Deposit Insurance and its Contribution to System Stability

By Dr. iur. Nina Reiser, LL.M., University of Zurich*

Deposit insurance can prevent the threat to system stability caused by a general loss of confidence in the banks' stability and in the safety of the deposits and thereby contribute to the banks' liquidity – especially in times of crisis. Comparing the Swiss approach with the U.S. deposit insurance system and selectively with the EU solution the article scrutinizes the Swiss deposit insurance scheme. First, given the special regulation for systemically important financial institutions and the factual governmental guarantee for systemically important functions such as the deposit business, general deposit insurance affects particularly small and medium banks. Second, explicit governmental guarantee should only be implemented together with risk-based premiums. Third, the Swiss post-funding system should be changed into a hybrid funding system. There have to be clear rules for an investment as secure as possible that also warrants the necessary liquidity. Fourth, the Swiss funding system should become risk-adjusted, although such risk assessment remains imperfect. The government should establish risk assessment guidelines – also considering market-based factors – and monitor the institutions correspondingly. However, the exclusion of an institution from the deposit insurance scheme, simultaneously taking off the coverage of the corresponding deposits, should not be possible. Finally, the immediate disbursement from the institution's liquid assets is welcome because it provides depositors with the necessary liquidity.

Table of Contents

I. Introduction

«After all, there is an element in the readjustment of our financial system more important than currency, more important than gold, and that is the confidence of the people.» These words are part of President *Roosevelt's* national radio address during the bank crisis of 1933 to explain the banking problem.[1] Confidence in banks' stability and in the safety of deposits is an important element of system stability. The U.S. bank crisis was also mainly caused by the loss of confidence. All depositors tried to withdraw their money at the same time. In response to these incidents the Federal Deposit Insurance Corporation (FDIC) was founded as the first federal deposit insurance in the U.S.[2]

* *Nina Reiser* is SNF Postdoc at the Institute of Law at the University of Zurich. The article is based on a speech the author made at the University of Zurich on October 31, 2012 and a paper in connection with the LL.M. program at Harvard Law School, 2012/2013. It is available at <*http://www.rwi.uzh.ch/Pdoc-reiser.html*>.

1 Almost immediately upon taking office President *Franklin D. Roosevelt* declared a four-day «bank holiday» and made a national radio address on Sunday, March 12, 1933, to explain the banking problem, available at <*http://historymatters.gmu.edu/d/5199/*>.

2 Federal Deposit Insurance Corporation, A Brief History of Deposit Insurance in the United States, Washington D.C.,

In light of the financial crisis of 2007–2009 there is a global consensus that more attention must be paid to liquidity requirements, liquidity management and liquidity protection.[3] This is necessary not only for maintaining the stability of individual banks but foremost to protect a national or even international financial system. Certainly, a bank's liquidity problem can have different causes. However, an accelerated withdrawal of bank deposits by unsecured depositors, a so called bank-run, nearly always leads in the end to the collapse of an institution and can cause a national or even international financial crisis. Hence, in the fall of 2008, many countries massively increased their coverage limits for their national deposit insurance schemes as a result of the worldwide banking crises.[4] Due to the pressure of an increasing number of bank failures, these promises were often made without revising the existing deposit schemes themselves as a whole.[5] In addition, the focus remains mainly on deposits and not on other short-term liabilities which might also lead to bank runs and therefore require government insurance.[6]

This paper analyzes the Swiss deposit insurance scheme and its contribution to system stability. Comparing the Swiss approach with the U.S. deposit insurance scheme and selectively with the EU solution is appealing because different solutions to similar problems were created. Since the FDIC was founded well before the Swiss deposit insurance scheme, the U.S. experience is particularly interesting.

The paper proceeds as follows: After outlining the role of deposit insurance in the context of system stability (II.) it examines the Swiss (III.) and the U.S. (IV.) regulations regarding the deposit insurance systems, the resolution of insolvent banks, and special regulations for systemically important financial institutions. It also selectively considers the relevant EU regulation where appropriate to develop propositions for amendments of the Swiss deposit insurance system (V.).

II. Role of Deposit Insurance in the Context of System Stability

Deposit insurance schemes aim at the protection of depositors, the protection of financial institutions from bank runs and the protection of the entire financial system.[7] If there is no insurance, investors are afraid of losing their deposits in case of bank insolvency. Consequently, a large number of depositors withdraw their deposits from a financial institution at the same time. Financial institutions often only hold a fraction of their capital as cash in readiness, and most of their capital is long-term funded. Therefore, as a bank run progresses and more people withdraw their deposits, the likelihood of default increases, thus triggering further withdrawals. This can destabilize the bank to the point where it runs out of cash and thus faces sudden bankruptcy.[8]

One of the banks' main tasks consists in term transformation. On the one hand, banks accept short-

available at <*http://www.fdic.gov/bank/historical/brief/brhist.pdf*>.

3 For an overview of the Financial Crisis see *Gary B. Gorton/Andrew Metrick,* Getting up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide, Journal of Economic Literature, March 2012, vol. 50, at 128 ff.

4 *Beat Bernet/Susanna Walter,* Design, Structure and Implementation of a Modern Deposit Insurance Scheme, SUERF Studies 2009/5, Vienna 2009; *Beat Bernet,* Paradigmenwechsel im Einlegerschutz – Zur Konzeption einer modernen Einlagensicherung, NZZ, October 15, 2008, at 27.

5 *Rolf Sethe*, Einlagensicherung und Systemstabilität – Einige Gedanken zur Reform des Schweizer Einlegerschutzes, SZW 84 (2012), at 507 f.

6 See for the U.S. *Morgan Ricks,* A Regulatory Design for Monetary Stability, in: The Harvard John M. Olin Discussion Paper Series, Discussion Paper No. 706, September 26, 2011; *Gary Gorton/Andrew Metrick,* Securitized Banking and the Run on Repo, Journal of Financial Economics, vol. 104, issue 3, at 425 ff., June 2012, available at <*http://www.sciencedirect.com/science/article/pii/S0304405X1100081X*>.

7 *Sethe* (Fn 5), at 508; *Renate Schwob/Thomas S. Müller,* in: Daniel Bodmer/Beat Kleiner/Benno Lutz (eds.), Kommentar zum Bundesgesetz über die Banken und Sparkassen, Loseblatt (Stand März 2013), Vorbemerkungen zu Art. 37*a*, 37*a*^{bis}, 37*b*, 37*c*, 37*h* und 37*i*, at N 2.

8 See *Robert K. Merton,* The Self-Fulfilling Prophecy, in: Social Theory and Social Structure, rev. and enl. Ed. New York: Free Press of Glencoe, 1957, at 421 ff.; *Bryant* and *Diamond/Dybvig* provide formal models of bank runs arising from self-fulfilling prophecies (*John Bryant,* A Model of Reserves, Bank Runs, and Deposit Insurance, Journal of Banking and Finance 4, at 335 ff.; *Douglas W. Diamond/Philip H. Dybvig,* Bank Runs, Deposit Insurance, and Liquidity, Journal of Political Economy, vol. 91, No. 3, 1983, at 401 ff.). See also *Douglas W. Diamond,* Banks and Liquidity Creation: a Simple Exposition of the Diamond-Dybvig Model, in: Fed Res Bank Richmond Econ Q vol. 93 No. 2, 2007, at 189 ff.; *Sethe* (Fn 5), at 508 and 522. Regarding the resolution of insolvent banks see III.2. (Switzerland) and IV.2. (United States).

term money and incur short-term liabilities, and on the other hand, they lend money in the long term (so called «maturity transformation»). Maturity transformation is in the economy's interest: By providing better risk sharing among people who need to consume at different random times banks issuing demand deposits can improve on a competitive market.[9] Since every bank carries out this task and depositors do not always behave rationally, each bank faces the risk of insolvency caused by bank runs, regardless of whether it was in error or not. For instance, in the Great Depression, when many banks were in trouble at the same time, depositors seemed not to distinguish well between banks which were really insolvent and banks that were able to come through on their own.[10] Because even «healthy» banks can fail, bank runs cause real economic problems.[11]

A system effect occurs when many banks suffer runs at the same time. People then try to convert their threatened deposits into cash or to get out of their domestic banking system altogether. In other words, the system effect consists in a general loss of confidence in the banks' stability and in the safety of the deposits. But if depositors can trust in the refund of their deposits, there is no rational need to hastily withdraw them.[12] Therefore, deposit insurances can prevent such a threat to system stability. Deposit insurance contributes to the banks' liquidity – especially in times of crisis. The U.S., Switzerland, and the EU focus mainly on deposit insurance and not on other deposit-like short term liabilities which, as recent literature shows,[13] also create the risk of bank runs and therefore might require government insurance.[14] However, the paper focuses on the regulation of deposits.

Bank runs or other liquidity problems can also be symptoms of deeper difficulties of banks. This was the case during the last financial crisis.[15] Hence, policy cannot only focus on liquidity. Guarantees such as deposit insurance can only make a partial contribution to system stability but not replace other necessary measures to prevent bank insolvencies such as equity requirements.[16]

III. Switzerland

1. Deposit Insurance System

The Bank Act[17] entered into force in 1935. It normalized estate and bankruptcy proceedings and already provided a limited privilege for deposits in

9 *Diamond/Dybvig* (Fn 8), at 402, *Diamond* (Fn 8) with further references; *Anat Admati/Martin Hellwig,* The Bankers' New Clothes: What's Wrong with Banking and What to Do about It, Princeton University Press, Princeton and Oxford, 2013, at 49 ff., in particular at 51 ff.

