treatment and proportionality.

VI. Organisational measures (Article 9 para. 3 let. b of the Draft Banking Act)

In principle, bankruptcy is a necessary and appropriate sanction for a company that fails in the market. However, the bankruptcy and uncontrolled collapse of a systemically important financial institution can cause a disproportionate amount of damage. This damage arises in particular due to the collapse of systemically important functions that cannot be substituted in the short term by other companies. Organisational measures take over at this point, which should facilitate the controlled resolution of the systemically important bank. However, it is crucial that the continuation of systemically important functions is assured. Organisational measures protect the state from having to save the whole company merely in order to guarantee the systemically important functions. This also circumvents the distorting effect created by any de-facto state guarantee. This is the minimum objective that it is essential to achieve from Switzerland's viewpoint. Even if the maintenance of systemically important functions is ensured in the case of insolvency, the insolvency of a systemically important bank has serious repercussions for the affected economies at home and abroad. These negative repercussions can also be reduced by the bank taking organisational measures. The bank can boost its resolvability with organisational precautionary measures.

In the case of organisational and structural measures, this often entails substantial interference in the institution's economic freedom and guarantee of ownership, which could also severely inhibit the innovation role of competition. With the prescription of organisational requirements, the state makes operational decisions and in the end it must accept responsibility for this. Organisational measures therefore require a particular justification and are permitted only in exceptional cases. This draft law takes this into consideration in several respects. The minimum objective that it is essential to achieve from a national perspective, i.e. ensuring systemically important functions are maintained, is implemented directly via state measures (cf. Article 9 para. 3 let. b and para. 4 of the Draft Banking Act). However, the ordering of such organisational measures is dependent on consistent compliance with a strict principle of subsidiarity. The state may not directly implement further-reaching organisational precautionary measures for systemically important banks to improve their general resolvability and reduce the general effects of a bankruptcy. It can only do so indirectly through incentives (e.g. capital rebate in the case of an organisation that would facilitate the bank's resolution in the event of insolvency, cf. 3.6.3 in the Commission of Experts' report).

a) Subsidiarity principle in accordance with Article 9 para. 3 let. b and para. 4 of the Draft Banking Act

Supplementary regulations for systemically important banks in relation to organisation are permissible "insofar as these regulations are necessary for the continued operations of systemically important functions in the event of the bank's insolvency". They presuppose that the bank has not succeeded in proving that the continued operation of systemically important functions in the event of insolvency is guaranteed.

It is primarily up to each systemically important bank to organise itself in such a way that the continued operation of systemically important functions is guaranteed in the event of insolvency. In a subsidiary capacity, i.e. if the bank cannot prove to FINMA its ability to maintain these functions, FINMA will prescribe the requisite organisational measures.

The subsidiarity principle, as enshrined in Article 9 para. 3 let. b and para. 4 of the Draft Banking Act, comprises both a material and a formal component. The material component is based on the fact that the law primarily prescribes functional requirements regarding organisation and that state measures may only be prescribed as subsidiary measures to the internal measures of the affected banks, and only if and when the banks' own measures are not effective. In a formal sense, the decisive point is that the procedural law of those affected should be as well developed as possible, otherwise the bank must provide proof that the measures it has taken are effective.

The subsidiarity principle in its current form is based on the concept that the level of intervention with regard to a particular regulation can be considerably reduced if those affected are given functional requirements rather than requirements concerning contents, i.e. only the target but not the way of achieving it is prescribed. The authority may prescribe organisational measures only if the given target is not achieved. The procedure must be structured in such a way that there is a constant exchange between authority and the affected bank, so that collaboration is maximised. In compliance with these principles, even far-reaching organisational regulations observe fundamental rights, and are proportional and permissible.

The subsidiarity principle in accordance with Article 9 para. 3 let. b and para. 4 of the Draft Banking Act therefore includes the following basic structure:

- The SNB renders its decision in the form of an order on the systemic importance of individual banks. At the same time, it identifies the systemically important functions whose continuation the bank must guarantee in the event of insolvency.

- FINMA gives the bank affected a deadline by which it must produce proof that the systemically important functions can be continued in the case of insolvency. A deadline of between six months and one year should be appropriate. The burden of proof for the guaranteed continuation of the systemically important functions rests with the bank, as the mere fact that a function is systemically important would be sufficient to justify measures.

- Once the deadline has expired, FINMA decides whether the bank has produced the relevant proof. If the decision is negative, FINMA will prescribe the necessary organisational measures.

- The orders rendered by both the SNB and FINMA may be subject to judicial review.

In accordance with Article 10 para. 1 of the Draft Banking Act, the Federal Council must determine the parameters for the supplementary requirements in accordance with Article 9 of the Draft Banking Act in an ordinance. With regard to organisational requirements, this must include the following regulations:

- During the identification of systemically important functions by the SNB, the (general/abstract) guidelines must be prescribed. Article 8 of the Draft Banking Act primarily answers the question regarding the systemic importance of a whole institution and therefore is insufficient as a basis, but it does at least provide specific pointers (domestic banking business, in particular deposit and credit business, payment transactions, secured deposits that exceed the system limits). The ordinance must address these issues. Based on this ordinance, the SNB shall render a decision on the systemically important functions of a systemically important bank.

- The ordinance must then define more precisely the functional requirements for ensuring the continuation of the systemically important functions and also determine criteria for deciding whether the bank has succeeded in providing proof of said guaranteed continuation in the event of restructuring measures and bankruptcy. The ordinance shall provide the foundation for the corresponding decision by FINMA. When the ordinance is issued, it is essential that only the target is prescribed for the bank and not the ways and means – not even indirectly via tightly formulated target requirements. The bank must retain significant scope for decision-making.

- Finally, the ordinance must describe in concrete terms and in detail the measures that FINMA can prescribe in a subsidiary fashion if the bank is unable to provide the proof required (cf. d).

b) Proof of guaranteed continuation of systemically important functions

The activities of banks are inevitably linked with risk. These risks cannot always be completely eliminated through the introduction of new, supplementary measures. On the one hand, not all future developments can be foreseen and dealt with using preventive measures, and on the other, certain risk control measures would have far too deleterious an effect on the banks concerned, on competition and on the economy. In other words, it is impossible to have absolute security and something approximating absolute security comes only at disproportionate cost. A certain residual systemic risk has to be accepted: in other words, government bailout measures cannot be prevented in every case. However, in many areas risk can be substantially reduced within clear cost/time parameters. This is where the principle of proportionality is crucial. This applies mutatis mutandis to the functional requirements for the banks and to the proof that banks have to provide in accordance with Article 9 para. 4 of the Draft Banking Act as well as to any subsidiary measures prescribed by FINMA.

The systemically important banks have to prove in full their commensurate preparation at process level: a precise and continuously updated contingency plan provides a substantial contribution to risk reduction at little extra effort/cost, as the prerequisites for rapid and targeted reactions to crisis situations can already be set in place. Therefore, the banks must prove without provisos that emergency plans that guarantee the continuation of systemically important functions in a crisis situation within the time available have been drawn up.

At a contents level, the banks must be able to show that they have put in place the prerequisites for the continuation of systemically important functions through specific organisational measures that go beyond the mere planning stage. In contrast to the process level, the proportionality test plays a central role at the contents level. Here it is important to weigh up the interests of the bank against those of the general public holistically. At the bank level, the scale of the risk reduction via the measures, the cost of the measures and the risk reduction/cost ratio, i.e. the level of efficacy of the measures, are relevant. At the state level, the amount of residual systemic risk following the measures, the economic justification for the state taking on this risk and the economic ability and political preparedness of the state to bear this risk, are relevant. Naturally, the question of how much maximum residual systemic risk is still tenable is particularly important. Based on the principle of balanced financial management and the duty to compensate any excess expenses in subsequent years (Article 126 of the Federal Constitution), the upper limit should be set at 10% of the ordinary income of the Confederation.

The proof to be provided by the banks thus includes the following elements:

- The bank must be able to prove that it has implemented all the measures with a high level of efficacy. This includes, at process level, a detailed and continuously updated emergency plan, and at the contents level, all the measures that significantly reduce the residual systemic risk at limited cost.

- Furthermore, the bank has to prove that it has reduced the residual systemic risk for which it is responsible to an acceptable level for the state by introducing supplementary measures, even if this means it has to take on board considerable restrictions.

- The proof the bank has to provide concerns the future. Exhibits are primarily forecasts of the efficacy of the measures. Thus the Federal Supreme Court's jurisdiction applies here for facts that cannot be proven in the strictest sense. Proof has been provided if the bank

can show that the measure will achieve the required outcome with a high level of probability based on current knowledge.

c) Relationship between capital, liquidity and risk diversification requirements and organisational requirements

The capital requirements and organisational measures cannot be viewed in isolation. They are interrelated in many ways. They complement one another but are also mutually dependent. An overall view is always necessary when setting the organisational measures and capital requirements.

- The capital requirements should reduce the risk of bankruptcy, while the organisational measures should lessen the impact of any insolvency and particularly ensure the maintenance of systemically important functions.

- In crisis situations, more capital and more liquidity create room for manoeuvre and thus time to search for a solution or to implement solutions that have already been put in place for the systemically important functions. If a bank is at the lower end of the relevant capital and liquidity requirements for a systemically important institution, it will have to take on board greater organisational limitations than an above-average capitalised and liquidity-rich institution.

- While individual organisational requirements have to be implemented immediately to achieve their objective, for others it is sufficient if there are specific emergency plans in place and their implementation has been prepared even though they have not yet come into force. The capital and liquidity provision of the bank serve to heighten the efficacy of these organisational measures, as they ensure in the event of a crisis that there is sufficient time and capital for implementation. The focus is on the capital component III and the contingent convertible bonds issued for its fulfilment, based on the convertible capital. The capital necessary to implement the emergency plan is made available via the contingent convertible bonds, which are not converted until later on, just before the bank becomes insolvent.

- Finally, the supplementary capital requirements for systemically important banks also provide compensation for the fact that organisational measures alone cannot offer absolute security. They therefore compensate for the residual systemic risk for the state that cannot be eliminated.

d) Permissible organisational measures

The Commission of Experts examined numerous organisational measures:

- The legal and operational structure throughout the business areas

- Service company (outsourcing of services to a centrally managed company within a corporation)

- Swiss Domestic Bank (creation of a legal entity in Switzerland which deals with the systemically important business in Switzerland)

- Unbundling of relationships within the company (e.g. limitation of in-house guarantees and financing)

- Outsourcing of systemically important infrastructure to a separate unit

- Self-sufficiency (introduction of geographical congruence of assets and liabilities)
- Dismantling of the big banks

In compliance with the principle of subsidiarity described above, these measures – with the exception of the dismantling of the big banks – are covered in principle by Article 9 para. 3 let. b of the Draft Banking Act. The dismantling of the big banks, which represents an act of expropriation and would entail the most massive interference in the economic freedom of the banks, requires an explicit basis in a federal law, if not in the Federal Constitution itself.

VII. Further permissible measures

The list of areas for measures in Article 9 para. 3 of the Draft Banking Act is not exhaustive. Based on Article 9 para. 1 and 2 of the Draft Banking Act, the Federal Council can stipulate supplementary requirements in other areas. Article 9 para. 1 and 2 of the Draft Banking Act, the specification of purpose (Article 7 para. 2 of the Draft Banking Act) and last but not least the list in Article 9 para. 3 of the Draft Banking Act give clear guidelines regarding the direction of the measures and the requirements regarding proportionality and the severity of interference. In particular, the requirements may not exceed in severity those mentioned explicitly in Article 9 para. 3 letters a and b of the Draft Banking Act.

Moreover, the burden of proof of the reduction in risk through supplementary measures, the need for an adequately defined legal framework and the strict principle of proportionality substantially limit the measures that are permissible based on Article 9 of the Draft Banking Act. Based on Article 9 para. 1 and 2 of the Draft Banking Act, only those measures where the cause and effect correlation can be identified directly and can be demonstrated are permissible. For measures that reduce risk indirectly and whose efficacy is unclear and which represent a serious encroachment on fundamental rights, there is an insufficiently specific statutory basis in the law.

Article 9 para. 1 and 2 of the Draft Banking Act is required as a general clause on which to base any further necessary measures in an exceptional situation. However, these paragraphs should be used with restraint and only in truly exceptional circumstances.

VIII. Relationship with Article 4 para. 3 of the Banking Act

Supplementary requirements for the big banks have been permitted in the past: "In special cases, FINMA is authorised to permit less stringent application of the guidelines or to seek enforcement of more stringent provisions." (Article 4 para. 3 of the Banking Act).

The new provisions are *leges speciales* to Article 4 para. 3 of the Banking Act, so, based directly on Article 4 para. 3 of the Banking Act and justified by the systemic importance, FINMA does not have to render any orders in the future. In derogation to Article 4 para. 3 of the Banking Act, which includes a discretionary clause, supplementary requirements must now be imposed on systemically important banks.

Responsibilities (Article 10 of the Draft Banking Act)

Article 10 of the Draft Banking Act governs responsibilities and contains an explicit legislative mandate for the Federal Council. It makes clear that Article 9 of the Draft Banking Act is not in itself a sufficient basis for the prescription of supplementary requirements by FINMA, and that these could only be prescribed based on an ordinance issued by the Federal Council. At the same time, it is also made clear that the Federal Council ordinance should give FINMA sufficient scope to allow it to tailor the measures to individual cases, which certainly does not preclude the fact that banks can be bound directly by the Federal Council ordinance.

The Swiss National Bank is responsible for deciding whether a bank is systemically important. It can either carry out the process independently or upon a mandate from FINMA. Together with the decision regarding the systemic importance of a bank, the SNB can, if necessary, also determine which of the bank's functions are systemically important, so that the bank can take measures to ensure they continue to function in the event of financial restructuring measures or bankruptcy (Article 10 para. 2 of the Draft Banking Act). Before it makes its decision, the SNB must consult FINMA, which can also make proposals. A new order can be rendered upon any change in circumstances.

If the systemic importance of the bank is determined, FINMA prescribes the supplementary requirements that must be fulfilled by the bank by issuing an order (Article 10 para. 3 of the Draft Banking Act). The Swiss National Bank must be consulted in this process and can make proposals (Article 10 para. 4 of the Draft Banking Act). If FINMA wishes to prescribe organisational measures in addition to the supplementary requirements governing capital, liquidity and risk diversification, it must observe the principle of subsidiarity in accordance with Article 9 para. 3 let. b and para. 4 of the Draft Banking Act. It must accordingly first give the bank the opportunity to prove that the continuation of the systemically important functions as defined by the SNB is guaranteed.

Swiss National Bank orders can be challenged in accordance with Article 10 para. 2 of the Draft Banking Act and those rendered by FINMA can be challenged in accordance with Article 10 para. 3 of the Draft Banking Act by filing a complaint with the Federal Administrative Court (Article 53 para. 1 let. a of the National Bank Act, Articles 53 and 54 of the Financial Market Supervision Act).

A3.2.2 Section 6: Additional corporate capital

Principles

In the new Section 6 of the Banking Act governing additional corporate capital, new capital instruments are made available to the banks in the form of reserve and convertible capital. Despite the reference to supervisory law, this is primarily a private law instrument. Both reserve capital and convertible capital may only be used to strengthen the capital base with reference to the capital requirements under supervisory law.

The new instruments should be primarily preventive in nature and be used to avoid bankruptcy; however, they target different points. The reserve capital ensures that new capital can be accessed quickly and easily in an emergency situation. In contrast, bonds can be issued based on the convertible capital which can be converted to equities in an emergency situation (so-called contingent convertible bonds). Therefore, the convertible capital – in contrast to the reserve capital – already creates additional security in anticipation of a future crisis. As the contingent convertible bonds issued represent primarily debt capital that becomes equity capital only in an emergency, an additional, enormously increased (in comparison to current amounts) capital buffer, which is largely cost neutral, can be introduced. The reserve capital is linked to the authorised share capital in accordance with Article 651 et seq. of the Code of Obligations, the convertible capital to the conditional share capital in accordance with Article 653 et seq. of the Code of Obligations.

Reserve capital (Article 11 of the Draft Banking Act)

A new class of capital is created in the reserve capital which is linked to the authorised share capital. The reserve capital is intended to make it easier for the bank to issue new share capital in a crisis situation, thereby strengthening the capital base and ensuring that the capital requirements are met at all times. The differences between reserve capital and authorised capital derive from this purpose. Compared with authorised capital, reserve

capital is characterised by a narrower scope of application with enhanced delegable competences in favour of the Board of Directors.

I. Powers of the General Meeting / contents of the articles of incorporation (Article 11 para. 1 – 3 of the Draft Banking Act)

Both authorised capital and reserve capital require a resolution by the General Meeting and a change to the articles of incorporation (Article 11 para. 1 of the Draft Banking Act). The Board of Directors is thereby authorised to carry out a capital increase based on the reserve capital and to issue new shares.

In contrast to authorised capital, the amount and the duration of the reserve capital is not limited by law. However, the General Meeting can impose limitations, which must be entered into the articles of incorporation (Article 11 para. 2 and 3 no. 1 of the Draft Banking Act). A retroactive limitation of the reserve capital is also permissible, which is in effect tantamount to a revocation of the authorisation given to the Board of Directors by the General Meeting.

The articles of incorporation must then include the amount of the investments to be made, the share type, including any pre-emptive rights, the contents and value of any special benefits and any limitation to the transferability of new registered shares. In contrast to authorised capital, the General Meeting can delegate the determination of these aspects of the capital increase to the Board of Directors, whereby this delegation must be entered into the articles of incorporation.

