Annex 5: Systemic stability in areas not affected by the TBTF regime

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Introduction

It is not only the systemically important banks that pose systemic risks. This report therefore addresses – as a supplement to the "Final report on TBTF policy in the big bank sphere" – the potential risks to financial market stability that do not stem from systemically important banks.

The individual sections have no direct correlation with one another, and can therefore be read on a stand-alone basis. The structure of the report is as follows:

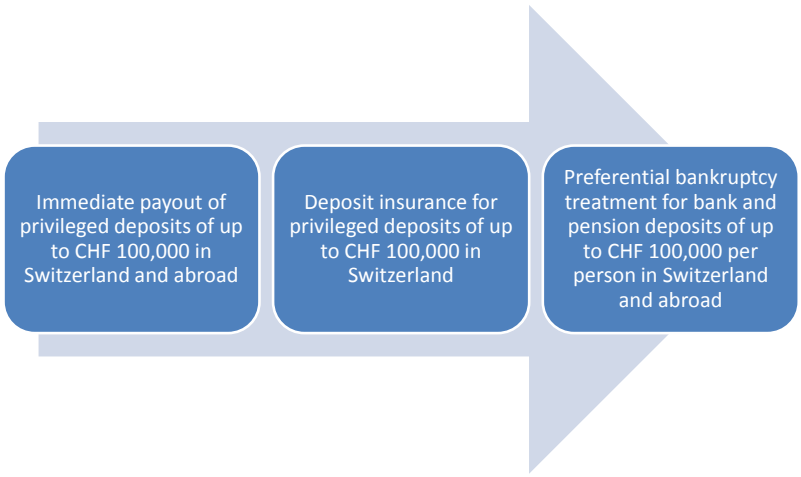
The first section concerns itself with depositor protection. Systems to protect bank deposits have an important role to play in preventing panic-driven deposit withdrawals by bank customers (so-called "bank runs"). The focus of this section therefore lies on the current Swiss depositor protection system, and on possible areas of action with a view to enhancing or redesigning the system. The second section addresses the problem of instability arising from the simultaneous default of several significant but not systemically important banks ("too many to fail"). Here the question arises as to what precautionary steps might be taken to prevent such a scenario from occurring. The third section analyses the risk to credit institutions posed by tax-related incentives to take on debt, above all in the case of private individuals. The fourth section analyses the significance of the insurance sector for financial stability against the backdrop of current international debate on this issue. The fifth section explores the question of whether shadow banks pose systemic bank-like risks that would justify regulation in this area. This issue is increasingly becoming the focus of international debate, due to concerns that the increased regulation of the banking sector could have the effect of pushing activities into unregulated sectors. Financial market infrastructures now play a very important role in the financial markets, and their potential outage therefore represents a significant risk to the stability of the financial system. Moreover, the recent financial crisis showed that a lack of transparency and insufficient collateralisation in markets for derivatives traded outside of exchanges (OTC derivatives) could jeopardise the entire financial system. These two issues are therefore addressed in the sixth section. The seventh and final section summarises the recommendations arrived at on the basis of the analyses contained in Sections 1 to 6.

1 Depositor protection

The function of depositor protection systems is to prevent panic-driven withdrawals ("bank runs") on the part of bank customers, particularly small savers, specifically by guaranteeing that a minimum deposit amount is protected.[1] These systems have a stabilising effect on the financial system as a whole, and increase the confidence of bank customers in financial institutions. However, the problem of "moral hazard" should be taken into account when designing such systems. Such systems are now commonplace – of the FSB's member states, only Saudi Arabia has no explicit arrangement in place. At the peak of the financial crisis, immediate measures were introduced in a majority of countries, involving in particular an increase in the guaranteed amount. In most cases, these measures have now been enshrined in permanent legislation.

1.1 Background

In Switzerland the statutory protection of investors in its current form has been in place since 2008, and encompasses all deposits held with a Swiss bank or a Swiss securities dealer that are held in the name of the depositor, up to a maximum amount of CHF 100,000 per depositor and institution (including medium-term notes held in the name of the bearer at the issuing bank). This protection has **three stages** and is regulated through a number of different legislative provisions:



Source: FINMA

1. Privileged deposits are immediately paid out from the total available liquidity of the insolvent **bank** (Article 37b para. 1 BankA); in an ideal scenario, the claims of creditors would be met by these assets alone. A bank is obliged to hold the equivalent of 125% of its privileged deposits in the form of domestically secured receivables or other assets located in Switzerland (asset base protection; Article 37a para. 6 BankA). Although these assets do not have to be in liquid form *per se*, they must be able to serve the purpose of making liquidity available to a certain extent, either directly or indirectly, depending on their composition).[2]

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[1] Custody account assets belong to the customer and are not affected, as in the event of a bankruptcy they would be fully segregated and handed over to the customer (Art. 37d BankA).