10 *Admati/Hellwig* (Fn 9), at 52 with further references.

11 *Diamond/Dybvig* (Fn 8), at 402. If an institution will be solvent if nobody runs and everybody knows that this is the case, a run happens due to coordination failure (*Admati/Hellwig* [Fn 9], at 211 Fn 17). However, according to *Calomiris/Mason* and *Schnabel* even during crises investors tend to difference between institutions according to their strenght (*Charles W. Calomiris/Joseph R. Mason,* Contagion and Bank Failures during the Great Depression: The June 1932 Chicago Banking Panic, American Economic Review, vol. 87, No. 5, 1997, at 863 ff.; *Isabel Schnabel,* The German Twin Crisis of 1931, Journal of Economic History, vol. 64, No. 3, 2004, at 822 ff.). In that case a run can sometimes even be the way to discover a hidden insolvency and trigger corrective action (*Admati/Hellwig* [Fn 9], at 211).

12 *Diamond/Dybvig* (Fn 8), at 403.

13 See e.g. *Morgan Ricks,* Regulating Money Creation after the Crisis, Harvard Business Law Review, vol. 1, 2011, at 75 ff.; *Ricks,* Monetary Stability (Fn 6); *Morgan Ricks,* Reforming the Short-Term Funding Markets, in: The Harvard John M. Olin Discussion Paper Series, Discussion Paper No. 713, May 2012.

14 In 2008, after the bankruptcy of Lehman Brothers and its bad impact on the Reserve Primary Fund (a money market fund which had lent almost USD 800 million to Lehman Brothers), investors in the money market funds, even those not directly affected by the Lehman bankruptcy, interpreted the fates of Lehman Brothers and Reserve Primary as a signal that other investment banks and money market funds might also be at risk. Consequently, many investors abruptly withdrew their money. Only when a few days later the U.S. Treasury offered them a scheme for government-guaranteed deposit insurance, the run on money market funds was stopped (Financial Crisis Commission, The Financial Crisis Inquiry Report, Washington D.C., U.S. Government Printing Office, 2011, at 359; see also *Admati/Hellwig* [Fn 9], at 62 and 66 f.). Regarding the discussion for a stricter regulation of the shadow banking system in the EU and in Switzerland see Geldmarktfonds sollen an die EU-Kandare, NZZ, September 5, 2013, at 23 and Viel Lärm um Schattenbanken, NZZ, September 5, 2013, at 21.

15 See *Admati/Hellwig* (Fn 9), at 212 with further references.

16 *Admati/Hellwig* (Fn 9), at 81 ff. and 217 ff.

17 Bundesgesetz über die Banken und Sparkassen (Bankengesetz, SR 952.0).

case of bankruptcy.[18] After the closing of the Spar- und Leihkasse Thun in 1991, in 2004, stricter rules were enacted for the protection of depositors in case a bank went bankrupt.[19] Hence, in Switzerland, the protection of deposits was triggered by a small bank.[20] In reaction to the financial crises the deposit insurance system was revised again in 2008, first enacted in the form of urgent law, the validity of which was limited to the end of 2010.[21] In parallel, a thorough revision of the deposit insurance system was prepared.[22] Because of the strong criticism during the consultation process,[23] the validity of the 2008 transitional amendments was extended until December 2011[24] while the draft law was revised based on the provisions that were well received. The amended Bank Act entered into force in September 2011.[25]

According to current law, following the bankruptcy of a Swiss Bank, cash deposits up to CHF 100,000 are paid out as soon as possible to each depositor (art. 37*a* para. 1, art. 37*b* para. 1 Bank Act). To determine the amount that will be paid out as soon as possible, the Financial Market Supervisory Authority (FINMA) takes into account the bank's liquid assets and the ranking order of the residual creditors (art. 37*b* para. 1 and 2 Bank Act). These small cash deposits are not subject to the standard liquidation procedure set forth in the Bank Act and the Debt Enforcement and Bankruptcy Act[26] (Art. 37*b* para. 1 Bank Act). In addition, such deposits rank in a privileged class in the bankruptcy estate of a bank (art. 37*a* para. 1 Bank Act). To the extent that these deposits can be paid out from the bank's liquid assets, the payment within the framework of the deposit protection system illustrated below is unnecessary.[27]

To ensure the payment of cash deposits up to CHF 100,000 banks must participate in a deposit protection system (art. 37*h* and 37*a* para. 1 Bank Act).[28] The term «deposits», defined in art. 37*a* Bank Act and in art. 25 of the Ordinance of the Swiss Financial Market Supervisory Authority on the Insolvency of Banks and Securities Dealers (Banking Insolvency Ordinance, BIO-FINMA),[29] includes cash deposits of all currencies and account types.[30] The Bank Act transfers the competence for compliance with the aforesaid rules on deposit protection to the banks' self-regulation,[31] which has to be approved by FINMA (art. 37*h* para. 1 Bank Act).[32] FINMA authorizes self-regulation if the following minimum requirements are met (art. 37*h* para. 3 Bank Act):

- The protected deposits must be paid out within 20 business days after restructuring measures or bankruptcy was ordered. According to the banks' self-regulation, the deposits have to be disbursed within five calendar days since notification of the measures.[33]
- Self-regulation has to guarantee a total amount of CHF six billion. This amount was increased in

18 Deposits up to CHF 5000 were privileged (*Urs Emch/Hugo Renz/Reto Arpagaus,* Das Schweizerische Bankgeschäft, 7th ed., Zürich/Basel/Genf 2011, at N 1461).

19 *Emch/Renz/Arpagaus* (Fn 18), at N 1462.

20 Bankensanierung, Bankenliquidation und Einlegerschutz, Bericht der vom Eidg. Finanzdepartement eingesetzten Expertenkommission, Oktober 2000, at 6; *Thomas Hautle/Raphael Jaeger,* Bankenkonkurs und Einlegersicherung in der Schweiz, AJP 2009, 395 ff., at 396.

21 Botschaft des Bundesrates zur Änderung des Bundesgesetzes über die Banken und Sparkassen vom 5. November 2008, BBl 2008, 8841, at 8853.

22 Proposition for a Bundesgesetz über die Sicherung der Bankeinlagen (Bankeinlagensicherungsgesetz, BesG), available at <*http://www.efd.admin.ch/dokumentation/gesetzgebung/00571/01556/*>. *Inter alia* the introduction of a new two-tier guarantee system was proposed, based on a pre-funded deposit guarantee fund financed by banks' risk-adjusted premiums and a subsidiary governmental guarantee.

23 Bericht des Eidgenössischen Finanzdepartements über die Vernehmlassungsergebnisse zu einem Bundesgesetz über die Sicherung der Bankeinlagen, Februar 2010, available at <*http://www.admin.ch/ch/d/gg/pc/documents/1813/Ergebnis.pdf*>.

24 Botschaft des Bundesrates zur Änderung des Bankengesetzes (Sicherung der Einlagen), May 12, 2010, BBl 2010 3993, at 3995.

25 AS 2011 3919.

26 Bundesgesetz über Schuldbetreibung und Konkurs (SchKG, SR 281.1).

27 BBl 2010 3993 (Fn 24), at 4006.

28 See also <*www.einlagensicherung.ch*>.

29 Verordnung der Eidgenössischen Finanzmarktaufsicht über die Insolvenz von Banken und Effektenhändlern (Bankeninsolvenzverordnung-FINMA, BIV-FINMA), SR 952.05.

30 *Hautle/Jaeger* (Fn 20), at 399.

31 *Hautle/Jaeger* (Fn 20), at 400.

32 The bank's self-regulation was funded in 2005 and has operated under the esisuisse brand since 2012. Information about cases in which esisuisse had to intervene is available in the esisuisse annual report 2012, available at <*http://www.einlagensicherung.ch/en/jahresberichte.htm*>.