The resolution regarding the creation of reserve capital is passed by the simple majority. Article 704 of the Code of Obligations does not apply (Article 11 para. 6 of the Draft Banking Act). The additional capital may be used only in conjunction with the regulations governing capital (Article 13 para. 1 of the Draft Banking Act). The need for and justification of the protection of minority interests in Article 704 of the Code of Obligations is waived.

II. Increase in capital by the Board of Directors

As with authorised capital, reserve capital requires a delegation of authority by the General Meeting to the Board of Directors. The Board of Directors can increase the share capital within the parameters of the resolution granting authorisation passed by the General Meeting. It also discharges all the necessary provisions. The determination of the nominal amount of the increase, the number and nominal value of the new shares, as well as the issue amount lies within the authority of the Board of Directors (Article 11 para. 4 of the Draft Banking Act).

Within the parameters of the authorisation granted by the General Meeting, the Board of Directors decides independently whether, when and to what extent the share capital should be increased. Moreover, it is bound by the purpose set out in Article 13 para. 1 of the Draft Banking Act governing reserve capital. A capital increase based on reserve capital may be used only to strengthen the capital base (see below, general provisions, Article 13 of the Draft Banking Act).

If a capital increase had to be made based on reserve capital, the question of whether and how the "authorised" capital is increased must be raised. Article 11 para. 6 of the Draft Banking Act answers this question with the exclusion of Article 651a para. 1 of the Code of Obligations to the effect that the reserve capital, in contrast to the authorised capital, remains at the same level despite the capital increase. Therefore, any limitation vis-à-vis the amount merely serves as a limitation on the individual step pertaining to the increase. This also derives from the purpose of the reserve capital. It is difficult to estimate in advance how much reserve capital will be required in a crisis. It is perfectly feasible that the capital will have to be increased several times – quite possibly at relatively short intervals. The need for

a new resolution by the General Meeting would therefore contradict the purpose of the quick increase of capital in a crisis situation.

III. Exclusion of subscription rights

Article 11 para. 5 of the Draft Banking Act assigns the decision regarding the exclusion of the subscription rights of existing shareholders to the Board of Directors from the outset. This regulation therefore differs from that governing the authorised capital increase, for which the decision is taken by the General Meeting (and passed by a qualified majority). However, in the case of listed companies, the General Meeting can delegate this to the Board of Directors in compliance with the requirements set out in the Decisions of the Swiss Federal Supreme Court 121 III 219.

A deviation from the rules applicable for the authorised capital increase can be made in order to ensure that the requisite capital can be quickly and easily accessed in a crisis situation. As the reserve capital can be used only to strengthen the capital base, the interests of the shareholders are sufficiently taken into account, particularly if the Board of Directors may only exclude the subscription rights for important reasons (Article 11 para. 5 no. 1 of the Draft Banking Act).

An important reason for exclusion is determined in accordance with the purpose of the reserve capital. Since the reserve capital can be used only to strengthen the capital base (cf. Article 13 of the Draft Banking Act), the examples cited in Article 652b para. 2 of the Code of Obligations – takeover of parts of companies or employee participation – are not relevant. However, an exclusion of subscription rights can be justified based on considerations founded on capital market regulation, namely the quick and effective placement of the new shares in the international environment or the fact that the new shares must be issued to a new investor immediately and smoothly in order to ensure that the capital increase succeeds. Both cases could be deemed an important reason. Whether the exclusion of subscription rights is necessary to ensure the quick and smooth sale of the shares must be examined on a case-by-case basis. The last financial crisis showed that recapitalisation via a capital increase with subscription rights can work perfectly well even in an acute crisis. In this respect, a clear distinction must be made between the exclusion of subscription rights in the case of reserve capital and the exclusion of pre-emptive subscription rights in the case of convertible capital (see below). If a capital increase can be carried out quickly and smoothly and subscription rights can also be granted, the exclusion of subscription rights cannot be justified solely as being due to considerations founded on capital market regulation. Other considerations, particularly the fact that the capital increase based on reserve capital is fundamentally carried out as an emergency measure in a crisis situation, could justify the exclusion of subscription rights in this particular case.

Moreover, the principles derived from precepts and court decisions on the admissibility of the exclusion of subscription rights can be used as comparisons to a great degree. According to these, the exclusion of subscription rights is permissible if (i) it is justified by a qualified objective interest of the company and is necessary in order for the target to be met, (ii) the principle of equality of treatment is observed with regard to the shareholders and (iii) it satisfies the principle of considerate enforcement.

IV. Responsibility

Considerable decision-making authority is granted to the Board of Directors in the case of the issue of shares based on reserve capital. Moreover, the use of reserve capital often means that the bank is in a difficult financial situation in which quick action is required. This can result in price reductions and questions being asked about the value of the shares and the dilution of the holdings of current shareholders. This makes the question of the responsibility of the bodies concerned pertinent.

This is primarily based on the general provisions of company law. The basis for liability in accordance with Article 752 et seq. of the Code of Obligations is a violation of duty. The bodies are only liable for damage that arises as the result of a violation of a statutory requirement or duty. The stipulations of the courts with regard to due diligence are a decisive factor here. The courts observe restraint when ruling on business decisions. They do not consider their own judgment to be superior to that of the company's bodies. Even if a management decision is subsequently shown to have been mistaken, this does not represent a violation of duty and does not constitute liability if said decision was taken based on an appropriate level of information and a serious and appropriate decision-making process (business judgement rule). The Board of Directors thus retains room for manoeuvre that is not subject to judicial review in accordance with Article 752 et seq. of the Code of Obligations, and the courts must respect the specific situation in which the company may find itself.

It seems that problems of liability will arise less frequently in the earmarking of reserve capital and arise mainly with capital increases introduced by the Board of Directors based on the reserve capital. The Board of Directors can determine the material provisions for the increase itself. These include the time of the capital increase, the scope of the amount, the issue price, the type of payment and, in accordance with Article 11 para. 5 of the Draft Banking Act, particularly the decision regarding the exclusion of subscription rights.

If the subscription rights are excluded, the issue of new capital can lead to a dilution of capital and voting rights. The shareholders of a bank have no choice but to accept a dilution of voting rights if there is a compelling reason for the exclusion of the subscription rights, such as to ensure sufficient capital and thus ensure that the system is protected. The determination of the existence of an important reason is based on the weighing up of the different interests.

In the case of a permissible exclusion of subscription rights, the shareholders must be protected with regard to the issue price. If the new capital is issued at market conditions, there is no dilution of capital. However, if shares are issued based on reserve capital, the extraordinary (crisis) situation in which the bank possibly finds itself must be taken into account. The law takes account of this by emphasising that the new shares must be issued at market conditions, but a discount is permissible if this facilitates the quick and complete sale of the shares and is in the interests of the company (Article 11 para. 5 no. 2 and 3 of the Draft Banking Act). By using such a formulation, the law makes reference to the Board of Directors' scope for discretion that is not subject to judicial review with regard to the issue price, and thereby specifies the business judgement rule in this respect.

The shareholders are protected by being bound by market conditions. However, the reference to market conditions also highlights the fact that a negative market environment, problems in placing a large tranche of shares or the negative signal given out by resorting to reserve capital can depress the issue price. In addition, it is pointed out that a complete and rapid sale of shares can, in certain circumstances, result in a substantial discount in relation to the previous stock market price. The Board of Directors must be able to ensure that the sale is immediately successful, which can justify a certain "security margin" and thus a further discount. Any reputational damage caused by the inability to place the new shares completely would be fatal in such a situation.

Convertible capital (Article 12 of the Draft Banking Act)

I. Concept

The increase in capital requirements for systemically important banks was defined as a key measure by the Commission of Experts. The creation of additional capital should be facilitated in order to enable this increase to take place with the minimum effect possible on competition. Convertible capital will fulfil this purpose.

With the support of the convertible capital, the bank can potentially acquire equity-replacing debt capital. Of particular interest are contingent convertible bonds (CoCo bonds). Financing using debt capital has advantages for the company. Tax considerations, fixed interest, the disciplinary effect on management and the leverage effect, thanks to which the return on equity can be increased, also play a part in this. By using convertible capital, the debt capital financing options and the concomitant advantages remain in place. The option of converting the debt capital into equity in a crisis situation means that the equity cover and therefore also security are already increased at the time of issue. Moreover, through conversion the debt is reduced and the liquidity of the bank is improved due to the cessation of interest and redemption payments.

The issue of contingent convertible bonds does not result in the assimilation of additional funds – taking the whole balance sheet into account – but merely in restructuring of debt capital. Naturally, the holders of the contingent convertible bonds will want to be compensated for their higher level of risk, but the obligation to convert in a crisis means that the remaining debt capital is more secure and therefore less expensive. Therefore, the use of convertible capital should not have any influence on the overall cost of debt capital and thus the profitability of the bank[68].

The holders of contingent convertible bonds will be aware from the outset that they would not benefit, or would benefit only to a negligible degree, from a de-facto state guarantee. In a crisis, their bonds would have been converted into equity long before there was any talk of government bailout measures. For as long as they are uncomfortable with the state of the bank's capital base, they will demand an additional risk premium. Any additional costs would result solely from the discontinuation of the implicit state guarantee and would therefore be appropriate.

A further clear advantage of contingent convertible bonds is that, if they are listed, they deliver an ongoing assessment of the relevant financial institution by the markets. This signal contributes to the early identification of crises.

Finally, convertible capital means that, in a company crisis, costs that would otherwise have to be borne by third parties, including the government, are transferred to outside creditors. While creditors normally suffer losses only in the case of bankruptcy or financial restructuring, the claims of creditors with contingent convertible bonds become void in a crisis situation and they are given a specific number of shares in lieu.

The aim of convertible capital is to contribute significantly to increasing the bank's crisis resistance. This means that the introduction will have to be staggered and that the banks will have to be given an appropriate timeframe in which to comply.

[68] This corresponds to a restricted application of the Modigliani-Miller theorem regarding debt capital. Tax factors do not play any role in debt capital.

Article 653 et seq. of the Code of Obligations provides one possible means of procuring conditional capital. However, the conditional capital increase can be used only for the purposes listed in Article 653 para. 1 of the Code of Obligations. The existing provision therefore would not offer the requisite flexibility to allow conditional capital to serve as a buffer in a crisis. Article 12 of the Draft Banking Act opens up this possibility and at the same time makes clear that convertible capital represents a discrete category of conditional capital. The main distinction lies in the conversion mechanism.

In the case of conditional capital, a specific group of persons is given a conversion or option right. The holders of convertible bonds therefore receive more than just interest. The conversion right also entitles the creditors to participate in any future positive business performance. Correspondingly, the interest on such convertible bonds is usually lower than on straight bonds. In contrast, according to the Banking Act, the conversion of new convertible capital is linked to an external event, at the occurrence of which the debt capital is converted into equity irrespective of the wishes of the creditor (Article 12 para. 1 no. 2 of the Draft Banking Act). Although the conversion occurs only in exceptional cases, the creditors are nevertheless taking on an additional risk. In the event of very negative future business performance, the bond is not repaid but converted into equity. Due to this additional risk, the interest costs for bonds funded with convertible capital will generally be higher than those for straight bonds. However, the lower the trigger chosen for the contingent convertible bonds, the lower the risk associated with the bank's business model, and therefore the less likelihood there is that the conversion will take place, the lower the risk premium will be and the more similar the financing conditions for contingent convertible bonds will be to those for straight bonds.

In the current discussion, different concepts for such contingent convertible bonds for the financial restructuring of institutions in a crisis are examined. On the one side of the spectrum, we find concepts in which the bonds are instruments purely under private law which would be converted at a relatively early juncture so that the equity cover never falls below a critical level (CoCos). On the other side of the spectrum, we find concepts where the bonds are converted only in the case of real insolvency or upon the intervention of the supervisory authority and the introduction of formal financial restructuring measures at the earliest (bail-in bonds). This draft law provides for a broad spectrum of options and leaves the specifics primarily to the banks.

However, there are currently serious tax impediments with regard to the issue of contingent convertible bonds and similar instruments in Switzerland. In order to enable them to be issued in Switzerland, thereby simplifying the supervisory task of the Swiss authorities, and to ensure their correct implementation and efficacy, tax law must be amended accordingly.

II. Powers of the General Meeting / contents of the articles of incorporation

The introduction of convertible capital requires the General Meeting to pass a resolution authorising the Board of Directors to issue contingent convertible bonds in the event of a financial crisis (Article 12 para. 1 and 3 of the Draft Banking Act).

In contrast to contingent capital, there are generally no limits for convertible capital in accordance with Article 653 of the Code of Obligations, as it is issued to increase the equity capital in the event of a crisis. Moreover, it is in the general interests of all concerned that all banks, but in particular the systemically important banks, can improve their crisis resistance via convertible capital. The General Meeting is entitled to limit the amount of convertible capital (Article 12 para. 2 of the Draft Banking Act), but this limitation must be entered in the articles of incorporation (Article 12 para. 3 no. 1 of the Draft Banking Act).

Furthermore, the General Meeting has the power to determine the share type, including any pre-emptive rights, any limitation to the transferability of the shares and the principles

according to which the issue amount is to be calculated. The General Meeting may instead delegate the authority to determine these aspects to the Board of Directors in the articles of incorporation (Article 12 para. 3 nos. 2-4 of the Draft Banking Act).

III. Powers of the Board of Directors

Within the parameters of the powers granted by the General Meeting, the Board of Directors may issue contingent convertible bonds or similar capital instruments (Article 12 para. 4 no. 1 of the Draft Banking Act).

Compared with contingent capital and in accordance with the Code of Obligations, convertible capital is characterised by a material shift in authority from the General Meeting to the Board of Directors, which is further strengthened by the fact that the General Meeting can additionally delegate a large part of its remaining decision-making powers to the Board of Directors (Article 12 para. 3 nos. 2-4 of the Draft Banking Act). The specific structuring of the contingent convertible bonds in accordance with Article 12 of the Draft Banking Act is thus the most far-reaching task of the Board of Directors (cf. list in Article 12 para. 4 of the Draft Banking Act). Insofar as the contingent convertible bonds are to be counted as capital, however, the supervisory requirements must be met (cf. section below on supervisory aspects).

An initial, material task of the Board of Directors is to decide whether, when and how many contingent convertible bonds will be issued and whether and how these will be broken down into different tranches (Article 12 para. 4 nos. 1 and 2 of the Draft Banking Act). This breakdown can be made in different ways. A first, temporal breakdown derives from the fact that the convertible capital cannot be made available immediately following the entry into force of the new provisions. This availability must be staggered, which has the positive side-effect that the issue is also staggered, which means that the market's risk assessment of the company is carried out at regular intervals. As well as the option of forming tranches via a staggered issue, the Board of Directors can also issue bonds with different maturity dates.

A second material task of the Board of Directors is to determine the trigger event and/or the trigger events in the case of several tranches that cause the bonds to be converted into shares (Article 12 para. 4 no. 3 of the Draft Banking Act). The Board of Directors also has considerable room for manoeuvre here. However, it is not permissible to make the conversion dependent on an event that cannot be determined objectively, such as the wishes of a creditor (Article 12 para. 1 of the Draft Banking Act). If different tranches are issued, they can be related to different trigger events. Several tranches can have the same trigger event, but be subordinate to each other in a hierarchy. This is another possibility for the breakdown of the convertible capital.

When issuing contingent convertible bonds, the Board of Directors must determine the conversion ratio, i.e. it must determine what the creditors receive in return in the case of a conversion. Here too, the legislator generally gives the institutions the greatest possible room for manoeuvre. Various approaches are feasible. For example, the conversion rate could be set when the bonds are issued or only at the time of conversion. While in the first scenario the risk for the creditors is materially higher, the problem of dilution of the shareholders' voting rights is accentuated in the second. It is the institution's duty to find an equitable solution for both groups.

Finally, it must be decided how many of the bonds issued should be converted in the event of the occurrence of the trigger event. The law allows the institution to make this decision too. Various models are feasible, such as a model incorporating staggered trigger events and/or models in which there is only a partial conversion, in which all creditors (in one tranche) are equally affected, although only partially, by the conversion.

Last but not least, the Board of Directors must determine the size of the issue, or, if a specific figure is not fixed, the rules according to which it will be decided (Article 12 para. 4 of the Draft Banking Act). If the subscription right is excluded, para. 5 must be observed, whereby the contingent convertible bonds must fundamentally be sold at market conditions. In particular, the restoration of convertible capital following a conversion can justify a discount in certain circumstances (cf. VI below on responsibility).

Insofar as the bank issues several tranches of contingent convertible bonds in order to meet its capital requirements, it will normally set up its own convertible capital programme in view of the many different options and the combined effects of the individual instruments. FINMA checks whether the contingent convertible bonds and/or the convertible capital programme are set up in such a way that the capital requirements are complied with (cf. section below on supervisory aspects).

IV. Exclusion of pre-emptive subscription rights

As in Article 11 para. 5 of the Draft Banking Act governing reserve capital, Article 12 para. 5 of the Draft Banking Act governing convertible capital also provides for a general delegation of the decision regarding the exclusion of pre-emptive subscription rights to the Board of Directors.

In contrast to reserve capital, convertible capital is not primarily designed to be issued in times of financial difficulty. Contingent convertible bonds should in fact be issued as a preventive measure. Therefore, a general delegation of the decision regarding the exclusion of pre-emptive subscription rights would not have to be provided. This would in fact make no material difference, as the pre-emptive subscription right is scarcely relevant in practice and the decision to exclude it is usually delegated to the Board of Directors. Conversion is carried out only in exceptional cases and the bonds can generally be acquired via the stock exchange.