[2] The aggregated sum of privileged deposits in all banks amounted to approx. CHF 399 billion at the end of 2009, and approx. CHF 498 billion at the end of 2013, whereby the sharp increase in recent years is attributable to the banking license granted to Postfinance on the one hand, and the re-establishment of privileged status for numbered and pseudonym accounts on the other. As of mid-

2. If the available funds for immediate payout are insufficient, the so-called **deposit insurance scheme** for insured deposits kicks in (see below). Insured deposits are defined as privileged deposits excluding deposits held with pension foundations, insofar as the deposits are booked in Switzerland (Article 37h para. 1 BankA). Protected deposits amounted to approx. CHF 340 billion at the end of 2009 and approx. CHF 430 billion at the end of 2013.

3. The remaining protected deposits not covered by available liquidity – including those not booked in Switzerland – are given preferential **bankruptcy** treatment and are considered to be claims of the second bankruptcy class (Article 37a para. 1 BankG).[3]

The **depositor insurance scheme** – the second stage of depositor protection – is based on a self-regulatory mechanism, which in 2005 led to the establishment of the Swiss Banks' and Securities Dealers' Depositor Protection Association ("esisuisse"), which has a formal entry in the Swiss Commercial Register.[4] This self-regulatory mechanism, to which all banks and securities dealers in Switzerland that accept customer deposits must be affiliated, is subject to approval by FINMA (Article 37h paras. 1 and 2 BankA; Art. 36a SESTA).

If an institution becomes insolvent, FINMA notifies esisuisse of this development and of the corresponding funds needed to pay out the protected deposits. If the available funds are insufficient, the deposit insurance scheme is activated. Esisuisse immediately calls on the other member institutions to provide the funds required for payment of the protected deposits, and makes these available to the administrator tasked with restructuring or winding up the insolvent bank within 20 working days[5] (Article 37h para. 3a, 37i and 37k BankA).[6] The administrator pays out the protected deposits as soon as he has received the corresponding funds (Article 44 para. 1 BankO[7]). If the sum received is not enough to satisfy all the claims listed in the payout plan, the protected deposits are paid out on a pro rata basis (Art. 44 para. 2 BankO[8]). The upper threshold of the ceiling is CHF 6 billion (Art. 37h para. 3b BankA), which is the equivalent of some 1.4% of protected deposits as per the end of 2013.[9] The scheme is therefore not in a position to overcome a systemic crisis, nor could it absorb the insolvency of one of the (according to the IMF: 10) largest banks, even if the banks do have to hold sufficient tangible and readily disposable assets to cover half of their maximum contribution obligations (totalling CHF 3 billion) as additional liquidity (Article 37h para. 3c BankA). esisuisse would rank among the paid creditors to the extent of any payments, and would likewise be assigned to the second bankruptcy class where its claims are concerned (Article 37j BankA). If the

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2014, liquidity in the form of high-quality liquid assets (HQLA) amounting to CHF 385 billion (position: Swiss francs) and CHF 681 billion (position: single currency) was available (Art. 14 para. 2 of the latest version of the LiqO valid from 1 January 2015 demands that the quantitative requirements are met both for positions in Swiss francs and for positions in all currencies [single currency]).

3 Non-protected deposits (in particular, those that exceed the maximum amount of CHF 100,000 per depositor and bank) are assigned to the third bankruptcy class.

4 www.esisuisse.ch. With regard to the following observations, see the intranet site of esisuisse, in particular the FAQs and the short films section.

5 In contrast to the statutory provisions of other jurisdictions, the Banking Act refers to "working days" rather than "business days".

6 According to Article 5 para. 5 of the self-regulation mechanism recognised by FINMA, esisuisse must ensure that payment on account can be made to the designated administrator – within no more than five calendar days of notification by FINMA – at the maximum level of the privileged deposits reported by the affected institution at the prior year-end.