33 Art. 5 para. 5 Selbstregulierung, available at <*http://www.einlagensicherung.ch/dokumente/selbstregulierung_v3.htm*>.

reaction to the financial crisis.[34] However, the amount is still post-funded. Although this issue had been discussed, the pre-funding was not approved by the Parliament. This has been highly criticized.[35] In a post-funded or *ex post* funding system, the funds to cover claims are only collected from members when a member institution fails and there is a need to cover deposit claims. In contrast, a pre-funded or *ex ante* funding system involves the advance accumulation and maintenance of a fund to cover deposit insurance claims. The fund consists of premiums collected from the members of the deposit insurance system. A hybrid funding system combines elements of pre- and post-funding.[36]

– Each bank is obliged to hold liquid assets covering at least half of its contribution obligation.[37]

In addition, the banks must permanently hold domestical claims or other assets allocated in Switzerland at an amount of 125 percent of their privileged deposits (art. 37*a* para. 6 Bank Act). The banks' premium for the insurance funds is only based on their privileged deposits.[38] Not considered is the banks' risk. Although this issue had been discussed, the consideration of the banks' risk was not approved by the Parliament, which has likewise been highly criticized.[39]

2. Resolution of Insolvent Banks

As mentioned,[40] following the bankruptcy of a Swiss bank, deposits up to CHF 100,000 are paid out as soon as possible if the bank's liquid assets and the ranking order of the residual creditors so allow. When the bank's liquid assets are not sufficient to pay the depositors, the deposit insurance fund has to cover the difference. However, the insurance fund of CHF six billion is not sufficient to overcome the breakdown of several medium size banks or one of the biggest banks (Credit Suisse and UBS). Nevertheless, there is no explicit governmental insurance according to current law.[41] In the aftermath of the financial crisis the Federal Council proposed to introduce a new two-tier guarantee scheme, based on a deposit guarantee fund financed by the banks and a subsidiary state guarantee.[42] Since this proposition encountered strong criticism during the consultation process,[43] it was abandoned.[44]

The revision of the Bank Act amended also the reorganization proceedings applicable to banks. These changes aim at enhancing the flexibility of such proceedings and confer additional instruments and powers to FINMA in order to increase the likelihood of a successful reorganization.[45] Thereby FINMA is newly empowered to decide on transferring all or part of a failing bank's activities to a *«bridge bank»*[46] and to convert certain convertible debt instruments issued by the bank.[47] In addition, FINMA is authorized to order the reduction or cancellation of the bank's equity capital, and, as *ultima ratio,* the conversion of the bank's debt into equity.[48] Deposits are only excluded from the *«bail-in»* to the extent that they are classified as preferential (art. 49 para. 1 lit. a BIO-FINMA) and are placed last in the order of ranking (art. 49 para. 1 lit. a and d (3) BIO-FINMA).

3. Special Regulation for Systemically Important Financial Institutions

The latest global financial and economic crisis demonstrated that the difficulties of a big bank with

34 BBl 2010 3993 (Fn 24), at 4006.
35 BBl 2008 8841 (Fn 21), at 8853; BBl 2010 3993 (Fn 24), at 4001.
36 See International Association of Deposit Insurers, Research and Guidance Committee, Funding of Deposit Insurance Systems – Guidance Paper, May 6, 2009, available at *<http://www.iadi.org/docs/Funding%20Final%20Guidance%20Paper%206_May_2009.pdf>,* at 2.
37 See *Christoph Winzeler,* in: Basler Kommentar zum Bankengesetz, Basel 2013, art. 37*h*, N 29.
38 BBl 2010 3993 (Fn 24), at 4001. See also art. 5 para. 3 bylaws of Einlagensicherung der Schweizer Banken und Effektenhändler, available at *<http://www.einlagensicherung.ch/statuten_esisuisse.pdf>* and art. 5 para. 2 of Vereinbarung der Schweizer Banken und Effektenhändler über die Einlagensicherung, 2012, available at *<http://www.einlagensicherung.ch/vereinbarung_schweizerbank.pdf>*.
39 BBl 2010 3993 (Fn 24), at 4001.
40 See *supra* III.1.
41 BBl 2010 3993 (Fn 24), at 4001.
42 BBl 2010 3993 (Fn 24), at 4002.
43 Vernehmlassungsergebnisse (Fn 23).
44 BBl 2010 3993 (Fn 24), at 4003 f.
45 FINMA (by *Reto Schildknecht*), New FINMA Banking Insolvency Ordinance – A key element in the effective restructuring and orderly market exit of banks, October 22, 2012, at 2.
46 Art. 30 para. 2 Bank Act and art. 51 f. BIO-FINMA.
47 Art. 31 para. 3 Bank Act and art. 47 ff. BIO-FINMA.
48 FINMA (Fn 45), at 2 f.

systemically important functions can constitute a considerable burden for the economy.[49] To prevent such banks from being *«too big to fail»* and in order for the state not to have to assume any financial risks to save them, a banking regulation reform was initiated to mitigate systemic risks.[50] The following adaptation of the Bank Act entered into force on March 1, 2012.[51] Systemically important financial institutions are defined as banks, financial groups and bank-dominated financial conglomerates whose failure would do considerable harm to the Swiss economy and the Swiss financial system.[52] This requires that the bank carries out a systemically important function. A function is systemically important if it is indispensable for the Swiss economy and – in case of the bank's insolvency – not substitutable in the short term.[53] Systemically important functions are particularly payment transactions, the deposit business and the lending business.[54]

First, a new capital concept was introduced consisting of three capital components:[55]

– At a minimum the basic requirement must be fulfilled in order to comply with the licensing prerequisites for normal business activities.
– The capital buffer allows banks to absorb losses without falling short of the basic requirement and without having to suspend normal business activities.
– Finally, the progressive component ensures that banks with increasing systemic importance are more strongly capitalized, thereby giving them the financial leeway to deal with a crisis by implementing a previously drawn-up emergency plan.

The concept applies the risk-weighted equity ratio (calculated on the basis of Basel III) and the minimum level of equity capital as a proportion of assets *(leverage ratio).* In addition, banks are given incentives to lower these requirements by adjusting their risk.[56] Second, the liquidity requirements shall ensure that even in a crisis, systemically important banks have sufficient liquidity for an adequate amount of time until measures to maintain systemically important bank functions become effective.[57] Third, in the area of risk diversification the main objective consists in reducing the degree of interconnectedness within the banking sector so as to limit the dependence of small and medium banks on systemically important banks.[58] Finally, organizational measures shall ensure the maintenance of systemically important functions (particularly payment transactions, the deposit business and the lending business) in the event of the insolvency of a systemically important bank. At the same time, the remainder of the bank shall be restructured or wound up.[59] Since such organizational measures constitute sub-

49 Botschaft zu einem Massnahmenpaket zur Stärkung des schweizerischen Finanzsystems, BBl 2008 8943, at 8943 f.; *Hans Caspar von der Crone/Lukas Beeler,* Regelung systemrelevanter Banken aus wirtschaftsrechtlicher Sicht – Lösungsansätze zur Too-big-to-fail-Problematik in der Schweiz, ZSR, Band 130 (2011) I, Heft 2, 177 ff., at 177.

50 Schlussbericht der Expertenkommission zur Limitierung von volkswirtschaftlichen Risiken durch Grossunternehmen, September 30, 2010, available at *<http://www.sif.admin.ch/dokumentation/00514/00519/00592/>,* at 10 ff. and 96 ff.; *von der Crone/Beeler* (Fn 49), at 177 ff.

51 The amendments to the Banking Ordinance (BankO, SR 952.02) and the Capital Adequacy Ordinance (CAO, SR 952.03) entered into force on January 1, 2013, except for the capital requirements according to art. 43 CAO which will enter into force on January 1, 2016 (art. 151 para. 2 CAO).

52 So explicitly art. 7 para. 1 Bank Act. See also Schlussbericht der Expertenkommission (Fn 50), at 12 f.; International Monetary Fund/Bank for International Settlements/Financial Stability Board, Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations, Report to the G-20 Finance Ministers and Central Bank Governors, October 2009, available at *<http://www.bis.org/publ/othp07.pdf>,* at 5 ff. and 8 ff.

53 Art. 8 para. 1 Bank Act; Botschaft zur Änderung des Bankengesetzes (Stärkung der Stabilität im Finanzsektor; *too big to fail*) vom 20. April 2011, BBl 2011 4717 ff., at 4745 f.; Schlussbericht der Expertenkommission (Fn 50), at 75 f.

54 Art. 8 para. 1 sentence 2 Bank Act; BBl 2011 4717 (Fn 53), at 4747. See also *Hans Caspar von der Crone/Lukas Beeler*, Die Regulierung von systemrelevanten Finanzinstituten nach schweizerischem Recht, Zeitschrift für Bankrecht und Bankwirtschaft (ZBB) 2012, Heft 1, 12 ff., at 13.

55 Schlussbericht der Expertenkommission (Fn 50), at 25 ff.; BBl 2011 4717 (Fn 53), at 4751 ff.; *von der Crone/Beeler* (Fn 54), at 15 f.

56 Art. 9 para. 2 lit. a Bank Act.

57 Art. 9 para. 2 lit. b Bank Act; Schlussbericht der Expertenkommission (Fn 50), at 35; BBl 2011 4717 (Fn 53), at 4753 ff.

58 Art. 9 para. 2 lit. c Bank Act; Schlussbericht der Expertenkommission (Fn 50), at 36 f.; BBl 2011 4717 (Fn 53), at 4756.

59 Art. 9 para. 2 lit. d Bank Act; Schlussbericht der Expertenkommission (Fn 50), at 37 ff.; BBl 2011 4717 (Fn 53), at 4757 ff.

stantial interventions in economic freedom and the guarantee of ownership, the subsidiary principle should apply. Therefore, each systemically important bank has to organize itself in such a way that the continuation of systemically important functions is guaranteed in the event of a crisis. Only if a bank is unable to demonstrate this accordingly, FINMA orders the necessary organizational measures.[60] Key for the Swiss solution is the combined effect of the measures relating to capital and organization:[61] If a systemically important bank's capital ratio falls below a certain level, the emergency plan is generally triggered. Consequently, the systemically important functions are transferred to a new legal entity within a short space of time. At the same time, the contingent convertible bonds that the bank has to hold as part of the progressive component are converted into common equity. This shall ensure that the emergency plan can be implemented with an adequate capital base.