In order for the pre-emptive subscription right to be withdrawn by the Board of Directors, there must be a compelling reason, i.e. the qualified objective interest of the company. This qualified objective interest is determined according to the purpose of the convertible capital. As already mentioned, convertible capital fulfils a fundamentally different function from conditional capital. Conditional capital is issued when business performance is good, convertible capital when it is bad. The option element in a standard convertible bond represents an asset for which the investor has to pay a price. The investor acquires a call option. The option element of the contingent convertible bond represents a liability, for which the investor requires compensation; the investor writes a put option. Conversion is the normal objective in the case of a traditional convertible bond; in the case of contingent convertible bonds it is the result of a life-threatening crisis. A traditional convertible bond can entail a considerable arithmetical dilution of the share capital at the time of issue, particularly if the conversion price is close to the current share price. In contrast, the issue of contingent convertible bonds should not ordinarily lead to a dilution of the share capital. Insofar as the offer to underwrite such bonds is economically advantageous in the individual case, this is primarily not to do with the option components but the combination of the conditions as a whole.

Therefore, there is little material difference between the placement of a contingent convertible bond and the sale of straight bonds. In particular, the risk of adversely affecting shareholders through the issue of a contingent convertible bond is from the outset materially lower than with the issue of a traditional convertible or option bond. Added to the lower risk of adversely affecting the shareholders, there is the even greater interest of the institution in the problem-free take-up of such capital. In view of the limited economic importance of the option components, any pre-emptive subscription rights would be of very little value. The effort involved in the allocation and distribution of pre-emptive subscription rights would therefore in

no way reflect the largely non-existent need for protection on the part of the shareholders. This might take on a different complexion if the bank has to replace or increase its contingent convertible bonds in a crisis situation and the conversion looks as if it will become a reality. At this juncture, the shareholders will have to accept certain encroachments on their interests. Furthermore, the smooth and expeditious sale of the bonds is of such enormous importance in a crisis situation, particularly from the point of view of reputation, that the withdrawal of pre-emptive subscription rights would also be justified. Atypical issue types reserved, the withdrawal of pre-emptive subscription rights in the case of contingent convertible bonds is therefore periodically justified, if not imperative. The possible atypical issue types militate against a general statutory suspension of pre-emptive subscription rights.

V. Increase in convertible capital after use

If the General Meeting has placed a limit on the convertible capital, the question arises whether a new resolution of the General Meeting is required in order to top up the convertible capital, as in the case with reserve capital. In contrast to reserve capital, it is primarily not in a crisis situation that contingent convertible bonds are issued, but more often in advance of such a situation in order to create a buffer zone. Correspondingly, the repeat increase following a conversion requires another resolution of the General Meeting. After the conversion of a tranche and in order not to be dependent on the General Meeting, the Board of Directors can (and indeed should) refrain from issuing the full amount of convertible capital that it has been authorised to issue. It thereby creates a type of "reserve convertible capital".

VI. Responsibility

The background and problem of the responsibility of the bodies with regard to convertible capital corresponds to the greatest possible extent to that regarding reserve capital (cf. section above on reserve capital, Article 11 of the Draft Banking Act).

Also in the case of convertible capital, the responsibility-related questions surround less so the earmarking of convertible capital – this is carried out by the General Meeting – and more the issue of contingent convertible bonds by the Board of Directors and any conversion. The Board of Directors has far-reaching decision-making authority and in essence determines the conditions of the issue and the prerequisites for conversion. The topics that can give rise to discussion are the issue price and conversion ratio, and the associated problems regarding the dilution of capital and voting rights.

If the pre-emptive subscription right is excluded for a compelling reason, the shareholders must accept the dilution of voting rights in the interests of the institution and the security of the system. If the conversion ratio is not determined until the time of conversion, the problem of the dilution of voting rights is exacerbated. In order to protect the shareholders from a dilution of capital, both during the issue of the bonds and also during the conversion itself, the issue amount must also be fundamentally bound by market conditions. In order to ensure the efficacy and expediency of the convertible capital in the interests of the institution and the security of the system, the Board of Directors must be granted a certain amount of discretion when issuing bonds.

As in the case of reserve capital, the draft revision therefore proposes that liability should in principle be based on the general provisions of the legislation on companies limited by shares and – in analogy to the provisions governing reserve capital – the protected business judgment rule should be specified such that, in the event of the exclusion of pre-emptive subscription rights, the issue of contingent convertible bonds must in principle be made at market conditions, but a discount is permissible if this is in the interests of the company and will result in the quick and complete placement.

General provisions (Article 13 of the Draft Banking Act)

The new forms of capital are largely based on the authorised and/or conditional capital. Accordingly, these provisions also apply mutatis mutandis (Article 11 para. 6 of the Draft Banking Act; Article 12 para. 6 of the Draft Banking Act). However, these are new capital categories. They do not replace the existing categories. Banks can continue to create conditional and authorised capital, even if the importance of such capital will probably decrease in the banks' eyes.

I. Purpose of the additional company capital (Article 13 para. 1 of the Draft Banking Act)

The primary function of reserve and convertible capital should not, however, be to open up new and more flexible ways for banks to create capital. They are primarily instruments that are closely connected with capital requirements and supervisory law. The law illustrates this in Article 13 para. 1 of the Draft Banking Act: "The additional company capital may be used only to strengthen the capital base in conjunction with the capital requirements". The use of reserve and convertible capital is thereby linked to the purpose of strengthening the capital base.

However, this is a qualitative limitation not a quantitative one. The capital increase must result in an improvement in the equity cover. The effect of the capital increase is decisive. The reason why the capital increase became necessary is beside the point, but capital increases for a merger or the takeover of a company, for example, are excluded. A quantitative limitation would apply if the capital was already considerably higher than the sensible, risk-appropriate values.

II. Scope of application (Article 13 para. 2 of the Draft Banking Act)

All banks with the legal form of a corporation can make use of the option of raising additional capital (Article 11 para. 1 of the Draft Banking Act and Article 12 para. 1 of the Draft Banking Act). Even non-systemically important banks can increase their crisis resistance through reserve and convertible capital. This not only has advantages for the relevant bank but also contributes to increasing the security of the system. The entire financial centre benefits from this.

However, banks have to meet the capital requirements not only at individual institution level. Financial groups and financial conglomerates (cf. Article 3c of the Banking Act for a definition of the term) must also meet the capital requirements at group and/or conglomerate level, and they are subject to consolidated supervision (Article 4 of the Banking Act, Article 6 of the Capital Adequacy Ordinance, Articles 11 to 14 of the Banking Ordinance).

In accordance with these principles, Article 13 para. 2 of the Draft Banking Act extends the possible use of reserve and convertible capital to the group parent companies of a financial group or financial conglomerate. These institutions can use the reserve and convertible capital even if they are not themselves banks within the meaning of the Banking Act. Because of the connection between additional company capital and capital requirements, it is not ruled out from the outset that in exceptional cases – insofar as permitted by the capital requirements –further group companies which are not banks but which are relevant at group level for meeting the capital requirements can fall back on the reserve and convertible capital.

Supervisory aspects

Despite their connection with supervisory law, reserve and convertible capital remain primarily private law instruments. Accordingly, the relevant decisions must also be taken by

the General Meeting and/or the Board of Directors upon the issue of reserve or convertible capital. Namely the capital structure and issue conditions and the structure of the convertible capital are important business decisions which must be taken by the company itself and for which the state can take no responsibility.

However, it has to be ensured that the targets pursued under supervisory law are achieved via the reserve and convertible capital. This is particularly important in the case of convertible capital. State influence is exerted only indirectly via the regulations on capital, within the parameters of which it is also determined under what circumstances and to what degree capital instruments can be offset in fulfilling the capital requirements in accordance with this section. The following aspects have to be taken into account:

- The level of the capital requirements is fundamentally based on the Federal Council Capital Adequacy Ordinance and also on the provisions of Section 5 of the Banking Act in the case of systemically important banks.

- It is the task of the state and/or FINMA to ensure that the capital requirements are fulfilled. The ways and means of fulfilling these requirements should in principle be left to the banks. An obligation to use convertible capital exists only to the extent that this is necessary in order to meet the targets pursued under supervisory law. Accordingly, the capital requirements under component III are to be met using contingent convertible bonds.

- Based on Article 4 para. 2 of the Banking Act and for systemically important banks based on Article 10 para. 1 of the Draft Banking Act, the Federal Council must rule in general/abstract terms on the minimum requirements for contingent convertible bonds in accordance with Article 12 of the Draft Banking Act. These minimum requirements describe the requirements with regard to the quality of the contingent convertible bonds, to ensure that they can fulfil their function as equity-replacing debt capital. They are therefore closely linked with the minimum capital requirements. Within the parameters of these requirements, the Federal Council can indirectly, via acceptability, also issue instructions regarding individual aspects of the structure of contingent convertible bonds. Their specific structure, however, is a matter for the Board of Directors. Moreover, the Federal Council must determine to what extent contingent convertible bonds can be used to meet the different capital components (minimum requirement, buffer, progressive components for systemically important banks), and which trigger events are to be envisaged in this respect.

- Many complex decisions must be taken concerning the issue of contingent convertible bonds. In the broadest sense, these are business decisions. In addition, the issue will also affect foreign legal systems to a large extent. The individual companies must therefore be given as much freedom as possible when structuring the contents and in tailoring the convertible bonds to their individual needs. If the state limits their room for manoeuvre unnecessarily, it effectively takes operational decisions, which would throw up the question of possible responsibility and liability of the state. The state must therefore practice restraint with regard to contents.

- At the same time, it must be ensured that the targets under supervisory law are achieved. Therefore, it makes sense to adopt a functional approach like with the organisational measures, according to which the state defines the targets and minimum requirements (e.g. with regard to forming tranches, staggering based on time, staggering based on trigger mechanism) and the banks have to provide evidence that the convertible capital issued is sufficient to meet these requirements. The banks must work out their own convertible capital programme, which will then be examined by FINMA as part of capital checks.

- Based on this two-step process – the determination of the structure by the bank and indirect state influence – timely and ongoing dialogue is necessary between FINMA and the bank affected, for example as part of the regular capital planning meetings between FINMA and banks. This exchange does not necessarily need to be formalised.

A4 Overview of international TBTF initiatives

Table 1: Banks

	What? Brief description of content	**When?** Temporal dimension	**How?** Form of initiative	**Where?** Source details
Basel Committee on Banking Supervision (BCBS)				
	Confirmation of key thrust of initiative, including capital surcharges for Systemically Important Financial Institutions (SIFIs)	6 September 2009	Mandate of the "Group of Central Bank Governors and Heads of Supervision" (Oversight Body of the BCBS) to the BCBS	http://www.bis.org/press/p090907.htm
	Concrete proposals for the improvement of capital and liquidity regulation	17 December 2009	The BCBS publishes two consultative documents, comments up to 16 April, 2010	http://www.bis.org/press/p091217.htm http://www.bis.org/publ/bcbs164.pdf http://www.bis.org/publ/bcbs165.pdf
	Compromise package on the main components of the reform of the capital and liquidity regime for banks with respect to capital quality, counterparty default risks, leverage ratio, countercyclical buffers, treatment of systemically important banks with respect to capital instruments ("contingent capital") and capital surcharges, liquidity	26 July 2010	Agreement on the design of the reform of capital and liquidity regulation	http://www.bis.org/press/p100726.htm
	Proposals for the creation of a pro-cyclical capital buffer, methodology,	July 2010	The BCBS publishes a document for consultation; comments up to 10 September 2010	http://www.bis.org/publ/bcbs172.pdf

	indicators, calculation of bank-specific buffers			
	Recommendations on the "resolution" (crisis management, intervention, restructuring, liquidation) of banks active in the cross-border business	March 2010	Final report of the working group of the Basel Committee	http://www.bis.org/publ/bcbs169.pdf
	Assessment of the long-term macroeconomic repercussions of more rigorous capital and liquidity requirements	August 2010	Comprehensive scientific study under the leadership of the Chief Economist of the BIS	
	Proposal to ensure the loss absorbency of regulatory capital at the point of non-viability	August 2010	Consultative paper of the Basel Committee, comments up until 1 October 2010	http://www.bis.org/publ/bcbs174.htm
	Higher global minimum capital requirements	September 2010	Press release from the Group of Governors and Heads of Supervision on the new capital requirements. GHOS is the supreme governing body of the Basel Committee	http://www.bis.org/press/p100912.htm
Financial Stability Board				
	Improving regulation (including leverage ratio)	25 September 2009	Proposals of the FSB to the G20	http://www.financialstabilityboard.org/publications/r_090925b.pdf
		7 November 2009	Report on the progress of work sent to finance ministers and central bank governors in the run-up to the meeting in St. Andrews	http://www.financialstabilityboard.org/publications/r_091107a.pdf
		9 January 2010	New: "Framework to strengthen adherence to international standards" with periodic peer reviews and confirmation of existing thrust of initiative	http://www.financialstabilityboard.org/press/pr_100109b.pdf
		18 June 2010	Reducing the moral hazard posed by systemically important financial institutions	http://www.financialstabilityboard.org/publications/r_100627b.pdf

EU				
	Criteria and binding regulations for state intervention to help financial institutions in the context of overcoming crises		Conditions of the EU Commission for the approval of state intervention (based on competitive and/or TBTF considerations)	
	Creation of a new body responsible for macro-supervision and systemic risks	June 2009	Proposal of the EU Commission to establish a European Systemic Risk Board	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/de/ec/108654.pdf (p. 6 et seq.)
	Positive evaluation of bank levies that depend on leverage ratio and level of risk assumed	April 2010	Study by the EU Commission: "Innovative financing at a global level"	http://ec.europa.eu/economy_finance/articles/international/documents/innovative_financing_global_level_sec2010_409en.pdf
OECD				
	Analysis of bank structure and promotion of non-operating holding company as possible solution	12 October 2009	Chapter in the OECD publication: The Financial Crisis – Reform and Exit Strategies (p. 16 et seq., p. 53 et seq., and p. 82 et seq.)	http://www.oecd.org/dataoecd/55/47/43091457.pdf
		8 January 2010	Chapter in the OECD publication: Financial Market Trends (p. 1 et seq.)	http://www.oecd.org/dataoecd/13/8/44357464.pdf
	General proposals for a new financial market architecture	20 May 2010	Speech by Angel Gurria at a conference on financial market regulation: "Why sound institutions and smart regulation matter"	http://www.oecd.org/document/51/0,3343,en_2649_37443_45263475_1_1_1_1,00.html
USA				
	Dodd-Frank Wall Street Reform and Consumer Protection Act	Signed by President Obama on 21 July 2010	- Establishment of a Financial Stability Oversight Council with the power to set enhanced requirements for SIFIs in the area of capital, liquidity and risk management. Regulation of systemically important financial institutions that are not banks, enforcement by the Fed. Authority to hive off parts of a systemically important financial institution if these are deemed to pose a risk to	http://banking.senate.gov/public/_files/FinancialReformDiscussionDraft111009.pdf

			financial stability - Creation of a specific resolution procedure for systemically important institutions that become insolvent, with the aim of avoiding bailouts at the cost of the taxpayer in future - "Volcker Rule": Ban on proprietary trading for banks with FDIC-insured deposits and restricted participation in hedge funds and private equity (max. 3% of tier 1 capital) - Enhanced consumer and investor protection - Capital and liquidity requirements for SIFIs - Leverage restrictions - Crisis preparation: systemically important institutions must submit so-called "funeral plans" on a regular basis - Ban on institution-specific assistance measures by the Fed - Structural reform of supervisory authorities (in particular, enhanced powers for the Fed and SEC) - Expansion of scope of regulation to include previously unregulated (or little-regulated) areas of the financial sector, particularly non-banks and derivatives which have so far been traded over the counter (OTC)	
	Financial Crisis Responsibility Fee ("Obama Tax")	January 10	- Levy dependent on size of balance sheet - Refinancing of the US TARP	http://www.whitehouse.gov/the-press-office/president-obama-proposes-financial-crisis-responsibility-fee-recoup-every-last-penn and http://www.whitehouse.gov/sites/default/files/financial_responsibility_fee_fact_sheet.pdf

UK				
	Banking Act 2009	21 February 2009	– Special Resolution Regime (SRR) giving the authorities a permanent framework for providing tools for dealing with distressed banks	http://www.opsi.gov.uk/acts/acts2009/pdf/ukpga_20090001_en.pdf
	Financial Services Act	8 April 2010	– Duty of FSA to establish rules requiring firms to produce recovery and resolution plans	http://www.opsi.gov.uk/acts/acts2010/pdf/ukpga_20100028_en.pdf
	Initiatives of the UK government	January 2010, in discussion	– Size restriction, requirement for SIFIs to undertake divestments – Diversification and competition in the retail market by attracting foreign providers	
	New Commission on Banking	July 2010	– New Independent Commission on Banking investigating how to reduce systemic risk in the banking sector, including question as to whether banks should be split up (due to report in September 2011)	http://www.hm-treasury.gov.uk/d/banking_commission_terms_of_reference.pdf
	Bank Levy (consultation until 5 October 2010)	July 2010	– The structure of the levy is intended to encourage banks to move away from riskier funding models, reducing systemic risk	http://www.hm-treasury.gov.uk/d/consult_bank_levy_condoc.pdf
	A new approach to financial regulation: judgement, focus and stability (consultation until 18 October 2010)	July 2010	– Proposals generally intended to reduce the risk posed by SIFIs – Giving the Bank of England powers over macro-prudential regulation through a newly established Financial Policy Committee (FPC) – Creation of a new prudential regulator under the control of the Bank of England which will be responsible for supervising the safety and soundness of individual financial firms – Creation of a new Consumer Protection and Markets	http://www.hm-treasury.gov.uk/d/consult_financial_regulation_condoc.pdf