7 In the version valid from 1 January 2015.

8 In the version valid from 1 January 2015.

9 As per the end of 2009: 1.76%. In the EU, the target level for deposit guarantee funds amounts to 0.8% of protected deposits (0.5% for highly concentrated financial centres) (Fn.11). The equivalent figure in the US is 1.35% as per the Dodd-Frank Act and 2% as per the strategic FDIC (Fn. 12).

corresponding funds were not recovered by the deposit insurance scheme, the contribution obligation would rise once again to the maximum level of CHF 6 billion.

The supplementary financing aspect of the scheme would have a pro-cyclical effect on the financial markets in the event of a general crisis, and therefore harbours the risk of a chain reaction. This pro-cyclical effect can at most be reduced to a limited extent even with an *ex ante* solution via replenishment of the fund (and in the event of losses exceeding the fund's value); it would generally be reduced if undefined payments that take place over a longer timeframe do not immediately trigger provisions for the banks obliged to contribute. Whether (and to what extent) provisions will actually have to be formed for contribution obligations to *ex ante* solutions depends on the specific and legal design of the system, and on the applicable accounting standard.

A proposed **modification** of the deposit insurance scheme was ruled out in 2011. The corresponding legislative draft, which had been released for consultation at that point, was considered unlikely to achieve a parliamentary majority, particularly as it envisaged a public deposit insurance fund (DIF) that would be financed on an *ex ante* basis, an increase in the scheme's funding ceiling, and a second comprehensive protection stage involving the Confederation (taking the form of an advance payment or guarantee). It was feared that the financing of the DIF would have repercussions for the credit and capital markets, and that the competitiveness and appeal of the Swiss financial centre would be damaged. The accompanying dispatch explained that the question of whether (and how) a modification of the scheme should be undertaken could be revisited again in the future, namely when the results of the Commission of Experts on the "too big to fail" issue had been released on the one hand, and when the design and the repercussions of the future standards for financial intermediaries (specifically with respect to the tightening of capital and liquidity requirements, as well as with respect to transparency and risk guidelines) had been finalised on the other.[10]

Where depositor protection overall is concerned, a comparable three-stage structure is not envisaged in foreign systems. The Swiss deposit insurance scheme (as the second stage of deposit protection) differs from those of the **EU**[11] and **USA**[12] in a number of aspects. One of

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10 BBl *2010* 4004.

11 Deposits are insured up to the level of EUR 100,000 per customer and bank. One or more Deposit Guarantee Schemes (DGS) must be established in every member state (insofar as they do not already exist). These funds are financed on an *ex ante* basis by bank levies, the extent of which is determined by the level of insured deposits held and the risk profile of the individual institution. As a rule, a fund should have accrued a sum amounting to 0.8% of protected deposits – which would result in a total of EUR 60 billion across the EU as a whole – within 10 years (starting in 2014). 70% of the fund must be provided in the form of cash (*ex ante*), while the remainder can be provided in the form of payment commitments (*ex post*). If a fund does not have sufficient liquidity to cover a specific insurance case, it then calls in the additional contributions on an *ex post* basis. As a final instrument, it has access to alternative financing arrangements such as public or private loans. The maximum deadline for the reimbursement of savers in the event of an insolvency is being reduced in phases from 2019 (from the current 20 working days to just 7 working days from January 2024 onwards). Under certain circumstances, member states may allow the DGS to use some of its fund resources in a preventative way (i.e. to ward off a bank insolvency).

12 The "Federal Deposit Insurance Corporation(FDIC)" guarantees account deposits up to USD 250,000. The FDIC relies on a Deposit Insurance Fund (DIF) that is financed on an *ex ante* basis. The DIF is funded by risk-based bank levies and any capital gains generated by the fund's assets. The Dodd-Frank Act (DFA) prescribes a minimum level for the DIF of 1.3% of all protected deposits. This ratio must be reached by September 2020 at the latest, and currently stands at just 0.63%. At the same time, the FDIC has set out a minimum level of 2% as its strategic target. Like any financial institution, the FDIC has access to an emergency line of credit, in this case from the US Treasury. In addition, the FDIC has the option of obtaining a loan of up to USD 100 billion from the same source. The US has not set any specific deadline for the payout of protected deposits.

the differences is the way the scheme is financed. Although Swiss banks must hold the above-mentioned additional liquidity, an *ex ante* financing solution in the sense of a deposit insurance fund does not exist. The Swiss regime therefore essentially represents a hybrid solution consisting of an *ex post* financing component (through promises of payment) and a decentralised preparatory *ex ante* financing component (involving the holding of additional liquidity). In this context, it should be pointed out that the "Core Principles for Effective Deposit Insurance Systems", which were published by the Basel Committee for Banking Supervision (BCBS) and the International Association of Deposit Insurers (IADI) back in June 2009, do actually permit a purely *ex post* financing solution.[13] However, there is now a clear preference for solutions financed on an *ex ante* basis.[14] No less than 16 of the FSB's 21 members have opted for *ex ante* financing.[15]