IV. United States

1. Deposit Insurance System

In the United States, all depository institutions are eligible for federal deposit insurance, either through the FDIC,[62] or through the Federal Credit Union Act.[63] After legislative deliberations by the FDIC, beginning in 1999, the deposit insurance scheme was significantly changed in 2006. The Federal Deposit Insurance Reform Act (Reform Act)[64] and the Federal Deposit Insurance Reform Conforming Amendments Act[65] brought the following principal legislative changes:[66] The Bank Insurance Fund and the Savings Association Insurance Fund merged into the Depository Insurance Fund (DIF).[67] In October 2008, the FDIC increased the level of coverage per depositor from USD 100,000 to USD 250,000.[68] While this increased coverage level was to be in effect until the end of 2009 and then extended until the end of 2013, it was finally made permanent by the Dodd-Frank Wall Street Reform and Consumer Protection Act *(Dodd-Frank Act).*[69]

In principle, the DIF is pre-funded by the assessment of quarterly risk-based contributions on the FDIC member institutions and by the earnings on the total assets managed. The risk of each member is periodically assessed, using different indicators to create four risk categories.[70] Hence, in contrast to the Swiss system the insurance premiums are based not only on the balance of insured deposits but also on the risk the bank poses to the insurance fund. The Reform Act allows the FDIC to define risk broadly. More specifically, the risk-based system is defined on the basis of an institution's probability of causing a loss to the deposit insurance fund due to the composition and concentration of the institution's assets and liabilities, the amount of loss given failure, and

60 Art. 10 Bank Act; BBl 2011 4717 (Fn 53), at 4759 ff.

61 BBl 2011 4717 (Fn 53), at 4758 f.; *von der Crone/Beeler* (Fn 54), at 19 f.

62 12 U.S.C. §§ 1813(c)(1), 1815 (providing for FDIC deposit insurance for «depository institutions,» defined as banks and savings associations).

63 12 U.S.C. §§ 1781–1789 (providing for National Credit Union Association (NCUA) deposit insurance for credit unions), as amended by Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111–203, §§ 335(b), 343(b), 362(2)–(3), 124 Stat. 1376, 1540, 1545, 1549–1550 (2010) (codified at 1785, 1786(g)(7), 1787(k)(1), (k)(5)). See 68 Fed. Reg. 75, 111 (2003) (codified at 12 C.F.R. §§ 745.2(e)–(f), 745.4(c), 745.9-1(c), 745.9-2(a), pt. 745 app.) (simplifying and clarifying NCUA share insurance rules; providing parity with FDIC deposit insurance rules); 69 Fed. Reg. 8798 (2004) (codified at 12 C.F.R. § 745.4(e), pt. 745 app.) (concerning coverage for beneficial interests in living trust accounts; issuing interim rule to simplify NCUA share insurance rules and to maintain parity with FDIC deposit insurance rules).

64 FDIRA, Pub. L. No. 109-171, tit. II, §§ 2101–2109, 120 Stat. 4, 9-21 (February 8, 2006).

65 Pub. L. No. 109-173, 119 Stat. 3601 (February 15, 2006).

66 *Michael P. Malloy,* Banking Law and Regulation, 2th ed., 2013, at section 6.03.

67 The merger was mandated by FDIRA § 2102, 120 Stat. 4, 9 (codified at 12 U.S.C. § 1821 note; 2 U.S.C.A. § 905, 12 U.S.C.A. §§ 24, 338*a*, 347*b*, 1431, 1441*a*, 1441*b*, 1464, 1467*a*, 1723*i*, 1735*f*-14, 1813, 1815, 1817, 1816, 1821, 1821*a*, 1823, 1824, 1825, 1827, 1828, 1831*a*, 1831*e*, 1831*h*, 1831*m*, 1831*o*, 1833*a*, 1834, 1841, 3341). On the effective date of the merger, March 31, 2006, the two former funds ceased (FDIRA § 2102(a)(3)), see id. § 2102(c) (establishing effective date)).

68 FDIRA § 2103(c) (codified at 12 U.S.C. § 1821(a)(3)(A)).

69 See also European Commission, Directorate General JRC Joint Research Centre, JRC Report under Article 12 of Directive 94/19/EC as amended by Directive 2009/14/EC, 2010, at 222.

70 See JRC Report (Fn 69), at 224. For further information on risk-based assessment rules and procedures with respect to deposit insurance under the DIF, see FDIRA §§ 2104–2106, 120 Stat. 4, 12–16 (codified at 12 U.S.C. §§ 1817 note, 1817(b)(1)(E)–(F), 1817(b)(2)(A)–(B), (D), (b)(3), (b)(5), (g), 1828(h)).

revenues needs of the DIF.[71] To monitor the adequacy of its resources the FDIC introduced the *Designated Reserve Ratio* which is defined as the amount of funds available to the FDIC over the amount of covered deposits.[72] The Reform Act allows the FDIC Board to set the target *Designated Reserve Ratio* within a range of 1.15 to 1.50 percent and to manage the pace at which the reserve ratio varies within this range.[73] *Dodd-Frank Act* requires the reserve ratio of the DIF to reach 1.35 percent by the end of September 2020.[74] To reach this aim, the FDIC adopted a Restoration Plan[75] that involved increasing the banks' contributions to the fund and making new adjustments to better reflect the risk banks pose to the DIF.[76] The DIF balance has risen for ten consecutive quarters, and stood at USD 22.7 billion (unaudited) per June 30, 2012, resulting in a reserve ratio of 0.32 percent. The FDIC projects that the DIF will reach 1.15 percent by the end of 2018 under current assessment rates.[77] The Reform Act also eliminates restrictions on premium rates based on the *Designated Reserve Ratio,* and grants the FDIC Board discretion to price deposit insurance in accordance with risk for all insured institutions regardless of the level of the reserve ratio. The funding of the DIF consists primarily of interest earned on investments in U.S. Treasury obligations and deposit insurance assessments. If necessary, additional (post-)funding sources are borrowings from the U.S. Treasury, Federal Financing Bank, Federal Home Loan Banks, and insured depository institutions.[78] For instance in 2009, the FDIC imposed an emergency fee on insured banks to replenish the DIF.[79] Additionally, the deposit insurance is assured by the Federal government. According to the FDIC homepage «FDIC deposit insurance is backed by the full faith and credit of the United States government. This means that the resources of the United States government stand behind FDIC-insured depositors.»[80] In other words, the DIF has an explicit governmental guarantee. Containing pre-funding as well as post-funding elements, the U.S. has a hybrid funding system.

2. Resolution of Insolvent Banks

When a bank fails, the FDIC is generally appointed as the receiver of the liquidation procedure. There are three types of possible resolution transactions:[81] Purchase and assumption transaction, deposits payoff, and open bank assistance transaction. The most common method is the purchase and assumption transaction, under which a healthy institution assumes certain liabilities and purchases certain assets of the failed institution. A different type of the purchase and assumption transaction consists in the bridge-bank transaction, under which the FDIC acts temporarily as the acquirer by taking over the operations of the failing institution and maintaining the banking services for the depositors. In case there is no open bank acquirer for the deposits, the FDIC

71 See FDIC, Reform of Deposit Insurance, available at *<http://www.fdic.gov/deposit/insurance/reform.html>*.

72 JRC Report (Fn 69), at 224. For further information on deposit insurance reserve ratio requirements see FDIRA §§ 2107–2108, 120 Stat. 4, 16–20 (codified at 12 U.S.C. §§ 1813(y), 1817(b)(3)(E), 1817 (e)).

73 FDIC, Reform (Fn 71).

74 Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111–203, § 334(d), 124 Stat. 1376, 1539 (2010) (codified at 12 U.S.C. § 1817(b)(3)(B)).

75 Adoption of Federal Deposit Insurance Corporation Restoration Plan, 75 Fed. Reg. 66293 (October 27, 2010).

76 In accordance with the Restoration Plan the FDIC has to update DIF loss and income projections at least semiannually, which allows the FDIC to evaluate whether growth in the DIF is likely to be sufficient to meet the statutory requirements (see for more details of the second-semiannual update for 2012: Financial Deposit Insurance Corporation, memorandum on the Update of Projected Deposit Insurance Fund Losses, Income, and Reserve Ratios for the Restoration Plan, available at *<http://www.fdic.gov/deposit/insurance/memo_2012_10_02.pdf>*).

77 However, over such a long-time horizon, the underlying forecasts and assumptions for several financial measures (including (1) bank failures, (2) changes in bank risk profiles, which affect assessment rates, (3) growth in the assessment base, (4) fund investment income, (5) operating expenses, and (6) growth in estimated insured deposits) are subject to considerable uncertainty (FDIC, memorandum on the Update of Projected Deposit Insurance Fund Losses, Income, and Reserve Ratios for the Restoration Plan, available at *<http://www.fdic.gov/deposit/insurance/memo_2012_10_02.pdf>*).

78 FDIC, Financial Statements and Notes, Deposit Insurance Fund, at 67, available at *<http://www.fdic.gov/about/strategic/report/2006annualreport/section4.pdf>*.

79 It was aimed to raise USD 5.6 billion (*Ari Levy/Margaret Chadbourn,* Lender Failures Reach 64 as Georgia Shuts Security Bank's Units, Bloomberg, July 25, 2009, available at *<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aTvSvyYr_sEE>*).