			Authority (CPMA) to act as a single integrated regulator focussing on conduct in financial markets – Clear procedures on crisis management – Commitment of government to play an active role in international discussion on proposals to reduce the risks posed by SIFIs, including mandatory requirements for banks to hold securities that are convertible into equity or subject to "haircuts" at a specific trigger point, legal powers for regulators to direct a recapitalisation of a failing firm, and harmonised and enhanced resolution regimes	
	Initiative of UK Parliament	March 2010	– "Too important to fail – too important to ignore" report and recommendations to the government	
The Institute of International Finance (IIF – private-sector organisation)				
		July 2008	Final Report of the IIF Committee on Market Best Practices (CMBP Report): Principles of Conduct and Best Practice Recommendations, Financial Industry Response to the Market Turmoil of 2007 – 2008	http://www.iif.com/regulatory/
		December 2009	The Report of the IIF Steering Committee on Implementation (SCI): Reform in the Financial Services Industry: Strengthening Practices for a More Stable System The report provides an overview of the implementation of the recommendations contained in the CMBP report	http://www.iif.com/regulatory/
		July 2009	Report of the Special Committee on Effective Regulation (SCER): Restoring Confidence, Creating Resilience – An Industry Perspective on the Future of International Financial Regulation and the Search for Stability	http://www.iif.com/regulatory/
	Resolution proposals (crisis management, intervention,	May 2010	Working group for the development of corresponding proposals from the perspective of the private sector;	IIF: A Global Approach to Resolving Failing Financial Firms

	restructuring, liquidation) of banks active in the cross-border business		submission of a final report	(http://www.iif.com/regulatory/)
	Proposals for the definition of "system risk" and for dealing with systemically important institutions, case studies on the benefits of large institutions	May 2010	Working group responsible for presenting the perspective of the private sector; submission of a final report	IIF: Systemic Risk and Systemically Important Firms – An Integrated Approach (http://www.iif.com/regulatory/)
	Assessment of the repercussions of the capital and liquidity reform proposals for the global economy	June 2010	Elaboration of a theoretical model to replicate the translation mechanisms between banking regulation and the economy; submission of an interim report	IIF: Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework (http://www.iif.com/regulatory/)
	Evaluation of contingent capital as a supervisory instrument	June 2010	Report from the perspective of the private sector	IIF: Contingent Capital (http://www.iif.com/regulatory/)

Table 2: Insurers

	What? Brief description of content	**When?** Temporal dimension	**How?** Form of initiative	**Where?** Source details
International Association of Insurance Supervisors (IAIS)				
	Common framework for internationally active insurance groups and registering of group-specific risks	1 July 2010	The ComFrame Task Force develops a concept for registering group structure, business mix and group-internal transactions, sets quantitative and qualitative requirements, and registers the cooperation between supervisory authorities as well as jurisdictional questions regarding implementation. This is designed to simplify the supervision of groups internationally	http://www.iaisweb.org/__temp/19_January_2010__IAIS_approves_development_of_a_Common_Framework_for_the_Supervision_of_Internationally_Active_Insurance_Groups.pdf
	Development of the ComFrame concept paper	Mid-2011	Elaboration of an initial general concept paper	
	Calibration of ComFrame	From mid-2013	Calibration of the concept with the corresponding impact studies	
	Note on Systemic Risk and the Insurance Sector	25 October 2009	Approval of the Note by ExCo and publication of the paper	http://iaisweb.org/__temp/Note_on_systemic_risk_and_the_insurance_sector.pdf
	Working paper on key financial stability issues for FSB	20 August 2010	The paper is a further development of the "Note on Systemic Risk and the Insurance Sector" and undertakes an extensive treatment of elements of financial stability such as systemic risks and macro-prudential supervision in the context of the insurance sector. The key messages are likely to find their way into the FSB paper on SIFIs to the G20	

	Supervisory guidance paper on the use of supervisory colleges in group-wide supervision	26 October 2009	Approval of this guideline paper that highlights the main elements for effective supervisory colleges	http://www.iaisweb.org/__temp/26_October_2009__International_insurance_supervisors_support_G-20_Declaration_by_adopting_guidance_on_the_use_of_supervisory_colleges.pdf
	Supervisory colleges	April 2010	Follow-up of the guideline paper by means of a survey	
Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS)				
	Two reports on financial stability in the EU insurance sector	May and October 2010	Two reports will be produced annually for the European Economic and Finance Committee, including early warning indicators in connection with financial stability in the EU insurance sector	
	Data gathering for macro-prudential surveillance	2010, ongoing	CEIOPS will continue with the data gathering and storage process, and set up a corresponding database	
	Macro-prudential surveillance	2010, ongoing	A joint cross-sector initiative (of insurance companies, banks and conglomerates) aims to identify cross-sector risks and potential “contagion” and analyze the distorting influences of regulations (such as new remuneration systems and limits, for example)	
	Stress test	2010, ongoing	The findings of the Europe-wide stress test will be used to improve collaboration between supervisory authorities, particularly with respect to the supervision of insurance groups active in cross-border business	

USA				
	Dodd-Frank Act and Consumer Protection Act	In force since 21 July 2010	A regime for the resolution of systemically important players (including non-banks) is being introduced. Financial institutions threatened by bankruptcy can be split up or restructured if a substantive risk is posed to system stability. A Federal Insurance Office is being set up within the US Treasury that will represent the US in international regulation questions.	
Geneva Association (private-sector organisation)				
	Geneva Association Systemic Risk Working Group	March 2010	The report analyzes systemic risk in the insurance sector and at the same time proposes measures for strengthening the financial system	http://www.genevaassociation.org/Portals/0/Geneva_Association_Systemic_Risk_in_Insurance_Report_March2010.pdf
	Geneva Association Systemic Risk Working Group	July 2010	Follow-up report to the first report of March 2010. The report sets out an overview of discussions with supervisory authorities and political decision-makers since then	http://www.genevaassociation.org/PDF/BookandMonographs/Geneva_Association_Key_Financial_Stability%20Issues_in_Insurance_July2010.pdf
Comité Européen des Assurances (CEA)				
	CEA reports on differences between banks and insurers	June 2010	The report compares the business models of banks and insurers, and explains why the measures to strengthen the banking sector are not appropriate for the insurance sector	http://www.cea.eu/uploads/DocumentsLibrary/documents/1277383780_cea-report-insurance-a-unique-sector.pdf
International Actuarial Association (IAA), umbrella association for all actuarial associations				
	Working group of the Insurance Regulation Committee of the International Actuarial Association	October 2010	Report on the role of the actuary in regulating systemic risks. An examination of the systemic risks in the financial sector from an actuarial perspective.	http://www.actuaries.org

A5 Manifestations of TBTF elsewhere in the economy – spotlight on infrastructure companies

A5.1 Size

Many Swiss infrastructure companies are owned by the Swiss Confederation, the Swiss cantons or communes, as the following table shows. The fundamental question here is whether an existence-threatening situation can actually arise in the case of companies owned by the state, or whether funding would not be injected before this came about, even if such a situation – at least under the prevailing parameters at the time in question – were not apparent from an operational perspective. The most that can be said against this assumption is that the ownership structure in infrastructure sectors such as electricity supply could actually prove too complicated for such a "burden-sharing" resolution among the involved body politic (including any private shareholders) to be arrived at within a sufficient space of time.

Table: Major infrastructure businesses in Switzerland in 2008[69]

	Company	Holding of Confederation/ canton/commune	Balance sheet total in CHF bn	Number of employees	Sales in CHF bn
1	Swiss Post[70]	100% Confederation	72	53,200	9
2	SBB	100% Confederation	31	28,063	8
3	Swisscom AG	min. 50% by Confederation	23	19,943	12
4	Axpo Holding AG[71]	100% by cantons of North-East Switzerland	18	3,935	8
5	Alpiq Holding AG[72]	> 60% directly/ indirectly by cantons and communes	18	10,551	16
6	BKW FMB Energie AG	More than 50% by Canton of Bern	6	2,781	3

[69] Sources: Handelszeitung (2009) and 2008 annual reports

[70] Incl. PostFinance

[71] Incl. Axpo AG (up to 2009, Nordostschweizerische Kraftwerke AG, NOK), Centralschweizerische Kraftwerke AG (CKW), Elektrizitäts-Gesellschaft Laufenburg AG (EGL), Axpo Informatik AG

[72] A new company that arose in 2009 through the merger of Atel Holding (previously Motor-Columbus) and EOS Holding, including the subscription rights of EDF in Emosson. Balance sheet total as at 2009. Atel and EOS aggregated in 2008 approx. CHF 16 billion. Sales and number of employees likewise aggregated.

7	Swiss International Airlines	none	3	6,026	5
8	Unique Zurich Airport	33% + 1 share (Canton of Zurich)	3	1,482	1
9	SRG SSR idée suisse		1	6,164	2
10	Skyguide	More than 99% Confederation	0.7	1,297	0.4
11	Inselspital Bern		0.3	6,970	1[73]
12	Sunrise Communications AG		n/a	2,000	2
13	Cablecom		n/a	1,400	1
14	Orange Communications AG		n/a	1,147	1

Especially worthy of mention where size is concerned is Swiss Post, with a balance sheet total of CHF 72 billion. This sum is for the most part made up of customer deposits with PostFinance, however. If the company were to be viewed solely on the basis of its purely postal services, the balance sheet total would fall to single-digit billion territory.

Compared with banks, the balance sheet totals of infrastructure companies are relatively small, while their number of employees is relatively high. The bankruptcy of such a company would therefore lead to a dramatic fall in the employment level unless another organisation were to spring up in its place.

A5.2 External effects

Infrastructures and the services that are provided through them have a particularly important position in the economy, as they constitute crucial underlying services for almost all players in an economy. In principle, therefore, the collapse of an infrastructure company could trigger very significant externalities. An extreme scenario would threaten the existence of numerous companies, including banks.

A5.3 Substitutability

The bankruptcy of an infrastructure company could have a serious impact on the Swiss economy if this company enjoyed a monopoly position in the provision of an important service, either given a situation in which the essential goods and services simply could not be produced (i.e. if no *active* substitute were available), or if the institution in question could not be duplicated with a reasonable level of funding (i.e. if no *passive* substitute were available). Indeed, there is evidence in a number of infrastructure systems of monopolistic bottlenecks that are not so easily substitutable. The disappearance of an infrastructure company that controlled such a network could potentially trigger very high economic costs. For example, if the electricity transmission network of Swissgrid were to

[73] Total net income from operating services.

cease functioning, this would entail an interruption in the manufacturing of countless goods. In an extreme scenario, this would threaten the existence of many other companies.

Below we summarise in brief the degree of substitutability of the most important infrastructure networks:

Non-substitutable or barely substitutable infrastructure networks:

- Electricity transmission network of Swissgrid AG
- Regional power distribution networks
- Gas transmission network of Transitgas AG
- Regional gas distribution networks

Infrastructure networks that are only partly substitutable:

- Telecommunication networks of Swisscom AG[74] [75]
- Rail transport networks[76]

Infrastructure networks that are essentially substitutable from a technical standpoint:

- Distribution and post office networks of Swiss Post[77]
- Infrastructure of national airports[78]
- Air traffic network of Swiss International Air Lines[79]

[74] In the area of voice telephony, there are a number of comprehensive alternative networks among the providers of mobile telephony. However, their capacity would not suffice for the comprehensive supply of the bandwidth envisaged for data transfer in the basic supply licence.

[75] Swisscom continues to operate the lion's share of the telecommunication and broadcasting infrastructure, as well as the installations that are essential for the provision of information and communication in extraordinary situations. Even today there is a certain amount of crossover between Swisscom and the Federal Department of Defence, Civil Protection and Sport (DDPS) in the form of shared use of physical infrastructures, for example cable ducts and jointly constructed building complexes. The Federal Council has obliged suppliers entrusted with the provision of remote services in extraordinary positions to ensure that the required preparatory measures are taken with respect to the necessary infrastructure and that this infrastructure can be operated independently and within Switzerland (cf. Article 90 et seq. of the Ordinance on Telecommunications Services).

[76] In this context, it is interesting that a special ordinance was created for railways and shipping companies in 1917 (SR 742.211), as the issue of systemic importance was clearly appreciated back then. The Federal Supreme Court is responsible for the processing of such insolvencies and must ensure that the operations of the company are not interrupted.

[77] From a technical standpoint, the distribution and post office networks of Swiss Post are essentially substitutable. Alternative providers would be able to supply the corresponding services with the necessary personnel after a transition period as long as the residual monopoly of Swiss Post were rescinded – as envisaged in the dispatch on reform of the Post Services Act. However, it would scarcely be possible for the basic supply level required today to be achieved by alternative providers alone in the short to medium term.

[78] The extent to which the services of Zurich Airport could be seamlessly transferred to other airports should be reviewed. However, it is quite normal for national airports to be forced to cease operations for weather-related reasons and for their services to be transferred to other airports accordingly.

[79] Substitutability exists in the form of foreign companies.

A5.4 Continuation alternatives

Even in the case of monopolistic networks whose systemic importance is not open to question and which cannot be substituted by a competitor, the danger of both a short-term and a long-term outage of supply is essentially kept within limits. In contrast to banks, there is no risk of a run on infrastructure companies. By the same token, write-downs of an insolvency-threatening nature on the current assets of infrastructure companies are likely to be few and far between. Due to the high proportion of fixed assets and the typically very low variable costs, a rescue company can normally keep the enterprise going and ensure provision of its services with comparatively few problems. If this process of transition to a rescue company tasked with continuing the systemically important functions proves successful, the originally affected company can then go bankrupt without any serious wider economic consequences arising as a result.

If the insolvency of an infrastructure company does nevertheless come about, the important thing is to carry on the systemically important functions with sufficient promptness. This should be achieved in particular by prioritising the continuation of salary payments, so that the personnel of the company can continue the maintenance and operation of systemically important functions once bankruptcy proceedings start. The legal basis for the continuation of a company is essentially set out in the current Debt Collection and Bankruptcy Act (DCBA[80]), whereby a judge may grant the borrower a period of administration for four to six months and appoint an administrator (Article 295 of the DCBA). Under the supervision of this administrator, the borrower can then in principle continue its operating activity (Article 298 of the DCBA). In the short term, the company in administration can continue to function as an operating company, i.e. as a company that leases the assets of the business without having ownership rights to them. In the medium term, there is then the option – albeit covered by legislation only to a rudimentary degree – of transferring the continuation-worthy part of an operation to a newly founded company or to an already existing company, i.e. the rescue company.

A financial backer will often have to be prepared to finance the continued operational activity. Due to the substantial proportion of fixed assets as a proportion of infrastructure company assets, however, the remuneration paid for the use of the monopoly service (e.g. in the form of regulated transmission tariffs) typically contains a substantial component that is channelled into the preservation and renewal of facilities. This expenditure can temporarily be suspended (or, in the case of an independent operating company, booked to the insolvent company rather than to this operating company). It is then very probable that the income from the operating business will cover the costs of that business, meaning that an operating company could carry on the business in normal situations with relatively few problems.

The picture becomes more complicated when a rescue company is founded, i.e. if fixed assets are to be transferred to a new company. As the balance sheets of infrastructure companies are relatively small compared to banks, however, there are usually plenty of potential purchasers on hand. Questions may arise here in the sphere of public law, such as the transfer of concession rights, the rescinding of minimum holding rates on the part of the public sector, and the issue of cartel law, but these are unlikely to be questions that need such urgent resolution.

To ensure the security of supply in the long run, the continuation of the systemically important functions must generate an appropriate return. The regulation of infrastructure industries should therefore be designed in such a way that the commercially profitable operation of the systemically important part is possible independently of other parts of the company that may be subject to substantial losses, and that the network infrastructure can also be reasonably maintained and expanded. If this prerequisite can be fulfilled, the assumption of operations by other market participants – with subsidiary participation of the state at most – is probable.

[80] Debt Collection and Bankruptcy Act (DCBA; SR 281.1) of 11 April 1889.

This latter aspect needs to be borne in mind when the basic supply obligations are defined. The more comprehensive these basic supply obligations are, the more difficult it will be to ensure that operations can cover costs, hence the more difficult it will be to find willing potential investors at a crucial moment.

A5.5 Conclusion

Large infrastructure companies typically rank among an economy's most important companies. In the event of an outage of the services they supply, the repercussions for the economy would potentially be very negative. Due to the relatively simple continuation of operations by an operating/rescue company in the event of bankruptcy, the systemically important functions can usually be detached and the supply substituted accordingly. However, the guidelines of the concession should be structured in such a way that facilitates the rapid takeover of supply operations by an operating company.

A6 Evaluation of the reviewed measures in the light of economic criteria

A6.1 Object of the evaluation

The measures presented in sections 3.3 to 3.6 are evaluated in this section in the light of the assessment criteria presented in section 3.2. For the sake of simplification, these criteria are summarised as follows:

(C1) Risk limitation

(C2) Simplified resolution and restructuring of systemically important banks

(C3) Functioning and efficiency of the financial system

(C4) Competitive neutrality

(C5) Simplicity

(C6) Non-fiscal objectives

A6.2 Evaluation of the core measures

(1) Capital core measure, incl. creation of convertible capital

C1: The measure is clearly expedient with respect to the criterion of risk limitation. The measure sets effective incentives for the containment of risk and thereby results in a limitation of the probability of insolvencies, as well as a reduction in systemic risk and the resulting losses. In addition to the general cost effect, which contributes to scale limitation (and therefore to containment of the TBTF problem), it is above all the liability effect, i.e. the presence of greater risk capital, which restricts risk appetite: the lower the proportion of risk capital, the greater the incentive for the owners to assume high risks, and in particular to seek salvation through the assumption of excessive risks (gambling for resurrection) when faced with an unfavourable situation (threat of insolvency). In this respect, the requirement to hold more risk capital is a natural correction of the misplaced incentives that arise when an institution has become TBTF. Further capital available for the absorption of losses also has a directly stabilising effect.