Conclusion: The three-stage structure of depositor protection is unique in an international comparison. The first stage offers a certain degree of protection. This also became apparent during the financial crisis[16], even though the circumstances of any future crises may be entirely different. However, if the activation of the deposit insurance scheme were to become necessary (particularly in the event of contagion), it would not be possible to absorb either a systemic crisis or the insolvency of one of the biggest banks. In view of unfolding developments, the decision was taken in 2011 to eschew any enhancement or modification of the second stage.

1.2 Developments

In January 2013, the Basel Committee for Banking Supervision published quantitative standards on liquidity under the Basel III regime, which included clarification of the relationship between deposit insurance and liquidity: The more secure the deposit insurance, the lower the level of liquidity that needs to be held – and vice versa. A pre-funded deposit insurance scheme which is independent of the banks, envisages a short payout deadline, and is familiar to a wide public, justifies a lower so-called outflow rate. There is therefore a **correlation between liquidity requirements and deposit insurance**. Specifically, the outflow rate of 5% as per the Liquidity Ordinance (as is currently prescribed[17]) could be reduced to 3% as long as the following prerequisites are met:

- The deposit insurance scheme is pre-financed by the regular collection of contributions from the banks holding protected deposits, and has the appropriate instruments to ensure easy access to further financing in the event of a major claim against its reserves, such as an explicit and legally binding state guarantee or permanent authorisation to borrow from the state.

Essentially this should take place as soon as possible. On average this has taken place at the end of the following working day.

13 Viewable at www.bis.org/publ/bcbs156.htm

14 Cf. also the revision of the "Core Principles" released by the IADI for consultation in August 2014 (www.iadi.org/Research.aspx?id=57).

15 www.financialstabilityboard.org/publications/r_120208.pdf

16 The bankrupt Banque Privée Espírito Santo SA likewise had sufficient funds and liquid assets to fully reimburse the privileged deposits of its customers (cf. FINMA media release of 19 September 2014).

17 Cf. Annex 2 Point. 1.1.1 LiqO (version valid from 1 January 2015).

- The institution providing the deposit protection has formal legal powers enabling it to fulfil its task, and is operationally independent, transparent, and accountable.

- Access to protected deposits is typically granted to depositors within a maximum of seven working days of the deposit insurance being activated.

- The deposit insurance scheme is familiar to a wider public.[18]

In its report on Switzerland's country review as part of the Financial Sector Assessment Program, which was published at the end of May 2014, the IMF argued that the existing system ceiling "[…] *could create the impression that at times of stress some insured deposits would not be reimbursed. Other features of the scheme, which may reduce the risk and cost to the members, are complex and difficult for depositors to understand. To mitigate the risk of contagion, depositors need to be confident that they will be reimbursed quickly and with certainty."* For these reasons, and in order to counter the problem of pro-cyclicality, the IMF recommended in particular that:

- *"A paid-in fund is introduced with a target level of funding based upon the failures of a number of midsize institutions, supplemented by back-up lending from the authorities.*

- *A fixed deadline is adopted for paying insured deposits, preferably within seven days.*

- *At least six board members of esisuisse should be independent of the banking industry.*

- *The two exempted deposit-takers should become regulated members of the scheme."* [19]

As a result of the IMF's recommendations, a parliamentary interpellation was submitted, which was then tackled by the Council of States of September 2014.[20]

Conclusion: The developments of recent years justify revisiting the question of enhancing or redesigning the deposit insurance scheme (i.e. the second stage of deposit protection) and weighing up the corresponding options. Unlike in 2008, however, there is no urgent rush for this re-evaluation.

[18] Cf. Point 75 et seq. of the paper "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools" of the Basel Committee for Banking Supervision of January 2013.