80 See *<http://www.fdic.gov/consumers/banking/confidence/symbol.html#Full>*.

81 See *<http://www.fdic.gov/consumers/banking/facts/payment.html>;* JRC Report (Fn 69), at 226.

will pay the deposits directly up to the insured balance in each account (deposit payoff). In rare situations, the FDIC provides financial assistance to the institution while the institution remains open for specific reasons. The FDIC is required to make payments of insured deposits «as soon as possible» upon the failure of an insured institution. The FDIC's goal is to make deposit insurance payments within two business days of the failure of the insured institution.[82] In almost every bank failure the insured deposits are available for the depositors on the next business day.[83] So far, no depositor has lost a part of his insured deposit.[84] Hence, the U.S. system seems to work.

3. Special Regulation for Systemically Important Financial Institutions

U.S. reforms regarding the regulation of Systemically Important Financial Institutions seek to eliminate the expectation of governmental bailout firstly by reducing the likelihood of systemic bank failures, and secondly by limiting the costs to society of such failures.[85] To reduce the probability of default the regulation of large banking organizations have been strengthened. The Basel III capital and liquidity reforms, including the graduated risk-based capital surcharges for globally systemic financial firms, are in process of implementation. Additionally, *Dodd-Frank Act* imposes on the largest financial institutions enhanced prudential standards and requires central clearing of derivatives. If the Federal Reserve determines that a bank holding company with assets of USD 50 billion or more poses a «grave threat» to the financial stability of the U.S., the company's ability to engage in M&A activity can be limited or a particular business activity can be required to be terminated or limited.[86] Banking regulators have also implemented enhanced supervisory measures such as stress testing and recovery planning.[87]

The authority used by the Federal Reserve and other regulators to bail out individual institutions during the crisis (including Bear Stearns, Citigroup, Bank of America and AIG) was eliminated by *Dodd-Frank Act*.[88] However, Congress recognized that there may be instances in which the failure of a large financial institution could threaten the financial stability of the U.S.[89] As a result the «Orderly Liquidation Authority» in Title II of the *Dodd-Frank Act* was created,[90] supplemented by the *«living will»* provision in Title I of that Act.[91] These regulatory tools establish together a new resolution framework which is available for those circumstances where the failure of a financial institution would clearly present systemic risk.[92] The FDIC's new *«single-point of entry»* approach under Title II reflects the fact that large, diversified U.S. financial institutions are usually structured with a holding company that owns various operating subsidiaries.[93] Under this approach the holding company absorbs all of the organization's losses, including those sustained by its operating

82 See *<http://www.fdic.gov/consumers/banking/facts/payment.html>*. Some deposits that require supplemental documentation from the depositors such as accounts linked to a formal written trust agreement, funds placed by a fiduciary on behalf of an owner such as a deposit broker or deposits placed by an administrator of an employee benefit plan may take a little longer. However, the timing of the completion of the deposit insurance determination is based only on the depositor providing the documentation needed by the FDIC to determine insurance coverage *(<http://www.fdic.gov/consumers/banking/facts/payment.html>)*.

83 JRC Report (Fn 69), at 226. A list of the failed banks can be found on the FDIC's website (available at *<http://www.fdic.gov/bank/individual/failed/banklist.html>*).

84 See *<http://www.fdic.gov/consumers/banking/confidence/symbol.html#Full>*.

85 *Jerome H. Powell,* Member Board of Governors of the Federal Reserve System, Ending «Too Big to Fail», speech at the Institute of International Bankers 2013 Washington Conference, Washington, D.C. (March 4, 2013), available at *<http://www.federalreserve.gov/newsevents/speech/powell20130304a.pdf>,* at 1.

86 *Richard K. Kim Wachtell* (Wachtell, Lipton, Rosen & Katz), United States, in: Banking Regulation, David E. Shapiro (contributing ed.) 2012, at 171.

87 *Powell* (Fn 85), at 4.

88 *Powell* (Fn 85), at 5.

89 The Clearing House, Banking Brief White Paper Series, Ending «Too-Big-to-Fail»: Title II of the Dodd Frank Act and the Approach of «Single Point of Entry» Private Sector Recapitalization of a Failed Financial Company, January 2013, at 4.

90 Dodd Frank Act §§ 201–204, 12 U.S.C. §§ 5381–5394.

91 Dodd-Frank Act requires all bank holding companies with USD 50 billion or more in assets to submit periodically a *«living will»* to regulators for the company's rapid and orderly resolution in the event of material financial distress or failure (Dodd Frank Act § 165(d), 12 U.S.C. § 5365(d)). See also *Wachtel* (Fn 86), at 173.

92 The Clearing House (Fn 89), at 4.

93 The Clearing House (Fn 89), at 6.

subsidiaries.[94] Hence, a severely distressed operating subsidiary is restored by its holding company. The subsidiary continues to operate and meet all its obligations to depositors, creditors, and customers, but under new ownership and new management.[95] As a result, the creditors of the holding company have a portion (or all) of their remaining claims converted to equity and become the new owner of the financial institution.[96] Until a failed large holding company has been orderly recapitalized by the private sector or liquidated, the FDIC is authorized to establish a bridge financial company to immediately, but temporarily, take over its critical businesses, assets, and liabilities.[97] If necessary, Title II provides a source of temporary liquidity funding that the FDIC may obtain from the Treasury Department.[98] The statute prohibits the use of this funding as a means to shift losses of the failed institution to taxpayers.[99] But given the complications associated with the resolution of the largest and most complex institutions, there are serious doubts that authorities in the U.S. (or elsewhere) would actually trigger these mechanisms even if a major institution were insolvent and not rather bail-out the institution.[100]

V. Propositions for Amendments of the Swiss Deposit Insurance Scheme in the Context of System Stability

1. Intervention by the Swiss Government

1.1 Applicable Law

Would the Swiss government intervene in case the deposit insurance fund of CHF six billion is not sufficient to overcome the breakdown of one or several banks? On the one hand, there is no explicit governmental insurance. In addition, the Swiss parliament lately abandoned the two-tier guarantee scheme, which would have included a subsidiary state guarantee.[101] Such two-tier guarantee scheme would qualify as explicit governmental insurance. One could argue that by abandoning such two-tier guarantee scheme, not only an explicit but also an implicit governmental insurance is excluded. Therefore, there is neither an explicit governmental guarantee nor would the Swiss government intervene on an implicit basis.

On the other hand, one could counter argue as follows: The Bank Act ensures deposits up to the amount of CHF 100,000; hence, a limited amount. Furthermore, this amount is rather low compared to the U.S. (USD 250,000)[102] and the EU (EUR 100,000)[103]. At the same time, the Bank Act regulates the self-regulation in detail. Hence, the government creates trust for depositors. Because of the regulator's reputation, this is a strong argument for the intervention by the government.[104] However, by now,

94 See e.g. *Martin J. Gruenberg,* Acting Chairman, FDIC, Remarks to the Federal Reserve Bank of Chicago Bank Structure Conference, May 10, 2012, available at <*http://www.fdic.gov/news/news/speeches/chairman/spmay1012.html?source=govdelivery*>.

95 *Gruenberg* (Fn 94).

96 *Gruenberg* (Fn 94). See also The Clearing House (Fn 89), at Fn 18.

97 Dodd-Frank Act § 210(h), 12 U.S.C. § 5390(h); *Powell* (Fn 85), at 7.

98 Dodd-Frank Act §§ 204(d), 210(n), 12 U.S.C. §§ 5384(d), 5390(n); FDIC & Bank of England, Resolving Globally Active, Systemically Important, Financial Institutions, December 10, 2012, at 6 f.

99 Dodd-Frank Act § 214(c), 12 U.S.C. § 5394. See also Dodd-Frank Act § 210(o), 12 U.S.C. § 5390(o). This is insured by five safeguards (For further information see *The Clearing House* [Fn 89], at 25 ff.). The ultimate safeguard requires the FDIC to impose risk-based assessments on financial institutions with consolidated assets of USD 50 billion or more (Dodd-Frank Act § 210(o)(1)(D)(ii), 12 U.S.C. § 5390(o)(D)(ii)).

100 *Admati/Hellwig* (Fn 9), at 77; *Daniel Indiviglio,* Will the FDIC's New Power End «Too Big to Fail»?, Atlantic, January 20, 2011; *Daniel Indiviglio,* «Still too Big, Still Can't Fail», Wall Street Journal, March 5, 2011.

101 See *supra* III.1.

102 See *supra* IV.1.

103 Art. 7 Abs. 1*a* of Directive 94/19/EC and Art. 1(3) of Directive 2009/14/EC requires EU member states to ensure that by December 31, 2010 their level of coverage is fixed at EUR 100,000. See also European Commission, Report from the Commission to the European Parliament and to the Commission: Review of Directive 94/19/EC on Deposit Guarantee Schemes, 2010, at 2.

104 For the relationship between regulation, confidence and the regulator's reputation see *Hans Caspar von der Crone/Isabelle Monferrini,* Kapital und Notfallplanung – Standortbestimmung zur Regulierung systemrelevanter Finanzinstitute, SZW 84 (2012), 494 ff., at 499 ff.; *Hans Caspar von der Crone/Tatjana Linder,* Regulierung: Reputation, Vertrauen und Verantwortung, in: Peter V. Kunz/Dorothea Herren/Thomas Cottier/René Matteotti (eds.), Wirtschaftsrecht in Theorie und Praxis, Festschrift für Roland von Büren, Bern 2009, at 723 ff. The protection of a limited amount that is implicitly guaranteed by the govern-

there has never been such a case. Therefore, and also because of the lack of explicit governmental guarantee and the fact that the Swiss parliament abandoned the idea of a two-tier guarantee scheme recently, there is still no definitive answer to the question.