C2: The measure is first and foremost of a preventive nature and works via C1. However, due in particular to the existence of convertible capital (CoCos), it also makes an effective contribution to making any crisis situation that arises easier to manage. In any case, the existence of additional capital also makes it easier to survive externally provoked market turbulence. In this respect too, criterion C2 is effectively fulfilled.

C3: Essentially, the measure is wholly consistent with the requirement for efficiency and functioning of the financial system, as the misplaced incentives (external effects) that exist under the status quo should be corrected. It goes without saying that the problem of how to undertake such an evaluation appropriately should not be underestimated, and there is a real danger of both overshooting and undershooting the right mark. It is likely to be difficult (if not impossible) to arrive at a theoretically correct assessment *ex ante*, making a certain degree of trial and error inevitable. Another key question here is what weighting this measure will be accorded within the overall

package of measures, i.e. whether the intention is to rely primarily on this measure alone, or whether it is to be strongly supported by other measures with a preventive effect.

Of key importance in this context is the question of risk differentiation in particular and the way this is evaluated – already a central issue in the general requirements under both Basel II and Basel III. Here, the additional capital requirements are generally to be staggered in keeping with the risks posed to system stability (e.g. adequate identification of the risks arising from proprietary trading positions in complex products). A lack of differentiation would implicitly mean the subsidising of risky activities by less risky activities, which would clearly have a counter-productive effect. With respect to C5, however, compromises will be necessary in this area.

It is also possible – as well as fundamentally correct – that certain loans would become more expensive as a result of this measure, and that banking returns would be reduced as a consequence. This should not in itself be seen as an argument against the measure as long as the appropriate correction of external effects is achieved. There could also be a negative impact on the credit volumes supplied by the affected TBTF banks. This need not necessarily apply to the market as a whole, however, as there could be a certain degree of substitution between the TBTF banks and the banks not affected by the special regulations.

C4: Within Switzerland, and in relation to other non-systemically important sectors and providers, the measure (given the right calibration) is wholly consistent with the criterion of competitive neutrality – indeed, the measure actually creates such neutrality (cf. comments under C3). Of course, the question of accurate evaluation arises here too.

Internationally, i.e. in relation to systemically important foreign institutions, the criterion of competitive neutrality requires comparable regulation abroad to be taken into account (capital requirements and their part in the overall foreign regulation package). The extent to which Swiss requirements should be harmonised with foreign requirements in this area, and the degree to which they can (or should) deviate from foreign requirements, depends not only on the type and quality of foreign regulation but also on the special features of the Swiss financial centre and its problems, namely the particularly strong weighting of the TBTBR problem and the particularly strong significance of wealth management. From the point of view of reputation, security may be a competitive advantage that should not be underestimated over the long term. The Swiss banks may well end up with a much stronger international position if an "intelligent" response to the TBTF problem is found.

C5. A theoretically optimum solution from the standpoint of the previous criteria has its limits insofar as it would conflict with the criterion of simplicity. Compromises in this respect are inevitable, not least because too high a degree of complexity in previous regulation systems were frequently seen as an important factor in the negative developments that led to the current financial crisis.

Unnecessary duplication could also arise if tax solutions with incentivising attributes were to be introduced at the same time. For this reason, such solutions should be avoided.

C6. The criterion that the motivation of the measure should not be of a fiscal nature is fulfilled. The impact of capital regulations may be similar to that of a tax, but no direct fiscal revenues are generated for the state. The danger of a conflict of objectives between the motive of revenue generation for the state on the one hand and the motive of incentive-setting on the other – with the latter being the essential point in this debate – is warded off, in contrast to tax solutions.

Evaluating a progressive structuring of the supplementary capital requirements

Insofar as the TBTF problem and the associated risks that it entails are to be viewed as a continuum, the progressive structuring of the special requirements under criteria C1 – C4 is appropriate. The requirements should therefore increase in keeping with the extent of the TBTF

problem and the state of the indicators that assess this problem. When it comes to the criterion of simplicity (C5), clarification is required: conceivable options here include a comparatively simple staggered tariff or the development of a "simple" formula.

Conclusion: The proposed requirements regarding additional capital are consistent with the list of criteria to a considerable extent.

(2) Liquidity core measure

Additional liquidity requirements can be evaluated in a similar way to the additional capital requirements. The issue in both cases revolves around security buffers, which entail costs for the banks and are not held by them to a sufficient extent due to incentive problems (possibility of cost externalisation). However, there are two key differences between the problem of liquidity and that of capital, and it is worth looking at these briefly.

- Liquidity is something that can – in principle – be created to an unlimited extent by a central bank (albeit obviously not without assuming major risks where inflation is concerned). The same is not true of capital (even for the state). The more restrictive the central bank is in the granting of liquidity in emergency situations, and the more credibly it is able to implement a correspondingly restrictive regime, the greater the incentive for the banks to ensure their own supply of liquidity for reasons of prudence. The question therefore arises as to whether (and to what extent) the liquidity management policy pursued by the banks can be influenced through suitable policy measures on the part of the central bank without introducing the element of compulsion. It is beyond dispute that the compulsion to intervene in an emergency situation exists *de facto* where liquidity supply is concerned. It was not least for this reason that central banks were created in almost all nations in the 19th and early 20th centuries. It is also incontestable that the threat of an externalisation of costs and adverse incentives is connected with this aspect.

- The evaluation of the quality of a bank's liquid assets is even more difficult than that of the quality of various forms of capital. Indeed, even the latest crisis showed that seemingly very liquid investments can suddenly become illiquid because their markets completely collapse. This of course reflects uncertainties over the quality and solvency of the corresponding debtors and the collateral backing of the investment in question. In this respect, liquidity cannot be assessed independently of solvency.

Where the individual criteria are concerned:

C1: Fulfilled, argumentation as per capital measure (though the aspect of risk capital/gambling for resurrection does not apply).

C2: Less affected here.

C3: Essentially fulfilled, as per the capital measure. Here too, the question of evaluation is difficult. Dependence on central bank policy (conditions for "lending of the last resort").

C4: Fulfilled as per the capital measure.

C5: Potentially complex: tensions exist with C1 – C4 that make compromises inevitable, as per the capital measure.

C6: At the most an indirect fiscal effect, insofar as demand for central bank money and thus central bank profit ("seigniorage") rises. This is not a key aspect, however. Criterion otherwise fulfilled.

Conclusion: The proposed measures regarding the holding of additional liquidity are consistent with the list of criteria to a considerable extent.

(3) Risk diversification

The scaling down of the current upper limits for receivables due from a single counterparty is aimed at reducing interdependencies within the financial sector. This immediately impacts upon (and is consistent with) criterion C1. The focus here is on the limitation of receivables of small banks due from TBTF banks. In addition, the aim is also to reduce the concentration of TBTF bank receivables due from a single counterparty and the reduction of the total cluster risks, as well as the reduction of operational dependency of other banks on TBTF banks. Criterion C2 is not directly affected. As long as the scaling down of limits is not excessive, there is no reason to see any inconsistency with C3. In the international dimension, C4 can only be evaluated in conjunction with foreign regulations. C5 and C6 pose no problems.

Conclusion: The proposed risk diversification measures are consistent with the list of criteria to a considerable extent.

(4) Measures to ensure the maintenance of systemically important functions

In their direct impact, these measures contribute above all to the fulfilment of the objectives set out under criterion C2, i.e. the ability to deal with unfolding or threatened insolvency cases with the least possible degree of damage. In this respect they are of key significance, both in the case of restructuring and in the case of winding-up/liquidation. A resolution of the TBTF problem requires that the maintenance of systemically important functions is guaranteed in the event of a crisis. This in turn requires these functions to be separable from the bank in question.

However, the measures also contribute indirectly to the fulfilment of criterion C1 by virtue of the fact that they bring about an increasingly causality-based spread of risk between bank shareholders, bank creditors, and the bank management on the one hand and the state and taxpayer on the other, thereby strengthening incentives to behave responsibly and limit risk, as well as improving market discipline.

Criteria C1 and C2 are thus both fulfilled. A prerequisite in both cases is for the measures in question to be both credible and practicable.

C3 and C4: One aspect that should clearly be viewed positively with respect to these criteria is the fundamental principle whereby the onus is first and foremost on systemically important banks to offer forms of organisation that guarantee the separation and maintenance of systemically important functions in the event of insolvency so that the supervisory authorities can order secondary organisational measures if this is not effected credibly and practicably.

Another aspect that should be viewed positively with respect to C3 and C4 is the principle that the bank should be rewarded (in the form of less rigorous capital requirements) if, by taking particularly suitable organisational measures, it strengthens the basis for a seamless separation of these operations in the event of a crisis. Restrictions on the organisational structure of a banking institution represent an intrusion on its entrepreneurial freedom, which – depending on the nature of the provisions in question – may prove burdensome to a greater or lesser degree. Therefore, they should not be implemented needlessly. Certain minimum requirements are essential with respect to C2, however. Above and beyond these minimum requirements, the banks have a freedom of manoeuvre which can be assessed as favourable with regard to criteria C3 and C4.

C5: The organisational measures being proposed to ensure the maintenance of systemically important functions naturally have a significant degree of complexity. However, this should be set against the significance and essential nature of these measures with respect to the guaranteeing of criterion C2.

C6: Fulfilled

Conclusion: The measure is appropriate to a considerable extent and central with respect to the fulfilment of the list of criteria.

A6.3 Evaluation of further potential measures

An array of further measures, each of which has its advocates, was also evaluated by the Commission of Experts. These are only assessed in brief here:

Measures in the area of financial market infrastructure (trading platforms with central counterparties, product standardisation). The developments described here serve to reduce counterparty risk and the threat of contagion effects. Compatibility with the other criteria should be attainable.

Measures in the area of insolvency and restructuring procedures. The measures recommended here to overhaul bank restructuring law – the creation of better prerequisites for the mutual international recognition of national decrees or those aimed at bankruptcy legislation – would make a decisive contribution to fulfilling criterion C2, and indirectly also C1. The ability of the system to function, efficiency and market discipline would all be strengthened. The measure can therefore be assessed as positive with respect to C3 and C4 too. An investigation of the way the corresponding revisions to national legislation are structured would greatly facilitate more precise evaluation.

Remuneration systems. The regulation and design of remuneration systems can influence the risk behaviour of financial institutions and thereby make an important contribution to risk limitation. The measures discussed under this heading are therefore to be assessed positively with respect to criterion C1.

A6.4 Evaluation of measures not pursued further

A number of other measures were assessed as being less appropriate. It was decided not to pursue these further. Tax approaches generally belong in this category; they should nonetheless be reviewed further if they come to the fore as part of an internationally coordinated approach (cf. Appendix A9). The most important of these measures will be briefly evaluated here in the light of the above-mentioned criteria and compared with the proposed core measures. These measures include the following approaches in particular:

- Direct quantitative restrictions on a bank's size (e.g. as measured by size of balance sheet or by market share)
- Dismantling of the large banks
- Tax and insurance solutions
- Narrow banking
- Direct ban on proprietary trading (functional separation of the banking system)
- Holding structure with country companies

(1) Direct quantitative restrictions on size

It is not clear that direct size restrictions contribute effectively to the limitation of the probability of insolvencies and systemic risks. Banks of a given magnitude, for example as measured by the balance sheet size, may have very different risk profiles and levels of interconnectedness. Therefore, this measure is not very targeted where the criterion of risk limitation (C1) is concerned. Quantitative size restrictions could perhaps even prove counterproductive in this respect by creating incentives for a shift from less risky areas to activities higher in risk that promise higher revenues. Either way, there is an absence of incentives that would work in the other direction.

This does not, of course, rule out the possibility that other measures recommended by the Commission of Experts – which are directly geared to risk limitation – may have an indirect effect on the operationally ideal size for a bank if risk-causing activities and size are indeed correlated.

It is also less clear how this measure would help make it easier to deal with unfolding (or threatened) insolvencies (C2). At most, such an effect might be expected if the size restriction were pushed so far that the systemically important activities of the bank were no longer quantitatively significant. However, this would virtually equate to the "dismantling of the large banks" measure (cf. point 2 below).

The measure represents a relatively major and undifferentiated encroachment upon an institution's freedom of manoeuvre. In this respect, where the criterion of a system's ability to function and its efficiency (C3) is concerned, an *a priori* assessment of this measure must be sceptical. It would inevitably affect successful and rapid-growing companies with particular severity. As a result, it could hinder or even rule out establishment of an economically optimal size as well as exploitation of the benefits of national and international diversification. Viewed in this light, the impact on competitive neutrality should also be viewed negatively, from both a national and international viewpoint. Nor is it obvious how the application of this unwieldy measure might effectively correct the competitive distortions currently evident in the status quo.

C5: The measure may in a certain respect appear very straightforward (in both conception and implementation). However, this is the case only if the size in question is established randomly. The issue becomes highly complicated once the question is posed as to precisely what considerations and criteria should underpin the quantitative size restriction. For this reason, the process of introducing such a measure would probably be anything but straightforward – including from a political perspective.

C6: Neutral.

(2) Dismantling the large banks

This measure can also be seen as an extension of the approach discussed above. Its objective would be a banking system in which there were no longer any major players but just a large number of smaller institutions. In a sense, the US banking system of the 1930s through to the 1970s represents a role model here, as this system was characterised by significant limitations regarding the size of banks (above all via individual state regulations concerning unit banking and branch banking), although it was also characterised by a high level of inefficiency. Historical examples from other industries – albeit in these cases driven by the desire to avoid monopolistic behaviour – can also be found in US anti-trust legislation (such as the break-up of Standard Oil Co. in 1911 and AT&T in 1982).

One crucial and difficult question is how far such a splitting-up process should actually go. Breaking up one of the large Swiss banks into two or three units would result in institutions just as large (or indeed larger) than many banks that have been categorised as TBTF in the recent crisis.

By contrast, breaking up a large bank into a much greater number of national and regional entities would be a very different proposition.

Irrespective of this aspect, however, it is highly questionable whether the aims of risk limitation (C1) and simplified resolution would be effectively fulfilled by this measure. A larger number of smaller companies, each of which would appear to pose less of a threat when viewed on a stand-alone basis, would in all probability actually have a high degree of correlation between their respective activities. In the event of a crisis, these companies would pose just as large an overall threat (and therefore equally high bail-out costs) as the original system. History provides us with a pertinent example here in the form of the US savings and loan crisis of the 1980s, which resulted in the simultaneous insolvency of a large number of small but similarly-oriented institutions. One study shows that there is no clear correlation between the average size of a bank within different banking systems on the one hand and the respective bail-out costs suffered during the financial crisis on the other.[81] Moreover, even institutions of relatively small magnitude have time and again been classified by politicians as TBTF (e.g. *Hypo Alpe Adria*, German state banks).

C3: From the viewpoint of a system's ability to function and its efficiency, the measure appears clearly negative for the reasons already set out under point 1, "Direct quantitative restrictions on size".

C4: From the viewpoint of competition, the measure may appear positive at first glance, as it is conducive to a larger number of smaller competitors. However, it is ultimately questionable whether an artificially imposed competitive environment of the type described here can genuinely be viewed as constituting effective and economically desirable competition, or whether it would not actually be more likely to give rise to its own kind of market distortions. The US banking system of the 1930s to the 1970s gives grounds for justifiable scepticism. Although characterised by a large number of relatively small and independent banks, it was also noted for numerous local monopoly situations, little effective competition, and a very weak level of innovation.

C5: More difficult from an implementation standpoint than from a conceptual one.

C6. Neutral.

(3) Tax and insurance solutions[82]

Tax solutions were assessed as being comparatively ill-suited, but they cannot be simply crossed off the list of possible measures, as they enjoy great international popularity, particularly in political circles. It is precisely this political popularity, however, that explains why an undesirable mixture of purposes can easily come about in this area. Where tax solutions are concerned, the threat of revenue-raising motives suddenly coming to the fore – rather than the shaping of incentives and the limitation of the TBTF problem, which is essentially what the Commission of Experts was mandated to achieve – is clear. In such a situation, measures can easily be erroneously evaluated (relative to their actual objectives), thereby also infringing criteria C1, C3 and C4. The fiscal needs of governments are very real and require a solution to be found, but this task should not be combined with the TBTF problem. A current example of a combination of different objectives can be found in the widespread call – notably in Europe – for the imposition of a general financial transaction tax, which in the popular mindset is currently believed to be capable of simultaneously curing the ills of the European Monetary Union (which are primarily attributed to malicious

[81] Dermine, Jean and Dirk Schoenmaker (2010), "In Banking, Is Small Beautiful?", *Financial Markets, Institutions & Instruments*, 19(1), p. 1-19.

[82] A comprehensive treatment of tax and insurance solutions can be found in Appendix A9.

speculation), ensuring the stability of the financial markets, and resolving the TBTF problem. The fact that such a tax is a singularly inappropriate instrument for achieving all these objectives appears to have gone rather unnoticed.