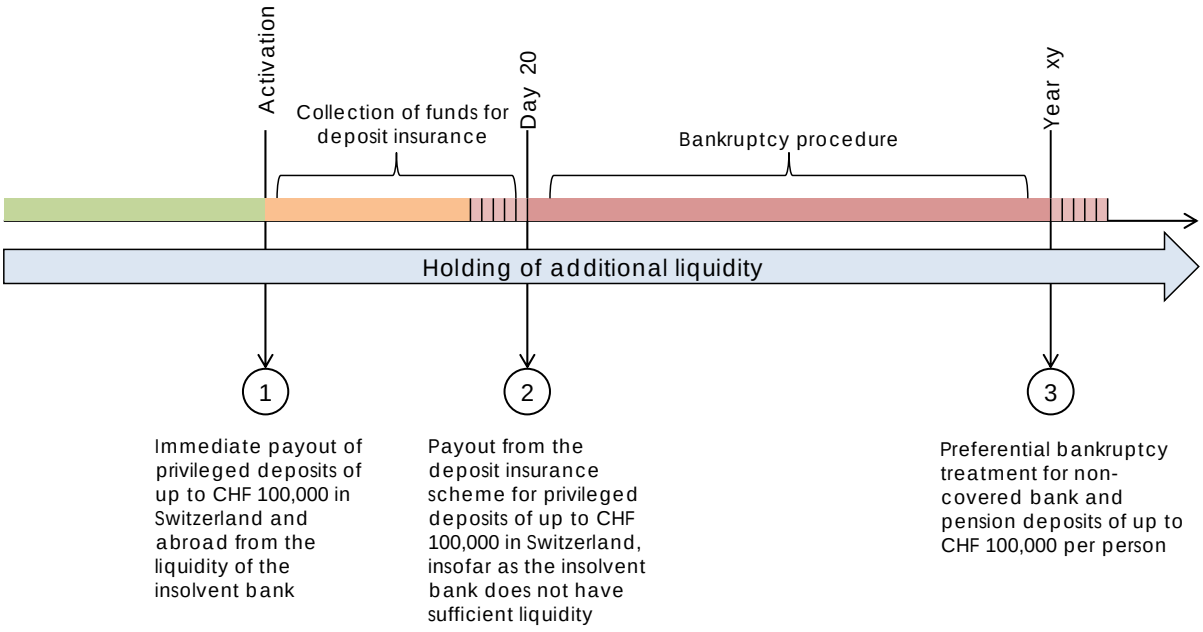
[19] www.imf.org/external/pubs/ft/scr/2014/cr14143.pdf

[20] Interpellation 14.3572, Bischof Pirmin, "Savings deposit protection of CHF 100,000. Where are the weaknesses? How can these be eliminated?"

1.3 Possible courses of action

1.3.1 Retention of status quo with selective adjustments

Cf. the description of the status quo in sub-section 1.1. – schematically illustrated:



Source: FDF

The criticism voiced by the IMF in its country review of Switzerland, which was published at the end of May 2014, can be countered by the observation that this review took too little account of the fact that Switzerland's deposit insurance scheme rests on two pillars – asset base protection and liquidity advances – and that it failed to take into account (for example) that esisuisse will have recourse to a direct debit procedure for the immediate collection of the funds promised by the banks from 2015 onwards. However, in order to address other concerns raised by the IMF, the following selective adjustments could be considered:

- Governance and independence of esisuisse. – Among other things, this could be achieved through a change in the composition of the Board of Directors. Work in this area is also being carried out as part of the overhaul of esisuisse's Articles of Association.

- Availability of data for the liquidator. – Here the necessary preconditions should be created to guarantee a seamless payout of funds. These include the necessary standards and infrastructure prerequisites to ensure that data is accessible at short notice.

- Payout deadline. – According to the 2010 dispatch, a deadline shorter than 20 working days is not always possible for technical reasons, as in the event of the insurance scheme being activated, the necessary closing bookings would first have to be executed on the reference date.[21] Nonetheless, a shorter deadline could be envisaged.

[21] BBl *2010* 4022.

- Information. Even if the public is familiar with the deposit insurance scheme, the degree of awareness could be increased yet further if, for example, a standardised information sheet were handed over to customers opening an account, or if the relevant information were summarised on account statements.

Regardless of this aspect, the scope of the deposit insurance scheme should not – contrary to the view put forward by the IMF – be expanded to include the Federal Employees' Savings Bank (*Sparkasse Bundespersonal*) or the Coop Mutual Savings Bank (*Coop Depositenkasse*).[22]

An improvement in depositor protection could ultimately also be achieved without any change to the financing system by raising the system ceiling from its current level of CHF 6 billion (cf. above under Section 1.1.).