1.2 Implicit versus Explicit Governmental Guarantee

Unlike the Swiss deposit insurance which is not explicitly backed up by the government, the U.S. DIF has an explicit governmental guarantee.[105] From a policy perspective: Should the Swiss deposit insurance also have an explicit governmental guarantee such as the U.S. or the two-tier guarantee scheme which the Swiss government proposed? Or should priority be given to the existing uncertainty regarding any implicit governmental guarantee? Governmental deposit insurance schemes produce economic costs which should remain as small as possible.[106] Particularly acute is the moral hazard problem. A *moral hazard* is a situation where a party will have a tendency to take risks because the costs that could be incurred will not be felt by the party taking the risk. In other words, it is a tendency to be more willing to take a risk, knowing that the potential costs or burdens of taking such risk will be borne, in whole or in part, by others.[107] For example, insurance ownership increases the risk that insured parties will incur losses, because owners of insurance have fewer incentives to take actions to help to prevent losses.[108] Therefore, deposit insurance creates for depositors as well as for banks the incentive to take bigger risks. Depositors can safely decide on the bank that pays the highest interests without considering the banks' risks. For instance, customers of Icelandic banks relied on the national deposit insurance scheme and benefited from high interest rates. If depositors do not have to take into account the banks' risks – as is the case in Switzerland[109] – risky banks can attract depositors with high interest rates. To pay those higher interests this additional capital must also be invested more riskily.[110] This increases the loss risk. A risk-based premium defuses the *moral hazard* problem.[111]

The insurance premium assessed by the FDIC for depository institutions is based not only on the balance of insured deposits, but also on the degree of risk the institution poses to the insurance fund.[112] In contrast, the Swiss banks' insurance premium depends only on their privileged deposits. The banks' risk is not considered.[113] Since risk-based premiums reduce the *moral hazard* problem and in the U.S. such risk is taken into account, the explicit governmental guarantee is much less problematic with regard to *moral hazard* in the U.S. than in Switzerland, where the banks' risk is not considered. Consequently, given the current Swiss regulation an explicit governmental guarantee should not be introduced. To mitigate the *moral hazard* problem, it is better to leave the market in uncertainty as long as the premium is not risk-based. Explicit governmental guarantee and a risk-based premium should only be implemented together at the same time.

1.3 Importance of a General Deposit Insurance Scheme with Governmental Guarantee not only for Systemically Important Financial Institutions

a. Trigger for Deposit Insurance and Confidence Shocks

Given the special regulation for systemically important financial institutions – which also protects depositors – one could argue that because system stability is mainly about big banks with systemically important functions, general deposit insurance with governmental guarantee is not necessary any more.

In Switzerland, the protection of deposits was triggered by the small bank Spar- und Leihkasse

ment could foster bank runs by healthier depositors regarding their deposits beyond CHF 100 000.

105 See *supra* IV.1.

106 *Manuel Ammann,* Einlagensicherung: Welche grundlegenden Reformen sind notwendig?, Die Volkswirtschaft, 12/2008, at 10.

107 *Howell E. Jackson/Louis Kaplow/Steven M. Shavell/W. Kip Viscusi/David Cope,* Analytical Methods for Lawyers, 2d ed. 2010, at 48.

108 *Jackson/Kaplow/Shavell/Viscusi/Cope* (Fn 107), at 48.

109 See *supra* III.1.

110 There is a strong and consistent relationship between the return on various classes of assets and the riskiness of those assets (*Jackson/Kaplow/Shavell/Viscusi/Cope* [Fn 107], at 251).

111 *Morgan Ricks,* Shadow Banking and Financial Regulation, in: Columbia Law and Economics, Working Paper No. 370, August 30, 2010, also available at <*http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1571290*>, at 32 ff.

112 See *supra* IV.1.

113 See *supra* III.1.

Thun.[114] Their breakdown was very dramatic because it fundamentally challenged general trust in the safety of Swiss banks. Not many such cases are necessary to also challenge the trust in the safety of big banks with systemically important functions. Confidence shocks that occur in tense situations should be avoided. A bank's size does not predicate the conclusions that observers draw from the customers' destiny for their own destiny. In the context of system stability, deposit insurance and respective governmental guarantee is needed for every bank, regardless of size.

b. U.S. and Swiss Regulations Compared

The U.S. has special regulations for systemically important financial institutions as well as a deposit insurance system with explicit governmental guarantee. There have already been lots of bank failures and in many cases the respective deposit insurance fund also had to pay depositors.[115] The FDIC was founded well before the Swiss deposit insurance system. If the U.S. regulation for big banks with systemically important functions is similar or at least comparable in the sense that it provides depositors with an additional protection, this is another reason or at least an indication why the mere existence of such special regulation does not mean that general deposit insurance with governmental guarantee is obsolete.

The Swiss *too big to fail* regulation[116] concerns capital, liquidity, risk diversification and organizational structure of systemically relevant banks. Key for the Swiss solution is the combined effect of the measures relating to capital and organization. If a systemically important bank's capital ratio falls below a certain level, the systemically important functions are quickly transferred to a new legal entity. Simultaneously, the contingent convertible bonds are converted into common equity. This ensures that the emergency plan can be implemented with an adequate capital base. Hence, already before the insolvency of a bank, those measures ensure the continuation of the systemically important functions that include deposit banking, without the bailout by the government. In the case that this will not work, there is a certain consensus that the Swiss government would bail out the systemically important functions and thereby also the deposit banking. Ergo, big banks have indeed broad governmental deposit insurance. Also the U.S. reforms regarding special regulation for systemically important financial institutions[117] seek to eliminate the expectation of governmental bailout firstly by reducing the likelihood of systemic bank failures, having strengthened the regulation of large banking organizations and secondly by limiting the costs to society of such failures. The Orderly Liquidation Authority supplemented by the *living will* provision establishes a new resolution framework which is available if the failure of a financial institution would clearly present systemic risk. The FDIC's *«single-point of entry»* approach focuses losses on the shareholders and long-term debt holders of the failed holding company, producing a well-capitalized bridge company to immediately, but temporarily, take over its critical businesses, assets, and liabilities and thereby also the deposit banking. If temporary government funding is necessary different provisions shall ensure that it cannot be used as a disguised taxpayer bailout. However, in the case that this will not work (or even already before the described mechanisms are triggered), it is doubtful that the government would really not bailout the respective financial institution. Both systems aim at reducing the likelihood of systemic firm failures in the first place, making a bailout by the government as hypothetical as possible. Although the two systems differ with regard to the particular regulation, they are at least comparable in the sense that they both provide depositors with an additional protection and – arguably – with a governmental guarantee.[118]

[114] See *supra* III.1.

[115] See *supra* IV.2. For a list of failed U.S. banks see <*http://www.fdic.gov/bank/individual/failed/banklist.html*>.

[116] See *supra* III.3.

[117] See *supra* IV.2.

[118] See for instance, «Too big to fail» schwellt weiter, NZZ, September 3, 2013, at 23. For FINMA's position regarding the resolution of global systemically important banks see FINMA, Resolution of global systemically important banks – FINMA position paper, August 7, 2013, available at <*http://www.finma.ch/e/finma/publikationen/Documents/pos-sanierung-abwicklung-20130807-e.pdf*>. FINMA's preferred resolution strategy for global systemically important banks consists of *the single point of entry approach.*

c. Deposit Insurance Particularly Affects Small and Medium Banks

In contrast to small and medium banks, the *too big to fail* regulation provides depositors with an additional protection and probably the deposit banking would even be bailed out by the Swiss government.[119] Hence, it is likely that big banks have broad governmental deposit insurance whereas this is debatable and much less clear with regard to the general deposit insurance. Do systemically important financial institutions therefore have a competitive advantage relative to small and medium banks? The additional regulation described for big banks generates costs which the residual banks do not have. Those additional costs might compensate the advantage, at least in part. In any case, deposit insurance particularly affects small and medium banks because of the special regulation for big banks.

2. Funding

2.1 Hybrid Funding

Although the U.S. system is mainly pre-funded, there are also post-funding components. The U.S. deposit insurance scheme is a hybrid funding system.[120] Also the EU intends to amend the relevant regulation and to obligate Member States to build a pre-funded deposit insurance scheme. If necessary, institutions would also have to make *ad hoc* contributions.[121] Furthermore, governments would have to intervene if deposit insurance systems were not able to handle a crisis situation.[122] Hence, also the EU intends to implement a hybrid funding system.