A particularly dangerous threat would appear to be posed here by tax solutions that are combined with the accumulation of an insurance fund. With solutions of this nature, there is a high probability that the contribution payments (tax payments) would be suspended once the fund in question achieved a certain stipulated size, which would in turn remove the tax incentive that constituted the key element in the resolution of the TBTF problem. In addition to C6, C1 would also be compromised. Moreover, such a fund could easily become a coveted object for alternative uses in the absence of any financial market crisis unfolding over a given period (i.e. once the desired end was deemed to have been achieved). By way of comparison, it is worth bearing in mind the discussions surrounding Switzerland's currency reserves and their proposed use under the KOSA initiative.

Criteria C1 – C4 essentially require the shareholders and creditors of banks to pay attention to the security of their investment and thus to fulfil their controlling function appropriately. Insurance solutions run directly counter to this requirement. At most, this would not be the case if insurance premiums were levied for a prolonged period and designed in a risk-weighted way, thereby becoming tangible for a company's ultimate stakeholders. But it would be extremely unlikely that any solution would be designed in this way; contribution payments would in all likelihood be set according to politically uncontroversial ratios and quite possibly with wholly counter-productive incentives. If a tax solution were to be considered, such an eventuality should be avoided at all costs, i.e. the question of allocating the tax burden in a risk-weighted manner (taxation as per the corresponding magnitude of the TBTF phenomenon) should be carefully reviewed.

C5: Tax solutions that simultaneously met criteria C1 – C4 would be highly complex.

(4) Narrow Banking

Narrow banking is understood to mean a severe restriction of banks' business models where the deposit-taking business is concerned, whereby total (or at least very high) matching of maturities is achieved between lending and deposits. The deposits of the bank should be fully covered by liquid, low-risk assets, and in the textbook extreme case 100% with central bank money.

Were this cover to consist of genuinely liquid investments that would be reliable even in a crisis situation as far as their marketability and market valuations were concerned – such as central bank money, for example – the objective of limiting risk and reducing systemic risk really would be achieved. In such a scenario, there would effectively no longer be a rational motive for a run on a bank, while the risk of insolvency would also be largely eliminated given a portfolio of assets that was wholly designed with security in mind. (The adoption of the fundamental concept of narrow banking would also require credit institutions to be financed wholly by equity capital – or at least by contingent convertible debt – so that these banks too would be completely secure and protected against insolvency.)

The problem of this measure with respect to criterion C1 is that it is impossible to avoid the criticism of "overfulfilment", i.e. it involves scaling down risks in an exaggerated manner that would actually be undesirable from an overall economic perspective. The assumption, monitoring and transformation of risks are among the key economic functions fulfilled by the banks. Indeed, fulfilment of these tasks is a key part of their *raison d'être*.

For this reason, it is also evident that this type of intervention would compromise the criterion of ensuring the functioning and efficiency of the financial system (C3). Banks would no longer be able to fulfil one of their most basic economic tasks. Deposits and the associated banking services in

payment transactions would become significantly less attractive for a bank's clients. The credit business would become artificially separated from the deposit business, and either undertaken by separate units of banks or taken over wholly by institutions with no deposit business.

C4: Within the group of banks affected by this measure, there would evidently be no problem from the standpoint of competitive neutrality. In comparison to unaffected institutions (both within Switzerland and abroad), however, the intervention in question would clearly be very severe.

C5 and C6: No problems where these criteria are concerned.

(5) Direct ban on proprietary trading (functional separation of the banking system)

Critics frequently call for a spin-off of some of the activities of commercial banks involved in the deposit business. The criticism tends to focus in particular on proprietary trading activities involving complex products, but sometimes even extends to the entire investment banking franchises of commercial banks. The objective here is the same as in the above-mentioned example of narrow banking: protect the deposit business and payment transaction systems against contamination from the effects and risks of other business areas. In the Anglo-Saxon world, this form of intervention has a long history. Proprietary trading in this respect can be deemed to mean an array of different trading activities, ranging from pure brokerage activities and the execution of trading orders for clients right through to a bank taking medium-term and long-term positions for its own account.

This issue is rather contradictory where criteria C1 and C2 are concerned. The institutions affected by the ban are genuinely relieved of these risks, so in this sense the aim of risk reduction is realised quite effectively. However, the problem is unresolved from a wider economic perspective, insofar as these activities and the resulting risks would simply be transferred to other non-regulated (or little-regulated) institutions and sectors – which would then in their turn become systemically important and require the umbrella of state protection in the event of an emergency. Bear Stearns, Merrill Lynch, Lehman Brothers, AIG and LTCM were all "non-banks" that would have been unaffected by a ban on proprietary trading for banks involved in the deposit business.

If such activities are deemed excessively risky *per se*, they should be penalised as such rather than just shifted elsewhere. Indirect taxation of these activities by means of appropriate capital requirements is therefore a clearly preferable avenue to go down. Accordingly, the problem of risks arising through proprietary trading in complex products is tackled via the capital core measure. An underlying assumption here is that the revision of Basel II will result in an appropriate weighting of the risks relating to proprietary trading in complex products.

The indirect taxation of these activities is also preferable from the viewpoint of criteria C3 and C4. A complete ban on proprietary trading could have a negative impact on market liquidity.

C5: Differentiating proprietary trading from the remainder of securities trading is far from a simplistic matter.

C6: Neutral.

(6) Holding structure with country companies

The main objective of one proposed solution put forward in this debate is the assurance of criterion C2 and therefore also by extension C1. The creation of a holding structure with separate subsidiary companies (e.g. country companies), each with their own capital base and own legal entity, is designed to ensure that ailing parts of a company can be hived off in the event of a crisis. However, the holding organisation would be of no use as long as the parent company were still functioning as a going concern. A legal form of enforced solidarity under banking legislation would then apply throughout the group of banks, i.e. no company of the group could simply be left to collapse. The holding organisation would be relevant only in the case of the parent company going bankrupt and needing to be wound up (company bankruptcy). Even in the case of such a bankruptcy and winding-up, the danger of a *de facto* enforcement of solidarity could of course come in the form of political pressure from foreign authorities. Nonetheless, it is no doubt correct that this form of organisation would prove helpful from the point of view of separability of systemically important corporate functions and the fulfilment of criterion C2. However, even this would apply unreservedly only if there were no financial liabilities between the group companies themselves. Such a requirement would then bring this solution rather close to the above-mentioned proposal of "breaking up the large banks" (point 2), however.

The main problem with this proposal lies in the fact that it represents a very extreme form of intervention to meet the criterion C2, which in turn makes it hardly justifiable with respect to criteria C3 and C4. The measures proposed by the Commission of Experts in 3.6 (ensuring the maintenance of systemically important functions) achieve the same objective but with a significantly reduced degree of intervention. The latter are therefore clearly to be preferred.

C5: The measure would have the benefit of being relatively straightforward.

C6: Neutral.

A7 Commentary on the problem of regulating proprietary trading

A7.1 Introduction

In the ongoing debate on the limitation of the TBTF problem, voices are continually heard calling for a "ban on proprietary trading", although it is often the case that the concept of proprietary trading itself is not precisely defined. For example, a ban on proprietary trading is one of the core requirements of the so-called "Volcker Rule" in the US.

In this report, the term "trading" is defined in more detail in a number of categories. Based on these definitions, the main requirement of the Volcker Rule is then analysed in greater detail and alternatives are discussed.

A7.2 Categories of trading – definition of terms

This paragraph will briefly examine the term "trading" as defined for five different categories ("types") of trading activities ("trading"). The focus here will lie on trading activities in the fixed income[83] area, which is where the majority of bank losses were suffered in the recent financial crisis. The following definitions of terms do not claim to be all-encompassing, but are designed to facilitate an overview of trading activities in the financial sector.

The following five trading categories and the differences between them are examined in more detail:

- Brokerage
- Flow trading
- Professional trading
- Proprietary trading
- Buy-and-hold investments

All the trading activities of Credit Suisse and UBS in the fixed income sphere can be assigned to one of these five categories. In some cases the delineation between categories is hazy (particularly between flow trading and professional trading). Over the next few paragraphs, the individual categories will be described in more detail. An overview is then provided in tabular form to illustrate the differences between individual categories.

Brokerage

Specialised financial services providers who act as pure intermediaries between the buyer and seller of a product are referred to as brokers. The term "broker" may be used to describe both the company and the person acting as intermediary for the trade.

[83] Fixed income encompasses trading in interest-bearing securities, foreign exchange, money market products, credit products, interest rate, currency and credit derivatives, hybrid products, and alternative investment products such as commodities and commodity derivatives.

As a rule, brokers themselves never take risks, but act purely on the account of third parties. Where securities, commodities and foreign currency positions are concerned, brokers may take the product in question onto their books for a "logical second" in order to then immediately sell it on. Buyers and sellers are therefore not counterparties with each other, as they both deal directly with the broker. However, in the case of derivative transactions (and very frequently also for securities, foreign currency positions and commodities) a broker acts only as an intermediary and never as a counterparty. In this case, the buyer and seller are acting as counterparties to one another without engaging in any mutual dialogue.

Flow trading

Flow trading is a term used to describe the very short-term purchase or sale of products on behalf of a client without any intention of holding the product or assuming a risk position. The aim of flow trading is to generate a low-risk return thanks to the realisation of bid-offer spreads. Although positions may be held for longer than one day, the material risks of the position are normally hedged by the end of the trading day at the latest. The aim is to avoid taking any position – even pre-positioning in the expectation of client orders – to the greatest degree possible.

Professional trading

We describe professional trading as a strategy in which – just like flow trading – the trader acts as a market-maker[84] for the client, but without necessarily closing out his position at the end of the trading day. Professional trading involves taking short-term positions onto trading books within certain stipulated parameters. In addition, positions may also be taken that have no direct relation to client business.

An important aspect to be stressed here is that "client business" and "low-risk business" are not synonymous terms.

- A trader may also build up risk positions through client business;
- Trading activities in which positions are closed out at the end of the trading day need not necessarily be associated with high risks.

Proprietary trading

Proprietary trading describes a trading unit which is separate from the rest of an organisation's trading activities and has no involvement in client business. It generates profits exclusively from taking positions. This trading unit has no client contact and is not involved in the broker market.

Buy-and-hold investments

Buy-and-hold investments are the result of a strategy that involves making exclusively long-term investments in order to generate a profit from the retained position in question.

[84] Market-making is understood to mean the provision of liquidity for clients in non-exchange-traded products, whereby a trader sets firm bid-offer quotes and thereby provides liquidity for a specific product or a particular product class. This is designed to avoid temporary imbalances between supply and demand for certain products.

Category		Who?	With whom?	What?	Position-taking?	Holding period / turnover?	Market-making?	Risks?	Income?	Book?
2.1	Brokerage	Specialised broker companies, e.g. Tullet-Prebon, ICAP,GFI Group, Tradition, Cantor-Fitzgerald, BGC Group	Almost exclusively with big and medium-sized banks, very rarely also with smaller banks and insurers	Securities and standardised OTC derivatives, commodities, foreign currencies	No, as transactions are exclusively intermediary trades	None/non-stop; the higher the turnover, the greater the income	No	Occasionally settlement risk with securities/FX/ commodities, no risk with derivatives	Brokerage fee, with the level of the fee typically known to the client	Irrelevant (fee trade)
2.2	Flow trading	Big banks	(1) All types of clients, (2) competitors via brokers, (3) exchanges, (4) internal counterparties, (5) selected areas of competitors, for example proprietary trading desks or possibly areas that offer other products (which are themselves not competitors)	Securities, loans, foreign currencies, commodities, standardised OTC derivatives, all types of structured products	Yes, but very limited and for a very short period of time as part of relatively small risk limits	Very short/ very high; the higher turnover, the greater the income	Yes – with the intention of directly hedging the risk exposure of the position, either with another client, via the broker market, or in another form	Material risks should be hedged at the end of the day, risk limits should be small	Bid-offer, very short-term position-taking (intraday), exploitation of market information, material risks are closed out daily	Trading book
2.3	Professional trading	Big and medium-sized banks			Yes, but only short to medium term as part of risk limits	Short/high; the higher the turnover, the greater the income	Yes – sometimes with the intention of maintaining the risk exposure of the position in the short to medium term	Material risks may remain open for a certain period of time as part of risk limits, comprehensive risk monitoring necessary	Bid-offer, position-taking, exploitation of market information, speculation vis-à-vis client and/or the market, exploitation of arbitrage opportunities	Trading book
2.4	Proprietary trading	Banks, insurers, hedge funds	(1) Desks of categories 2.2 and 2.3 at other banks, (2) internal counterparties, (3) exchanges	Securities, foreign currencies, commodities, derivatives	Yes, exclusively position-taking, medium-term	Medium-term/low; turnover means high bid/offer costs	No	Risks should be taken on with a medium-term view, comprehensive risk monitoring necessary. Material risks must be hedgeable.	Position-taking (speculation) and arbitrage	Trading book
2.5	Buy-and-hold investments	Banks, insurers, funds	(1) Desks of categories 2.2 and 2.3 at other banks, (2) exchanges, (3) brokers (for unwinding of positions only)	Securities, loans, derivatives, commodities, participations, etc.	Yes, exclusively position-taking, longer term	Long/very low; turnover means high bid-offer costs	No	Risks should be taken on with a longer-term view. Material risks do not necessarily have to be hedgeable.	Carry	Banking book

A7.3 Volcker Rule

The Volcker Rule describes a proposal of the former Chairman of the US Federal Reserve, Paul Volcker, to prohibit banks from engaging in speculative trading activities on their own account. In a slightly amended form – and expanded in a number of areas – this set of proposals was also incorporated into the Dodd-Frank Act. The Dodd-Frank Act contains the following four key points:

- **Restrictions on investments in hedge funds and private equity**: Banks may invest a maximum of 3% of their capital (tier 1) in hedge funds and private equity[85]. Client trading and advisory services remain permissible, however.

- **Restriction of proprietary trading**: Pure proprietary trading activities are prohibited. Market-making and position-taking as part of professional trading activities remain permissible, as long as they are in "reasonable" proportion to expected client demand[86].

- **Outsourcing of certain types of business**: Banks are obliged to execute their trading activities involving certain types of derivatives exclusively via special, independently-capitalised subsidiary companies.

- **Central counterparties for trading with OTC derivatives**: Banks are obliged to process certain OTC derivatives via either central counterparties or exchanges. If they do not do this, their capital requirements will rise significantly.

The last two of the above-mentioned points were not part of the original Volcker requirements. By contrast, both the first two points are much less strictly formulated than in the original Volcker Rule.

Criticisms of the Volcker Rule: is a "ban on proprietary trading" sensible?

The first criticism of the implementation of the Volcker Rule within the Dodd-Frank Act is the latter's very woolly and imprecise formulation, which gives rise to very considerable scope for interpretation. If the Volcker Rule were to be implemented, strictly speaking only proprietary trading activities (as defined above) would be affected, as all banks would fall back on the clause that allows position-taking in the expectation of future client demand. Ultimately, of the world's major banks only Goldman Sachs and Morgan Stanley would be affected to a considerable degree, as they are the only market players with substantial proprietary trading units. Although both big Swiss banks do have proprietary trading teams, they are relatively small in relation to the size of the banks themselves.

The second criticism is a direct consequence of the above-mentioned imprecise formulation. It concerns the fact that position-taking (i.e. risk-taking) would still be possible outside of proprietary trading due to the admissibility of professional trading. In actual fact, it was precisely in this area that UBS incurred its greatest losses (and not actually in the proprietary trading unit).

Thirdly, it is simply not the case that client business *per se* is essentially a low-risk business or that position-taking is essentially always associated with huge risks. Ultimately, it always

---

[85] Volcker's original proposal was to prohibit such investments entirely.

[86] This core requirement is also much less rigorous than the original Volcker proposal, which wanted to prohibit all position-taking as part of "essentially any non-customer trading activity".

comes down to how the business in question is managed and how the risk management and controlling processes are designed.

Alternatives to a "ban on proprietary trading"

Alternatives to a "ban on proprietary trading" as per the Volcker Rule are discussed below. These appear a more appropriate way of contributing to the reduction of the TBTF problem.

Risks from trading activities should either be reduced by **appropriate risk management and monitoring systems** or be subject to **higher capital requirements**.

The financial crisis made it quite clear that the **risks of loss attached to trading activity and securitisation** were underpinned by insufficient **capital levels**. For this reason, the Basel Committee has amended the corresponding guidelines. The new guidelines were adopted in the current Capital Adequacy Ordinance (CAO) revision, which was undertaken by a national working group under the leadership of FINMA. Among others, this working group included the SNB, the Federal Department of Finance, the big banks and various banking associations. The guidelines are due to enter into force in Switzerland on 1 January 2011.

Two important **prudential measures** could have a bearing on whether, on the one hand, the banks possess suitable concepts, infrastructure and expertise to fully understand the origin of their income sources and whether, on the other, they are capable of limiting the potential losses caused by position-taking at an early stage. The degree to which these measures have already been taken into account by the big banks is currently being investigated by FINMA.

Banks must continue to have a corresponding **reporting system** that shows the proportion of its overall income accounted for by client business, as well as the proportion of its total income that is accounted for by positions kept open beyond the end of the trading day. The reporting systems in question at the big banks are already inspected on a regular basis by FINMA.

An efficient **supervisory body** must carefully monitor the above-mentioned prudential measures at all times, and must also be capable of apprehending the current risk profile and strategy of the different business areas. Furthermore, just like the staff entrusted with monitoring tasks, the Executive Board and the Board of Directors of the financial market supervisory authority must have sufficient experience to be able to properly evaluate the trading strategies being pursued and the quality of risk monitoring and controlling mechanisms.

Another key task of the supervisory authority is to gain a clear understanding of the bank's income sources and to monitor with particular care the areas that generate the most income. Intensive contact must be cultivated with the bank's management, and any unusual or striking developments must be discussed with the banks.