1.3.2 Provision of collateral as first alternative

In the discussions that took place prior to the release of the legislative draft, consideration was given to the pledging (or equivalent form of provision) to a suitable body of securities that are essentially acceptable to the SNB as repo collateral[23] (and therefore easily converted into liquidity). By contrast, the SNB raised concerns about a pledging approach, particularly as it feared that this could result in it having to provide an institution with not just liquidity assistance, but also asset assistance in the event of a crisis. In addition, the SNB pointed out that this approach would have a pro-cyclical effect, and that the potential funds available would not suffice to deal with a major crisis scenario.

Under this approach, each bank would provide collateral to the insurance system[24] in keeping with its contribution obligation, whereby this collateral would be liquidated in the event of an insurance case and used for the payout of protected deposits.[25] – Schematically illustrated (in keeping with the phased increase in international requirements, with the payout deadline being shortened from today's 20 working days to 7 working days in the future):

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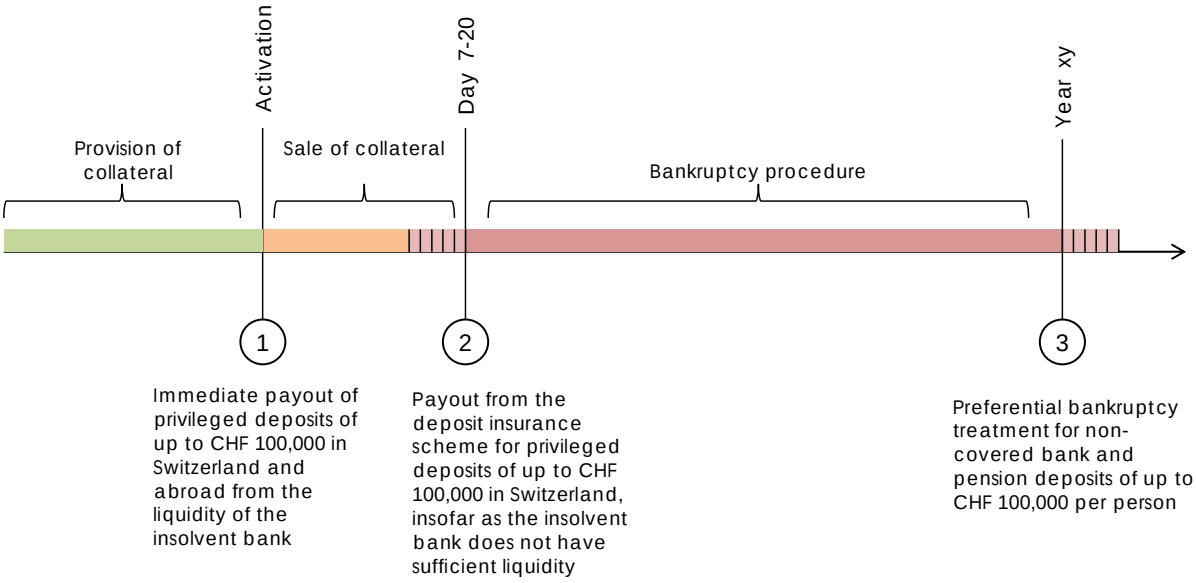
[22] Where the former is concerned, the criticism is unjustified, as the federal government is liable for these deposits, and it is generally accepted internationally that a state guarantee is equivalent to a deposit insurance scheme. As a cooperative, the latter benefits – just like other co-operatives, as well as associations and foundations – from a clause enshrined in Art. 3a BankA (with effect from 2015: Art. 5 BankO) that enables it to accept deposits as long as no activity is undertaken in the financial sphere, a non-commercial purpose or mutual self-help objective is pursued, the deposits are exclusively used for this purpose, and the term of the deposits amounts to at least six months. It may also be the case that the depositors in question are not considered to be part of the general public, and that the institutions are not subject to either authorisation or supervision, which may be viewed as being in keeping with the "Core Principles for Effective Banking Supervision" drawn up by the Basel Committee for Banking Supervision.

[23] Cf. Article 9, para. 1e NBA).

[24] In other words, corresponding to its prevailing share of overall insured deposits.

[25] For a more detailed description, please see the consultation draft of 2009 and the dispatch of 2010 on the current regulation.



Source: FDF

An **advantage** of the alternative involving the provision or pledging of collateral is that, compared to the current financing situation, there is above all an improvement in the accessibility of the liquid funds of the deposit insurance scheme, irrespective of the market situation or the particular predicament of an institution. Moreover, the securities provided as collateral can remain registered as assets on the balance sheets of the banks, with the income earned on these securities fully available to them.