On the one hand, Switzerland's post-funding has the advantage that the institutions' assets are not bound, except for the liquidity requirements. However, a completely post-funded system is not sufficient if several small to medium banks or one of the big banks get into difficulties.[123] In addition, post-funding is less onerous during periods when there are no or only few failures, because premiums are not collected continually. Post-funding also avoids the administrative costs associated with the ongoing collection of premiums and fund portfolio management.[124] On the other hand, pre-funding has the following advantages:[125] It ensures a readily available fund which enables prompt disbursement to insured depositors. It is also fairer to collect premiums before a failure rather than after because this ensures that all members, including failed institutions, would have helped to cover the costs of the system. In addition, pre-funding avoids the pro-cyclical effect of post-funding. Finally, the fact that a pre-funded system is more likely to actually ensure the reimbursement of depositors compared to a post-funded system reinforces public confidence in the deposit insurance and banking system. In light of the above evaluation of pre- versus post-funding, a completely post-funded mechanism is not sufficient to achieve the aims of a deposit insurance scheme in the context of system stability.[126] However, a completely pre-funding system is not a good solution either, mainly because too many of the institutions' assets would be bound, and also because it is difficult to predict up to which amount a fund has to be built to be armed for any future situation. Therefore, Switzerland's post-funding system should be changed to a hybrid funding system. However, such change raises several questions: How, where and by whom should these funds be invested? There have to be clear rules for an investment as secure as possible which also warrants the necessary liquidity. Already today,

[119] Since the Federal Government already rescued UBS AG (BBl 2008 8841 [Fn 49], at 8943 f.) and the Federal Council stated that this would be done again in such a situation (Änderung des Bankengesetzes *[too big to fail, TBTF],* Erläuternder Bericht zur Vernehmlassungsvorlage, December 22, 2010, available at *<http://www.efd.admin.ch/dokumentation/gesetzgebung/00571/02254/index.html?lang=de>,* at 6), there might even be an explicit governmental guarantee (*von der Crone/Beeler* [Fn 49], at 179).

[120] See *supra* IV.1.

[121] European Commission, Directorate General JRC Joint Research Centre, JRC Report under Article 12 of Directive 94/19/EC as amended by Directive 2009/14/EC, 2010, at 41 ff., conclusion at 297.

[122] European Commission, Article 12 Directive 94/19/EC (Fn 121), at 203 ff. and 295.

[123] See *supra* III.1.

[124] International Association of Deposit Insurers, Funding (Fn 36), at 7.

[125] International Association of Deposit Insurers, Core Principles for Effective Deposit Insurance Systems, Principle 11, 2008, available at *<www.iadi.org>;* International Association of Deposit Insurers, Funding (Fn 124), at 3.

[126] International Association of Deposit Insurers, Core Principles (Fn 125); International Association of Deposit Insurers, Funding (Fn 36), at 3.

each bank has to hold liquid assets for at least half of its contribution obligation.[127]

2.2 Risk-based System

a. Rationale for a Risk-based System

Swiss institutions' premium only depends on their privileged deposits. Risk is not considered.[128] The FDIC assesses for depository institutions an insurance premium that is based on the balance of insured deposits as well as on the degree of risk the institution poses to the insurance fund. The FDIC is authorized to define risk broadly. Roughly, the FDIC's risk assessment model bases on an institution's probability of causing a loss to the deposit insurance fund due to the composition and concentration of the institution's assets and liabilities, the amount of loss given failure, and revenues needs of the DIF.[129] Also the EU plans to amend their respective regulation, obligating the Member States to introduce a risk-based premium.[130] To start with, it is fair that those banks with a higher balance of insured deposits pay a higher premium; the amount of loss is also bigger in case they fail. Ergo, the same is true for the amount of loss to the deposit insurance fund. But this should not be the only criterion. The demand for insurance not only depends on the possible extent of loss, but also on the probability of causing a loss to the deposit insurance fund above all.[131] In addition, a system which does not consider the banks' risk is inequitable from a fairness perspective because more prudently managed low-risk institutions subsidize higher-risk institutions. The exposure to *moral hazard* is also higher than under a risk-adjusted system.[132] In a risk-adjusted system banks have an incentive to lower their risk. Finally, consideration of the banks' risk is also fair given the special regulation for systemically important financial institutions. This regulation produces additional costs for the respective institutions, and at the same time leads to lower risks. If the banks' risk is taken into account, systemically important financial institutions profit from lower premiums. Thereby these additional costs are partially compensated.

b. Imperfection of Risk-based System

Due to the rationale described above an effective deposit insurance scheme should be risk-based. In practice however, it is very difficult and complicated to calculate the applicable risk.[133] A risk-based system can hardly ever be perfect. Therefore, it is not a decision between a risk-based and a non-risk-based system but rather between an imperfectly risk-based and a non-risk-based system. The investigation of risk-based models for calculating contributions of deposit insurance schemes by the European Commission illustrates three possible approaches, shedding light on different reasons why perfect risk assessment is impossible.[134] The common disadvantage of the first two models which use accounting-based indicators consist in their backward-looking nature. In theory, this could be overcome by the third model that aims at estimating the probability of default of financial institutions by including forward-looking information, such as market price information. But in practical terms, the lack of market price information for many financial institutions across the EU – eg. for those that are not listed on a stock exchange – makes this model very difficult to implement.[135] In addition, even forward-looking information, such as market price information, is based on historical experiences. Historically unlikely events can hardly

127 See *supra* III.1.
128 See *supra* III.1.
129 See *supra* IV.1.
130 See European Commission, Joint Research Centre, Possible models for risk-based contributions to EU Deposit Guarantee Schemes, June 2009.
131 BBl 2010 3993 (Fn 24), at 4001.
132 International Association of Deposit Insurers, Funding (Fn 36), at 16. For a detailed discussion of differential premium systems and guidance see International Association of Deposit Insurers, General Guidance for Developing Differential Premium Systems, February 2005, available at *<http://www.iadi.org/docs/IADI_Diff_prem_paper_Feb2005.pdf>*.
133 See e.g. the following FDIC rules on risk assessment: Federal Deposit Insurance Corporation, Risk Based Assessments, Fed. Reg., vol. 73, No. 246, December 22, 2008, at 78155 ff., available at *<http://www.fdic.gov/regulations/laws/federal/2008/08ruleAD35.pdf>*. To leave the risk calculation to the market *Marc Blatter* and *Reto Tanner* propose a new account category with limited deposit insurance in addition to the completely insured deposit accounts (*Marc Blatter/Reto Tanner,* Beschränkte Einlagensicherung als Lösungsansatz für das Grossbankenproblem, Die Volkswirtschaft, 4/2010, at 23).
134 European Commission, Models for risk-based contributions (Fn 130).
135 European Commission, Models for risk-based contributions (Fn 130), at 2 f.

ever be considered. Therefore, every risk assessment is imperfect.[136] Another problematic issue is the pro-cyclicality effect and the fact that some banks might suffer more than others from periods of financial distress, due, for instance, to the special characteristics of their business.[137] Also some comments on the recent adjustment of large banks' pricing by the FDIC shed light on different problems of risk assessment:[138] To mitigate the pro-cyclicality in the assessment system the FDIC focuses on long-term performance. However, it is not feasible to avoid any scorecard measures with pro-cyclical features. In addition, it is difficult to design a risk assessment system that is as consistent as possible with the high complexity of the issue without being overly complex. An overly complex scorecard makes it difficult for the institutions to accurately predict risk assessment.[139] In conclusion, even bearing in mind the imperfectness of a risk-based system, the advantages of such a system outbalance the disadvantages of a non-risk-based system. Therefore, the Swiss system should be changed to a risk-adjusted system although imperfect.

c. Risk Assessment by the Government

In the above-cited document on the recent adjustment of large banks' pricing, the lack of transparency in the FDIC's risk assessment model is criticized. For instance, validation is difficult because not all of the scorecard information is publicly available. Another comment proposed that the FDIC should periodically seek bids in the reinsurance market as an independent verification of the accuracy of the FDIC's deposit insurance pricing.[140] Those comments are connected with the question as to who shall assess the banks' risk. Roughly and simplified, risk can be assessed in three different ways: by the institutions themselves, by the government, or by market-based factors. Is the government able to appropriately assess the institutions' risk? Probably the institutions themselves are in a better position to assess each other's risk. So maybe the banks should monitor each other (instead of the government) and assess their risks (reciprocal risk assessment)? At first, it seems natural to have a reciprocal risk assessment system. However, such system involves the danger that the banks abuse the system by illegal mutual agreements. Therefore, the Swiss regulator should establish risk assessment guidelines – also considering market-based factors, for instance, by seeking bids in the reinsurance market – and monitor the institutions correspondingly.

d. Different Risk Assessment Models for Large versus Small and Medium Banks

As mentioned above,[141] deposit insurance and respective governmental guarantee is needed for every financial institution, regardless of size. However, measures that best assess a large institution's ability to withstand stress are different from those for small institutions.[142] Consequently, the FDIC makes such distinction regarding its risk assessment models. Given a risk-adjusted model the Swiss regulator should also consider existing differences between large and small banks. To assess whether and up to which extent the Swiss government could make similar adjustments or distinctions according to the institutions' size, a comparison between the structures of the Swiss and the U.S. banking system would be required, answering the following questions: How much unsecured deposits do large banks have compared to small and medium banks? How many assets do large banks have compared to small and medium banks? Financial size matters. However, such comparison and corresponding conclusions for the exact risk assessment of large and small or medium banks would go beyond the scope of this paper.

e. Risk Requirement for Banks' Participation in Insurance Fund?

In the U.S., depository institutions may become insured upon application to and examination by the

136 *Von der Crone/Monferrini* (Fn 104), at 497. See also *Admati/Hellwig* (Fn 9), at 136 f.