Finally, an efficient supervisory body must, at regular intervals, ensure that the strategy pursued in the trading areas is in keeping with the remit set down by the Board of Directors and the Executive Board. Moreover, FINMA must regularly establish whether or not the Executive Board and the Board of Directors are sufficiently informed about the implementation of strategic guidelines.

A8 Assessment of potential competition law measures

A functioning system of competition in a free market order requires there to be no impediment or obstacle to a company either entering the market or leaving it. The risk of being expelled from the market forces companies to adjust their behaviour to the latest market events (market sanction mechanism). This market discipline helps to prevent companies from engaging in misconduct.

State interventions to bail out companies have the effect of negating this sanction mechanism and therefore impair the coordination function of competition. Indeed, a state guarantee for TBTF companies is associated with far-reaching competition problems:

- **Moral hazard**: If a company knows that the state will not allow it to go bankrupt under any circumstances (implicit state guarantee), it will lack any proper incentive to modify its own market behaviour. Companies so protected are incentivised to take on business with a higher degree of risk than they would in the absence of a state guarantee, and are therefore no longer fully subject to the discipline of the market.[87]

- **Distortion of competition:** Explicit or implicit state guarantees give the companies receiving such support advantages over their competitors, which can have the effect of distorting competition. These advantages can lead to the companies in question being given a better credit rating by the market and thus being able to refinance themselves in the market on better terms than their competitors (cf. 3.2.1 on the capital core measure).

A resolution of the TBTF problem is therefore also necessary from a competition policy perspective. It accordingly makes sense to seek solutions via the path of competition law, particularly as free competition enjoys constitutional protection through the cartel article[88] as well as being covered by the principal of economic freedom.[89]

At first glance at least, the Cartel Act with its merger control provisions could be seen to offer a possible avenue of approach in this context: These provisions are designed to prevent companies from obtaining or strengthening a market-dominant position[90] through external growth and eliminating effective competition as a result.[91] The attribute of a market-dominant position used in the merger control provisions has a close correlation with the TBTF problem, and indeed with the definition criteria for the TBTF concept. Both phenomena revolve around

---

87 Cf. Freixas, X. / Rochet, J. (1997), "Microeconomics of Banking", The MIT Press, Cambridge, Massachusetts, p. 286 and Mishkin, F. S. (2001), "The Economics of Money, Banking, and Financial Markets", Sixth Edition, Addison-Wesley World Student Series, Boston, San Francisco, p. 279 et seq.

88 Article 96 of the Federal Constitution.

89 Article 94 of the Federal Constitution (Cst; SR 101). See in particular paragraph 4 of this provision, whereby deviations from the principle of economic freedom, particularly those measures that run counter to competition, are permissible only if they are envisaged in the Federal Constitution or enshrined in historic cantonal rights (*Regalrechte*).

90 Article 4 para. 2 of the Cartel Act (CartA; SR 251) contains a legal definition of the concept of a market-dominant position, whereby one or more companies are deemed market-dominant if they are "able, as suppliers or consumers, to behave to an appreciable extent independently of the other participants (competitors, suppliers or consumers) in the market". This provision is above all of significance in conjunction with Article 7 of the Cartel Act (abuse of a market-dominant position).

91 Article 10 para. 1 of the Cartel Act. See also dispatch of 23 November 1994 on a Federal Act on Cartels and Other Restraints of Competition (Cartel Act, CartA), in: Federal Gazette 1995 I 583 et seq. (dispatch 1995).

a leading position within a market, the level of concentration and the lack of substitutability (cf. 2.1 on the definition of TBTF).

Despite this similarity with the TBTF problem, the possibilities of the Cartel Act contributing to a solution are limited. The merger control provisions touch only on the issue of external company growth, and the creation or strengthening of a market-dominant position does not itself constitute sufficient grounds for an intervention by the competition authority. What is required instead is a situation whereby the merged company is additionally in a position to eliminate the competition as a result of its market-dominant position. When evaluating whether any competition has been eliminated, the competition authority typically takes into account a number of additional parameters that go beyond the TBTF criteria of market position, degree of concentration and substitutability, namely the position of market competitors, access to purchase and sales markets, development of supply and demand, the position of companies in the international competitive framework, etc.

By contrast, according to the TBTF definition, companies can also become systemically important through internal growth. Furthermore, the act of eliminating competition is not a prerequisite for the TBTF definition to apply. The required degree of market dominance in the sense of the TBTF criteria kicks in earlier in this respect, and is largely dependent on the size of a company's balance sheet as a proportion of GDP. Finally, a material aspect when evaluating the TBTF criteria is whether or not the company in question provides services that are of key significance to an economy. An assessment criterion of this nature is wholly alien to the Cartel Act.

The emergence of a TBTF company cannot therefore be prevented via the *existing* Cartel Act in a targeted way,[92] nor can it be prevented in every case. It should nonetheless be noted that the Federal Council is proposing a change to the merger control provisions as part of the consultation process on the Cartel Act revision opened up on June 30, 2010. One alternative put forward here envisages rescinding the criterion of competition elimination. A second alternative proposes that any merger having a seriously adverse impact on competition could be prohibited or permitted only under certain circumstances and conditions.[93] Both of these alternatives would potentially have a certain impact on the TBTF problem by better countering the dysfunctional concentration that arises through mergers. From an economic perspective, the second alternative looks the more appropriate of the two in this respect.

Solutions specially tailored to the TBTF problem are conceivable, but these would in any case make a further-reaching revision of the Cartel Act necessary. For example, the following three alternatives are conceivable *prima facie* within the context of the merger control provisions:

Introduction of a ministerial ban in Article 11 of the Cartel Act[94]: this would allow the Federal Council to turn down (or forbid *ex officio*) an application for a merger in which the TBTF

---

[92] The concept of a "market-dominant position" used in Article 10 para. 1 of the Cartel Act contains a qualified form of the legal definition of Article 4 para. 2 of the CartA. This stipulates that an intervention by the authorities is possible only "if a corporate merger changes the market in such a way that effective competition can be eliminated on structural grounds alone" (REKO/WEF, RPW 2006/2, 320 E. 5.1 – Swissgrid; confirmed in BGE 133 II 104, E. 6.3., RPW 2007/2, 327 et seq. – Federal Competition Commission against Aare-Tessin AG für Elektrizität (Atel) et al.).

[93] Cf. the proposed alternatives in: Explanatory Report of the Federal Council on the change of the Federal Act on Cartels and other Restraints of Competition (Cartel Act; CartA), p. 31 et seq., published on http://www.admin.ch/ch/d/gg/pc/pendent.html

[94] The current version of Article 11 of the Cartel Act contains a "ministerial approval": "A concentration of undertakings that has been prohibited in accordance with Article 10 may be authorised by the Federal Council at the request of the undertakings involved if, in exceptional cases, it is necessary for compelling public interest reasons".

criteria were fulfilled if the material prerequisites for an intervention on the part of the competition authority were not in place.

Extension of the authority of FINMA in Article 10 para. 3 of the Cartel Act: this would enable FINMA to step in during a merger process and where necessary forbid such a merger if it were deemed likely to give rise to a TBTF company.[95]

Extension of the powers of the competition authority in Article 10 of the Cartel Act: introduction of a separate provision enabling the Swiss Competition Commission to evaluate a merger on the basis of the TBTF criteria.

However, the potential solutions set out above should not conceal the fact that the Cartel Act is primarily designed to protect a system of effective competition. The public interest that lies behind this rationale differs fundamentally from an interest in preventing the emergence of TBTF companies. While the Cartel Act with its merger control provisions has an impact on the relationship between companies in the interests of effective competition, a size restriction on companies to prevent the TBTF problem directly relates to the relationship between companies and the state. All three alternatives would involve the introduction of a foreign element into the Cartel Act given the additional evaluation criteria that they would entail. Even the newly designed symmetrical ministerial exception of the first alternative would be highly problematic. Added to this is the fact that the scope of Cartel Act is much more wide-ranging, and encompasses all sectors of the economy. Accordingly, the Cartel Act does not in principle contain any sector-specific provisions.[96]

By contrast, the TBTF problem appears solely in the financial sector and indeed in the opinion of the Commission of Experts only in the banking sphere. Given the criteria that have been defined, there are currently only two financial institutions that can be designated TBTF companies. In view of this circumstance, specific sector regulation is to be preferred to a general Cartel Act solution. This would also fit with the regulatory principle that every politico-economic goal requires an independent instrument.

The core measures and other measures currently envisaged to resolve the TBTF problem within the framework of financial market regulation are targeted and sufficient. On the one hand, they have a preventive effect insofar as they reduce the probability of default on the part of a systemically important financial institution. On the other hand, organisational measures should ensure that a bank is capable of overcoming a crisis through its own strength or through recourse to a sovereign act of the supervisory authorities. At the same time, these measures should ensure that the continuation of systemically important functions and an orderly resolution (where necessary) remain possible, and that a large group does not have to be bailed out as a whole.

The envisaged measures thus also allow for the competition-related problems set out at the beginning of this section (moral hazard, distortion of competition) to be addressed to a considerable degree. The incorporation of any additional and essentially alien measures in the merger control provisions of the Cartel Act – such as the introduction of special TBTF evaluation criteria, or even the possibility of size restriction – thereby becomes superfluous.

---

[95] Article 10 para. 3 of the Cartel Act reads as follows: "If a concentration of banks within the meaning of the Banking Act is deemed necessary by the Swiss Financial Market Supervisory Authority (FINMA) for reasons related to creditor protection, the interests of creditors may be given priority. In these cases, FINMA shall take the place of the Competition Commission, which it shall invite to submit an opinion."

[96] Only Article 10 para. 3 of the Cartel Act contains a sector-specific provision, referring to the interests of creditors in connection with the mergers of banks.

A9 Assessment of the suitability of a financial sector tax to reduce systemic risks in the financial sector

A9.1 Background situation and objectives

The financial and economic crisis has triggered huge problems in government budgets in many countries. This has in turn led to an international drive to examine taxes that can generate new revenues while at the same time increasing the stability of the financial sector. At a meeting of state and government heads of the G20 in Pittsburgh in September 2009, the International Monetary Fund (IMF) was entrusted with the task of producing a report that would show ways in which the financial sector might cover the cost of state interventions. This report, which was submitted to the G20 in June 2010, has followed the lead of work undertaken by the FSB to examine the ways of managing the risks posed by systemically important financial institutions.

This paper provides a brief overview of the initiatives launched at international level and examines the various different aspects of a financial sector tax solely from the viewpoint of the latter's suitability in reducing risks in the financial sector, i.e. tackling the TBTF problem posed by individual financial institutions. It therefore explores further the evaluation set out in Appendix A6.4 with a view to taking account of the issue of financial sector taxation which is currently at the forefront of public debate.

The question of introducing a financial sector tax to compensate for taxpayer monies spent on previous support measures does not arise in Switzerland, as the recent financial crisis did not result in the Confederation incurring any directly assignable costs as a result of its crisis involvement with the financial sector. This aside, the risks assumed by the taxpayer were nonetheless substantial. Furthermore, only when the StabFund of the SNB is finally wound up will it ultimately be possible to establish the costs that are directly attributable.

A9.2 Fundamental concepts

According to the IMF, any levies established should pursue three objectives when it comes to tackling future crises. On the one hand, it should be ensured that the financial sector fully reimburses any costs incurred by state interventions. The difficult financial situation of many countries increases the incentive to generate additional revenues. On the other hand, both the probability and the likely cost of future crises should be reduced.[97] The different approaches being discussed at international level reveal significant conceptual differences.

On the revenue side, the IMF categorises the kinds of charges that can be imposed on financial institutions as follows:

Taxes on financial transactions (hereinafter **transaction taxes**),

Direct bank charges to be imposed on the basis of an institution's systemic importance (hereinafter **bank levies**) and

[97] Furthermore, financial sector taxes can also be geared to compensating fiscal costs which have already been incurred, such as the Financial Crisis Responsibility Fee, for example. Tax arguments of this nature which are motivated by past costs incurred are not investigated further, as they fail to address the TBTF problem itself.

Financial activity taxes based on a financial institution's profits and/or its staff remuneration, which essentially constitute additional taxes on profitability (hereinafter **financial activity taxes**).

The contribution of levies and taxes to a containment of the TBTF problem must be evaluated on the basis of their incentivising impact, i.e. their suitability as tools for limiting the risks of systemically important financial institutions.

On the expenditure side, the tax revenues generated can be allocated either directly into general **government budgets** or to a **stability fund** that can be used to help wind up financial institutions that have ended up in a dire predicament.[98] Also conceivable – as put forward by the IMF – are hybrid forms whereby not only is a fund accumulated but monies are also channelled into government budgets, the latter being justified on the basis of the commitment fees that would apply to any government credit lines provided in the event of a crisis, should an established fund be insufficient to meet this crisis.

The evaluation of options on the expenditure side with respect to the containment of the TBTF problem must be undertaken with an eye on the simplification of the resolution and restructuring of financial institutions on the one hand, and the protection of public finances against the risk posed by systemically important financial institutions on the other.

A9.3 Overview of international developments

In various countries, initiatives have been launched that differ considerably in terms of their goals, tax subject, tax object, and proposed deployment of revenues accumulated. The general impression gained, however, is that the consolidation of government finances is the main aim of a large number of these projects.

In January 2010, the Obama Administration proposed a Financial Crisis Responsibility Fee. The aim of this initiative is to impose special levies or taxes on financial institutions with a view to clawing back the expenditure of the US TARP support program. The basis for measuring this tax is the risk-weighted assets of an institution minus its core capital and insured deposits. In addition, the Dodd-Frank Act[99] was signed by President Obama on 21 July 2010. The FDIC deposit insurance can now be used to ensure that financial market participants reimburse the costs of winding up a systemically important institution retrospectively.

The EU heads of state and government agreed on 17 June 2010 to introduce a system of levies and taxes for financial institutions. Opinions differ as to how such a system should be designed. The financial transaction tax preferred by Germany and France is meeting with resistance from the UK, whereas Italy and the Czech Republic are against the imposition of a charge on banks. The idea is for the revenues to be channelled into a stability fund. In the event of a crisis, this fund should be used not so much for bailout purposes as for the orderly winding-up ("resolution") of the institution(s) in crisis. Given the support of the large EU countries – which are for their part examining further tax alternatives[100] – an implementation of the corresponding measures within the EU is to be expected.

---

98 Another conceivable option would be direct repayment to the taxpayer.

99 Dodd-Frank Wall Street Reform and Consumer Protection Act

100 On 22 June 2010, the United Kingdom announced the introduction of a bank levy which would be used to shore up government finances.

However, there are also a number of countries, including Canada, Japan and Australia, the financial centres of Hong Kong and Singapore, and several leading emerging nations such as Brazil and India, which are adopting a hostile stance to the introduction of a financial sector tax. As a result of these very divergent opinions, the attempt by the G20 to introduce an internationally coordinated financial sector tax has failed for the time being.

A9.4 Assessment from the viewpoint of economic stability

The assessment of the different revenue-side and expenditure-side tax concepts in terms of their suitability for reducing systemic risks in the financial sector is undertaken according to the following criteria:[101]

- Suitability for limiting systemic risks
- Preservation of a financial system's efficiency and ability to function
- Competitive neutrality, simplicity and non-fiscal objectives

The first criterion evaluates the effectiveness of measures to contain the TBTF problem, while the other two criteria evaluate the side-effects of these measures.

Revenue-side measures

A **financial transaction tax** with a standardised tax rate has only a limited incentivising impact when it comes to containing the TBTF problem. As the yardstick for measuring a transaction tax (e.g. the volume of a transaction in securities or currency trading) has no direct connection with the contribution a financial institution makes to the systemic risk of its financial system, such a tax hardly creates incentives for the lowering of systemic risk. By contrast, a risk-adjusted implementation of this concept with higher tax rates for higher risks would be extremely complex, both in terms of its implementation and with respect to gauging the potential repercussions, and would thus contradict the criterion of simplicity. As a transaction tax leads to higher transaction costs and therefore a significant reduction in margins, it could additionally lead to a significant reduction in market liquidity. It is reasonable to assume that the efficiency of the market segments in question would be impaired. Moreover, any introduction of such a tax that was not internationally coordinated would lead to a substantial shift of business into unregulated markets. Furthermore, the rationale behind taxing activities that may under certain circumstances bear no relation to systemic importance is economically questionable. International debate shows that taxes of this nature serve primarily to generate additional government revenues (such as Swiss stamp duty, for example). The dominance of fiscal objectives in the creation of transaction taxes threatens to push aspects of economic stability into the background.

Direct **bank levies** may have an incentivising effect by virtue of the different treatment of balance sheet positions in the context of risk weighting, as they may increase the relative costs of debt capital, for example. In this sense, they set incentives for the institutions so affected to design their business models in a certain way. When it comes to stability-related considerations, however, it has to be borne in mind that such taxes or levies initially lead to a weakening of the income situation of the affected institutions. In the short term, this will be to the detriment of their capital base, which in turn will have a negative impact on the stability of the institution and – in the case of systemically important banks at least – a negative impact

[101] These criteria correspond to the economic criteria for the evaluation of measures relating to the TBTF problem as per 3.2 of this report.

on the stability of the financial system as a whole. In the medium to long term, by contrast, an incentive to achieve higher capital ratios might be established. However, bank levies also have the attribute of an insurance policy against bankruptcy: the counterparties of the financial institutions in question might well assume – on the basis of the levy being imposed – that at least some of their receivables would be covered by third parties (or by the public sector) in the event of a crisis.[102] This would cement the notion of a state guarantee and increase the incentive to take on excessive risks (moral hazard). Such an approach runs counter to free market principles. Companies that are insured against bankruptcy have less incentive to manage themselves efficiently and sustainably.[103] This side-effect could be avoided only if it were possible to show (credibly) that the bank levy in question only had a positively incentivising function and implied no claim to support of any nature.[104]

The yardsticks for measuring **financial activity taxes** are the profits or the wage bills of financial institutions. These taxes neither relate directly to the contribution of an institution to systemic risk, nor facilitate the resolution of systemically important institutions. At best, they have a modest indirect effect (albeit not one that could be easily proved to be positively incentivising), as they act as a kind of negative incentive to generate high profits and pay out high levels of compensation. More likely in reality, however, is that they would actually have a negative incentivising impact, as in a free market competition it is the earnings after taxes that act as the yardstick for the success of a company, while net remuneration and purchasing power play a significant role in determining the appeal of a company as an employer. As a rule, this actually leads to an increase in the risks assumed and the gross compensation paid.