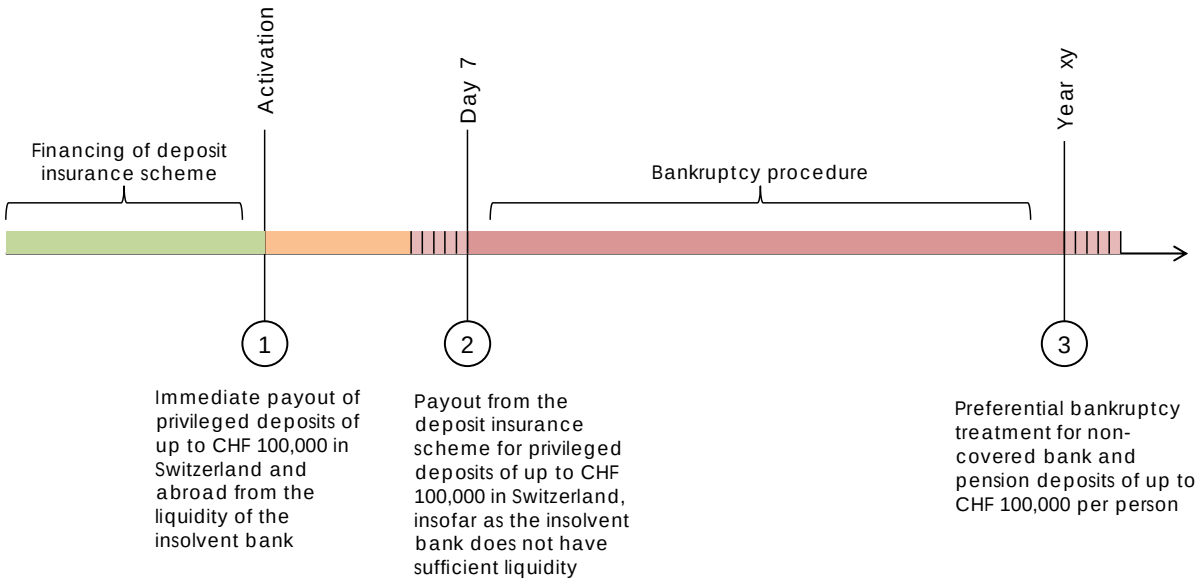
A potential **disadvantage** would arise if the collateral in question were not eligible as a constituent part of the liquidity a bank has to hold.[26] Moreover, in order to benefit from a lower liquidity outflow rate, this alternative would have to be considered to be "pre-financed through the regular collection of contributions of the banks holding protected deposits" (cf. sub-section 1.2).

1.3.3 Creation of an *ex ante* premium-financed fund as second alternative

The introduction of an *ex ante* financed fund for deposit insurance was clearly rejected in a consultation process on the corresponding legislative draft (including a second stage involving advance funding or a guarantee on the part of the Confederation) back in 2009, with only a minority appearing to be in favour of such a solution.

[26] This issue needs to be analysed in greater depth. Eligibility under existing law would apply as long as the securities pledged as collateral were not yet liable for existing liabilities (cf. Article 12 para. 1b and para. 3 of the version of the LiqO valid up to 31 December 2014). The same would apply to the lodging of a deposit with a guarantee-like characteristic. Eligibility in respect of the planned implementation of the quantitative standards on the holding of liquidity under Basel III would likewise be conceivable: Whereas high-quality liquid assets (HQLA) are essentially characterised by the fact that a bank can easily obtain liquidity via these assets – at very short notice and without any significant slump in their value (cf. Art. 15 para. 1 of the LiqO valid from 1 January 2015) – the standards of the Basel Committee also allow assets "which qualify for the stock of HQLA that have been pre-positioned or deposited with, or pledged to, the central bank or a public sector entity (PSE) but have not been used to generate liquidity" (Point 31 of the paper "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools" of the Basel Committee for Banking Supervision of January 2013.

This approach would involve the creation of a central fund to which every bank would contribute premiums according to their proportional contribution obligation under the insurance scheme.[27] [28] – Schematically illustrated (with a payout deadline of 7 working days):



Source: FDF

The **advantage** of the second alternative lies in the *ex ante* core element of the financing, as no funds would need to be built up once the scheme is activated (as is the case with the status quo) nor would any securities have to be sold by financial institutions (as is the case with the first alternative involving the provision of collateral). In other words, financial institutions would not face any additional, pro-cyclical costs. As a result, they would benefit from a lower liquidity outflow rate (cf. sub-section 1.2). In addition, the premiums make it possible for a proportion of the costs that arise as a result of the *de facto* state guarantee to be internalised within the systemically important banks.