137 European Commission, Models for risk-based contributions (Fn 130), at 38.

138 Federal Deposit Insurance Corporation, Assessments, Large Bank Pricing; Final Rule, Fed. Reg. vol. 76, No. 38, February 25, 2011, 10672 ff., available at <*http://www.fdic.gov/deposit/insurance/11RuleAD35.pdf*>, in particular at 10699 ff.

139 Federal Deposit Insurance Corporation, Federal Register 2011 (Fn 138), at 10701.

140 Federal Deposit Insurance Corporation, Federal Register 2011 (Fn 138), at 10702.

141 V.1.3.

142 Federal Deposit Insurance Corporation, Federal Register 2011 (Fn 138), at 10702.

FDIC and approval by the FDIC's board of directors.[143] Hence, depository institutions do not automatically participate in federal deposit insurance. Rather, to receive this benefit, they must follow certain liquidity and reserve requirements.[144] Under certain conditions, depository institutions can even be excluded from the deposit insurance scheme.[145] However, after such exclusion the insured deposits continue to be insured for a period between six months and two years.[146] In the EU, a credit institution only may take deposits if it is a member of a deposit insurance scheme.[147] The exclusion of such deposit insurance scheme is possible if it is permitted by national law. However, deposits made before the expiry of the competent authorities' notice of the intended exclusion continue to be fully covered by the scheme.[148] This shall not be changed in connection with the intended introduction of risk-adjusted deposit insurance schemes.[149]

At first, it seems consistent not to insure the deposits of institutions with low and therefore insufficient risk profile if the Swiss deposit insurance is changed into a risk-adjusted system, because of the *moral hazard* problem. However, the fact that in the U.S., not every institution's deposits are insured is a crucial difference to the Swiss system, where every institution has to participate in the deposit insurance scheme.[150] Because of this *status quo* in Switzerland, and the respective depositors' confidence, it is difficult to take off the deposit insurance only afterwards. This corresponds to the EU regulation. Even in the U.S., the insured deposits continue to be insured although only for a limited time. If not every institution's deposits are insured, a respective disclosure is very important to save depositors from false confidence. Correspondingly, U.S. depositors have access to a list of the insured institutions as well as to other important information about the insurance of their deposits. Given the lack of financial literacy of many if not most depositors, it is important that such information is easy to find and sufficiently simplified so that depositors can understand it. On the one hand, information is easily accessible via the FDIC homepage and the option to call somebody for advice if depositors are confused with the flood of information is helpful.[151] On the other hand, it is questionable whether the average depositor even knows about the existence of the FDIC, not to mention the possibility of accessing respective information via their website. In light of the rationale developed above, the exclusion of a Swiss institution from the deposit insurance system, simultaneously taking off the coverage of the corresponding deposits, makes even less sense. For it is specifically deposit insurances' intent and purpose to insure deposits when an institution gets into difficulties. The exclusion of an institution at this moment would probably lead to a *bank run.* And this is exactly, what deposit insurance wants to avoid.

3. Repayment Time

Deposit insurance is not only about protection from loss but also about liquidity. Depositors get into difficulties if they cannot access their accounts within days of the respective institution failings. Depositors must be able to dispose over their money any time. Only then can *bank runs* be avoided and system stability be supported. As a similar example, imagine the chaos that would occur if all cash dispensers malfunctioned in the center of Zurich. The FDIC is required to make payments of insured deposits as soon as possible upon the failure of an insured institution. The goal is to make such payments within two business days of the failure of the insured institution.[152] The EU intends to shorten the actual disbursement period of four to six weeks (depending on the respective member state) to repayment within one week.[153] Following the bankruptcy of a Swiss bank, insured deposits are paid out as soon as possi-

143 See for the FDIC 12 U.S.C. § 1815(a)(1).
144 12 U.S.C. § 1816.
145 12 U.S.C. § 1818(a)(2).
146 12 U.S.C. § 1818(a)(7).
147 Art. 3(1) of Directive 94/19/EC.
148 Art. 3(3) of Directive 94/19/EC.
149 Legislative proposal for a thorough revision of the Directive on Deposit Guarantee Schemes, adopted on 12 July, 2010 by the European Commission, available at <*http://ec.europa.eu/internal_market/bank/docs/guarantee/20100712_proposal_en.pdf*>.
150 See *supra* III.1.
151 See for instance the information available at <*http://www.fdic.gov/consumers/consumer/news/index.html*>.
152 See *supra* IV.2.
153 European Commission, Report from the Commission to the European Parliament and to the Commission: Review of Directive 94/19/EC on Deposit Guarantee Schemes, 2010, at 5.

ble if the bank's liquid assets and the ranking order of the residual creditors so allow. If the bank's liquid assets are not sufficient to pay the depositors, the deposit insurance fund must collect the respective money among other banks and pay out the depositors within 20 business days of ordering restructuring measures or bankruptcy. According to the banks' self-regulation, the deposits have to be disbursed in a shorter time than the Bank Act requires, namely within five calendar days of notifying the measures.[154] The immediate payments from the institution's liquid assets provide depositors with the necessary liquidity to remain confident and protect also depositors whose bank deposits exceed the guaranteed amount of CHF six billion.[155] Therefore, there is no harm due to the rather long 20 business day limit by the Bank Act for back up by the fund (respectively the welcome shorter five calendar day limit provided for by the self-regulatory system) although it is longer than the U.S. provision of two business days and the planned disbursement period of seven days of the EU. In addition, also the other banks benefit from the immediate payments because it releases them from paying into the fund. This contributes to system stability.[156]

VI. Conclusion

If there is no deposit insurance, investors are afraid of losing their deposits in case of bank insolvency. This can lead to a *bank run.* Because of a general loss of confidence in the banks' stability and in the safety of the deposits, a system effect occurs when many banks suffer runs at the same time. Deposit insurance can prevent such a threat to system stability and contribute to the banks' liquidity – especially in times of crisis. However, guarantees such as deposit insurance can only make a partial contribution to system stability and not replace other necessary measures to prevent bank insolvencies like equity requirements.

If one or several Swiss banks fail and neither their liquid assets nor the deposit insurance fund of six billion Swiss francs is sufficient to overcome their failure, there is no explicit governmental insurance according to current law. Since the Bank Act insures deposits up to the amount of 100,000 Swiss francs – a limited and compared to the U.S. (USD 250,000) and the EU (EUR 100,000) low amount – and regulates the self-regulation in detail, the government creates trust for depositors. Because of the regulator's reputation this is a strong argument for the intervention by the government. Hence, although this issue remains debatable because there has never been such a case, there is probably an implicit guarantee by the Swiss government according to current law. Since a risk-based premium reduces the *moral hazard* problem and in the U.S. such risk is taken into account, the explicit governmental guarantee is much less problematic in the U.S. than in Switzerland, where the banks' risk is not considered. Consequently, given the current Swiss regulatory framework, the (debatable) implicit guarantee should only be changed into an explicit governmental guarantee together with risk-based premiums. To avoid confidence shocks and given the fact that also in the U.S., special regulation for big banks with systemically important functions and deposit insurance coexist, Switzerland needs a general deposit insurance with governmental guarantee for all institutions. Unlike the debatable situation of deposit insurance, there is a certain consensus that the Swiss government would bail out the systemically important functions of big banks and thereby also the deposit banking. Consequently, general deposit insurance affects particularly small and medium banks. The Swiss post-funding system should be changed into a hybrid funding system similar to the one of the U.S. and as intended by the EU. There have to be clear rules for an investment as secure as possible which also warrants the necessary liquidity. Additionally, the Swiss funding system should become risk-adjusted like the current regulation in the U.S. and the intended regulation in the EU, although such risk assessment remains imperfect. Since a reciprocal risk assessment system by the institutions themselves involves the danger of banks abusing the system by illegal mutual agreements, the government should establish risk assessment guidelines – also considering market-based factors, for instance, by seeking bids in the reinsurance market – and monitor the institutions correspondingly. Given a risk-adjusted model there should be different risk assessment models for large and small banks. Because of the status quo which includes every bank in the deposit insurance scheme

[154] See *supra* III.1 and III.2.
[155] *Schwob/Müller* (Fn 7), Art. 37*b* N 4; *Sethe* (Fn 5), at 512.
[156] *Schwob/Müller* (Fn 7), Art. 37*b* N 6; *Sethe* (Fn 5), at 512.

and the resultant depositors' confidence, it is difficult to take off deposit insurance afterwards. If not every institution's deposits are insured like in the U.S., disclosure is crucial. Whether this requirement is met by the FDIC's website remains questionable. The exclusion of a Swiss institution from the deposit insurance scheme, simultaneously taking off the coverage of the corresponding deposits, should not be possible. Only if depositors are able to dispose over their money at any time, can bank runs be avoided and system stability be supported. The immediate disbursements from the institution's liquid assets provide Swiss depositors with the necessary liquidity to remain confident and protect also depositors whose bank deposits exceed the guaranteed amount of CHF six billion. Additionally, it releases the other banks from paying into the fund which also contributes to system stability. The U.S., Switzerland and the EU focus on deposit insurance and not on other deposit-like short-term liabilities which also create the risk of bank runs. Further regulation should also focus on this issue.