Finally, it should be noted that any tax or levy has a negative effect on capital, at least in the short term, and thereby reduces the stability buffer of an institution. Overall, therefore, fiscal measures look ill-suited to bringing about a sustainable reduction of the TBTF problem in the financial sector.

Expenditure-side options

In contrast to more rigorous capital adequacy guidelines, tax solutions result in the additional capital buffer being held outside the financial institutions in question. If tax revenues flow directly into government finances, these alone constitute the buffer. If the tax revenues are instead channelled into a specially earmarked stability fund, this is what constitutes the additional capital buffer. External capital buffers have the disadvantage that they resemble an insurance fund with "joint and several liability", and therefore lead to an increase in moral hazard. Specifically, this gives rise to incentives to take on risks, with the consequences of these risks having to be borne by all other financial institutions in the event of an institution's insolvency.

Additional revenues from the financial sector that flow directly into **government finances** do not specifically address the TBTF problem. In addition, when such tax revenues are designed on the basis of an overwhelmingly fiscal interest, there is an increased risk of

---

[102] Such a tax or levy is comparable with deposit insurance. The circle of beneficiaries of such an insurance solution would be extended to all creditors and investors of the institution, however, and would not just be restricted to the depositors who may (under certain circumstances) be particularly deserving of protection.

[103] The assumption of excessive risks could be avoided through the use of risk-commensurate premiums. Transparent and simple calculation models for such a tax or levy are virtually non-existent, however, particularly as banks are active in a market with pronounced information asymmetries. The calculation models currently under discussion do not allow for a definition of risk-commensurate payment.

[104] An incentivising levy in this sense would not necessarily be harmful. However, the practicalities of implementing such a solution could be problematic. We have already seen with the CO_2 levy how an economically efficient system of reimbursement was substituted by partial appropriation.

distorted calibration. While the nature of the expenditure is essentially independent of the form of tax selected, the IMF in practice recommends a financial activity tax, the revenues of which are allowed to flow into general government finances. The main argument in favour of this tax, namely that it represents a replacement for the absence of value added tax in the financial sector, actually underlines the danger of fiscal objectives outweighing those of economic stability.

Tax revenues that are channelled into a **stability fund** are reserved for the resolution or the reorganisation of financial institutions from the moment they are levied. For such a system to work, the ways in which the fund can be accessed must be fairly precisely determined on an *ex ante* basis. Under certain circumstances, this will increase the level of moral hazard considerably. Any financing via general government finances gives the state substantial room for manoeuvre. In particular, even on an *ex ante* basis it may not be completely evident which funds may be made available to restructure financial institutions, and when this may occur.

The resolution of systemically important financial institutions will remain problematic in the absence of an internationally coordinated insolvency procedure. However, the existence of a stability fund does not directly help to make the resolution of an institution any easier. Moreover, if the organisation does not permit the detachment of its systemically important parts, the financial institution would have to be saved as an integral whole. In this respect, a fund would simply not have sufficient sums at its disposal in the event of a crisis. Taking the costs of the latest financial crisis as a benchmark, for example, it would take decades to build up a sufficiently comprehensive fund at the tax rates currently being discussed. For the foreseeable future, therefore, a stability fund will fall short of the goal of facilitating the resolution and restructuring of systemically important financial institutions for both legislative and financial[105] reasons.

A further drawback is the pro-cyclicality of the fund solution. Its entire *raison d'être* is based on the need to liquidate the underlying assets invested in the capital markets precisely at a time of crisis. This threat hardly exists in the case of financing via general government finances. As such, it must be concluded that, with respect to its stability contribution, a fund solution for the allocation of tax revenues is an inferior one, and that in the current international context such a solution even makes a negative overall contribution.

A9.5 Overall assessment

Despite the international momentum evident in the area of a financial sector tax, no consensus has yet emerged for a globally coordinated solution. By contrast, a coordinated introduction of national financial sector taxes within the EU does look likely. Irrespective of this development, however, it should be remembered that the different financial sector taxes being proposed are often capable of making only a marginal contribution to financial stability. Due to unintended incentives, indeed, they would actually have the potential to undermine other ongoing initiatives aimed at strengthening financial stability. Viewed in this light, the core measures proposed by the Commission of Experts appear significantly more effective (and more efficient) in terms of their contribution to financial stability. In the specific case of a TBTF institution, a financial sector tax under the current prerequisites – with no credible threat of liquidation – even appears counterproductive.

[105] The earlier an intervention to support a financial institution is instigated, the more cost-effective it is. A fund that is insufficiently endowed financially provides an incentive to intervene at an early stage, which as a general rule increases the aspect of moral hazard even further. Banks in a dire predicament would want to be the first to benefit from the limited resources in the insurance pot, and thus rapidly clarify the uncertainty regarding insolvency risk.

Such a tax should potentially be examined if the core measures are not implemented and if the prerequisites for a detachment of systemically important functions are in place. However, the levy should then ideally be designed as an incentivising tax in the most efficient way possible. The Federal Council announced on 28 April 2010 that it would review the option of a financial sector tax if there was evidence of an international framework emerging.

A10 Glossary

Term	Explanation
Adverse incentives	See "moral hazard"
Basel II & Basel III	The term "Basel II" describes an accord (agreement) on the capital requirements reached between the members of the Basel Committee on Banking Supervision (see below). The Basel I Capital Accord was passed in 1988, while Basel II followed in 2004, containing comprehensive additions and changes which became mandatory from 2008 onwards. The changes arising from the experiences of the latest financial market crisis are currently being discussed under term "Basel III".
Basel Committee on Banking Supervision	The Basel Committee on Banking Supervision (BCBS) was set up in 1974 by the central banks and bank supervisory authorities of the leading industrial nations. It has its headquarters in Basel, Switzerland. The Committee, whose membership has since been expanded significantly, pursues the goal of drawing up uniform and globally recognised bank supervision standards and guidelines. These guidelines are not binding under domestic or international law, and merely constitute recommendations that must be implemented in national law in order to become enforceable. See also "Basel II".
Gross domestic product (GDP)	Gross domestic product describes the sum of all products and services of an economy. It is an indicator of a country's economic performance and expresses its economic growth over a period of time.
Burden sharing	Burden sharing is an internationally used term referring to the equalisation of burdens. In this context, it refers to the division “sharing” of the task ("burden") of bailing out an institution between two or more countries.
Business continuity	Continuation of business activity in a crisis situation.
CLS (Continuous Linked Settlement)	Payments system for processing foreign exchange transactions whereby payment and delivery take place simultaneously. Such a system eliminates the problem of payment being made by one side without a counter-payment taking place on the other side (settlement risk).
Common equity	Common equity consists of paid-in capital, disclosed reserves, and retained earnings, and is calculated after the deduction of regulatory adjustments (including goodwill and now deferred tax assets under Basel III). These are deducted as they are not deemed to be of reliable value in a crisis. The definition of common equity under Basel III aims to take into account only the capital that is actually loss-absorbing from a "going concern" standpoint.

Contingent convertible capital (CoCo bonds or CoCos)	Denotes debt capital which may be convertible into equity capital under certain circumstances. Contingent convertible capital is designed to improve the capital situation of a bank in a crisis situation, whereby in economically good times provision is made for access to additional loss-absorbing capital and the conditions for the conversion of debt capital are agreed. When the previously defined circumstances come about (i.e. are triggered), conversion of this capital becomes mandatory. Contingent convertible capital is typically issued in the form of so-called "CoCo bonds", or CoCos for short.
Debt-equity swap	A debt to equity swap often takes place as part of insolvency negotiations. This involves existing debt capital being swapped for equity capital, i.e. the capital provided by the creditor is made available to the company as equity for offsetting losses.
Proprietary trading	In the world of finance, proprietary trading in the narrower sense of the term is understood to mean those financial market activities undertaken by a financial institution for its own account and at its own risk. The aim of such activities is to increase an institution's earnings. In this respect, see also section A7, which looks at the problem of regulating proprietary trading.
Capital base	The volume of financial resources available to the company on an open-ended basis. This capital is liable in its entirety for the covering of losses.
Externality	Non-compensated repercussion of an activity of a market participant for a non-involved market participant. An externality may be deemed either positive or negative depending on whether it results in external benefits or external costs. As the market participant responsible for the externality does not pay (or receive) any compensation, it typically results in a distortion of resource allocation and therefore usually a suboptimal result for the overall economy.
Financial Stability Board (FSB)	The Financial Stability Board (up until April 2009 Financial Stability Forum, FSF) is an international body with the aim of improving financial market stability. The work of the Financial Stability Board on risk issues has attracted greater recognition recently as a result of the financial market crisis.
G20	The world's 20 leading economic nations (key industrialised and emerging countries).
Hybrid instruments	A hybrid capital instrument of a bank is one that contains characteristics of both equity and debt capital. From the investor's standpoint, it represents a debt instrument, while the bank and the regulator ascribe equity capital character to the same instrument. Like ordinary debt capital, in the event of voluntary redemption or liquidation it gives the holder a financial claim to the amount of the nominal value (although the claim is typically subordinated). During the term (technically open-ended, with only the issuer having a redemption option), the investor bears the additional risk that the bank may postpone (or even renounce altogether) interest payments in the event of getting into economic difficulty. Up until now, banks have been able (to a limited degree) to count a proportion of their hybrid capital as tier 1 capital.
Interbank receivables	Receivables due to banks from other banks.

IAIS (International Association of Insurance Supervisors)	The IAIS is made up of the supervisory authorities of some 180 countries. It publishes global insurance principles, standards and guidelines on topics in the sphere of insurance regulation with the aim of promoting stability and the further development of financial markets.
IOSCO (International Organization of Securities Commissions)	The IOSCO was established in 1974 with the aim of promoting uniform cross-border stock market admission and securities trading standards.
IT	Short for information technology, encompassing hardware, software and data processing.
Capital instruments	Measures and products that improve the capital situation of a company, for example reserve capital and conversion capital.
Credit default swaps (CDSs)	Credit derivatives that involve a market participant hedging the default risk of an underlying instrument (for example a loan). As the beneficiary need not own the underlying instrument to benefit from the credit default insurance, credit default swaps are often held for purely speculative purposes.
Credit crunch	Market situation in which the credit supply provided by banks is significantly lower than the credit demand of an economy, with the result that economic output is restricted.
Leverage ratio	A ratio that measures the proportion of equity capital to debt capital (hence also known as the debt-to-equity ratio). In the Swiss context, the term "leverage ratio" also implies the regulatory guidelines stipulating the minimum equity capital that the big Swiss banks must hold in relation to their debt capital.
Macroeconomics	Macroeconomics is the field of economics that deals with the overall economic behaviour of individual sub-areas of the economy as well as the analysis of overall markets and interrelationships. As distinct from microeconomics, which focuses on the behaviour of individual economic entities.
Moral hazard	Denotes a situation in which a market participant pays less attention to its own conduct (particularly where the assumption of risks is concerned) if it can count on another party (e.g. state, central bank, insurer) to bear a share of any losses that arise. These are the circumstances in which adverse incentives start and lead in the wrong direction.
Narrow banking	Banking model that requires the lending and liabilities of a bank to be harmonised from the point of view of maturities. However, the minimisation of interest rate and liquidity risk that this is designed to ensure can also trigger a credit shortage.
Policy mix	Combination of different policy measures to achieve the desired goal (in the world of finance, typically those relating to regulation).
Rating	Ratings serve as a means of classifying the ability of a borrower (e.g. state, company or private individual) to meet their debt payments. They are assigned either by external ratings agencies or by banks themselves as part of an internal process. The rating issued documents the anticipated probability of default of the borrower on a given scale.

Recovery, resolution and resolvability	Recovery describes the stabilisation of a company (or parts of a company) in a crisis by the company itself. Resolution describes a forced restructuring in which measures are taken by the regulator to ward off insolvency. Resolvability describes the possibility of a company as a whole being restructured or broken up. See also 3.1.
Refinancing	The obtaining of funds by a bank, for example from its own clients (via their deposits), via other banks, via central banks, or via specialised institutions (such as Switzerland's "Pfandbriefbank" or mortgage bond bank). The funds so obtained are used by the bank for lending purposes or for investments in other assets (e.g. in securities as part of proprietary trading operations).
Risk management	Encompasses the ascertainment, assessment, monitoring and controlling of risks. The department of a bank responsible for such tasks is frequently itself called "Risk Management".
Sanction mechanism	Describes a disciplining measure. In an intact market mechanism, for example, the market can sanction undesirably risky conduct on the part of the company through a higher risk premium. Sanctioning of harmful behaviour by the state includes taxation, bans and penalties.
Pillar 1 and Pillar 2	In keeping with the capital adequacy guidelines of the Basel Committee and the Swiss Capital Adequacy Ordinance, Pillar 1 describes the minimum capital requirements that apply to all banks for different types of risks (credit, market & operational risks). Other requirements that go beyond these minimum guidelines can be established by the banking regulator in a Pillar 2 approach.
Service level agreement	A service level agreement (SLA) is a contract between a service provider and a client for recurring services. The guaranteed features of the relationship, i.e. the package of services being provided or the applicable response time, are set out precisely in the contract for an agreed standard of quality (service level). It is common for SLAs to be subject to periodic review so that they can be adapted to changed commercial parameters or new client requirements.
Economies of scale and scope, network and diversification effects	Economies of scale, economies of scope, network effects and diversion effects are terms relating to the optimisation of business practice. Whereas networking effects and economies of scale/scope relate primarily to the attainment of cost advantages through the gaining of a certain critical mass, diversification effects are aimed at spreading around or dividing up (cluster) risks so to cushion the negative effects of developments in individual markets/products.
Swiss Solvency Test (SST)	The Swiss Solvency Test is a newly created instrument for examining the solvency of insurance companies through the monitoring of actuarial, market and credit risks. This principle-based and risk-based instrument relies on a holistic balance sheet approach and undertakes valuations based closely on market values. The SST is closely aligned with the principles of Solvency II, a similar project initiated by the EU.
Substitutability	See systemic importance.

Systemic importance, systemic risks, systemic stability, substitutability	Systemic risks are those that ripple out from individual market participants and threaten the stability of the economic system as a whole. Companies which fulfil functions that the system cannot do without – or which fulfil functions that cannot be assumed (i.e. substituted) by other companies – are described as systemically important.
TARP (Troubled Asset Relief Program)	The Troubled Asset Relief Program, with a total value of USD 700 billion, was passed by the US government on 3 October 2008 as a support measure to counter the consequences of the mortgage crisis. The aim was to support the financial sector, the insurer AIG, and the US automotive industry through the purchase of illiquid assets and distressed loans.
TBTF	"Too big to fail", cf. 2.1.
TBTBR	"Too big to be rescued", cf. 2.1.
Tier 1	Under Basel II, the capital of a bank is divided into tiers, in particular Tier 1 and Tier 2, in line with its quality and eligibility in terms of the regulatory capital requirements. Tier 1 denotes the core capital which is immediately available to the bank. This covers paid-in capital, disclosed reserves and retained earnings as well as hybrid capital (intermediate forms consisting of debt and equity capital) which is immediately available to the bank. Under Basel III, a narrower definition of capital is introduced, known as Common Equity Tier 1 (CET1). This is made up of share capital, retained earnings and disclosed reserves. In future, the components of this category will be assessed solely on their ability to absorb losses from a going concern perspective.
Tier 2	Under Basel II, Tier 2 refers to supplementary capital. This capital is subject to call rights. It covers various components. The main focus is on subordinated bonds, undisclosed reserves and other hybrid capital forms. Tier 2 capital has only a limited capacity to absorb losses. As a rule, statutory liability arises only in the event of insolvency. Under Basel III, the calculation of Tier 2 capital is to be restricted, harmonised and simplified. The main criteria are: subordination to the deposits and other liabilities, original term to maturity of at least five years and straight-line depreciation in the five years prior to the maturity date.
Total capital	Describes the aggregated total of Tier 1 and Tier 2 capital.
Treasury	Department within a bank whose principal tasks include ensuring refinancing (q.v.), allocating the funds so acquired optimally within the bank, and ensuring an appropriate level of liquidity. The Treasury also manages interest rate and currency risks.
Trigger	Triggers are predetermined levels which if reached (or breached) result in certain predefined consequences. These typically relate to specific ratios (e.g. debt ratios) or absolute measurements (e.g. equity capital), and in the financial world might involve termination of a credit agreement, for example, if a ratio of the company were to fall below a set level.

UNCITRAL	The "United Nations Commission on International Trade Law" was established by the UN Assembly in 1966 to support international trade through the simplification and harmonisation of trading regulations.
Reserve capital	See 3.1.
Conversion capital	See 3.1.