A striking **disadvantage**, by contrast, is the fact that – depending on the specific design of the system – the accounting treatment of the contributions to the fund could lead to a situation whereby a provision would have to be made for the overall liability of an institution in which all payments that would have to be made were taken into account at their present values. This would give rise to significant costs, and primarily affect banks with a high market share in the deposit business, i.e. not just the two big banks, but also in particular the Raiffeisen and cantonal banks. Furthermore, costs would arise for the Swiss financial centre to the extent of the monies to be paid into the funds, along with the corresponding liquidity and opportunity costs, as well as the fund management costs.

1.4 Evaluation of the possible courses of action

The costs that would arise as a result of **selective adjustments** to the status quo (cf. the end of sub-section 1.3.1.) are likely to be negligible. However, it is unclear how the technical obstacles to a shorter payout deadline might be overcome, and indeed what costs this would

[27] In other words, corresponding to their prevailing share of overall insured deposits.
[28] For a more detailed description, please see the consultation draft of 2009 and the dispatch of 2010 on the current regulation.

then give rise to. In summary, there should be no delay in the implementation of the selective adjustments.

Where the costs of the three possible courses of action involving different forms of **financing** are concerned, these cannot be conclusively evaluated at the current time. In particular, assumptions would have to be made with respect to various aspects, such as the probability of an insurance case arising, the sum that would have to be paid out as compensation in the event of an insurance case arising, the interest rate margin of the banks, and any "haircuts" that might have to be accepted on the illiquid assets to be sold. It is likely that major differences would become apparent in the timing of the various costs incurred, as the annual costs of the status quo and the costs of a solution involving the provision of collateral would be subject to significant pro-cyclical fluctuations. The pro-cyclical effect would depend on the point at which provisions have to be made for payments to the deposit insurance scheme, as well as on the scope of such provisions. By contrast, the costs involved in an *ex ante* financed fund would be largely stable. In good times, the costs for the banks would be relatively high, whereas in bad times they would be significantly lower than in the case of the status quo or a solution involving the provision of collateral.

The **benefits** of the three financing alternatives from the point of view of depositors are obviously difficult to quantify. In particular, the question arises as to whether an enhancement or redesign of the financing of the Swiss deposit insurance scheme would materially improve its existing protective effect. The same is true for the evaluation of the situation from a political perspective (cf. in particular the parliamentary interpellation referred to in section 1.2).

In view of the fact that international developments are leaning strongly towards *ex ante* solutions, Switzerland should likewise review whether (and how) such a solution could be implemented. With the alternative of a pure fund solution having proved to be politically unviable in the not-too-distant past, the focus of such a review should be on a solution involving the provision of collateral.

With respect to the system ceiling of CHF 6 billion, any increase can essentially be reviewed irrespective of the way the scheme is financed.

Conclusion: An enhancement or redesign of Switzerland's deposit insurance scheme (as the second stage of depositor protection) should be reviewed in depth, taking into account the various possible courses of action. This should involve a comprehensive and detailed analysis that specifically takes into account the costs and benefits of the different alternatives.

1.5 Conclusions and recommendations

1.5.1 Recommendations on implementation

Increase comprehensibility and awareness of the deposit protection system

The three-stage deposit protection mechanism must be more comprehensively communicated to the relevant international organisations and bodies, so that (in particular) all stages of the mechanism are evaluated in any country review comparison. The relevant customers should be made aware of the protection that exists by the financial institutions themselves. Similar to the procedure that exists elsewhere, customers could be informed by their bank about deposit protection when opening an account, while the pertinent points could also be made clear on

account statements. Finally, it needs to be reviewed whether depositors should (among other things) be informed about deposit protection via a standardised information sheet, as is envisaged in the EU.

Recommendation 1: The understanding and degree of awareness of the entire depositor protection system should be increased, namely to the extent enjoyed by customers at an international level.

Improve the organisation of deposit insurance

Under the prevailing international standard, any institution that provides deposit insurance must have formal legal powers to fulfil its task, and must be operationally independent, transparent, and accountable. Both the governance and the independence of esisuisse need to be improved accordingly. In particular, adjustments are required with respect to the composition of the Board of Directors, as this is currently made up predominantly of individuals working for the bigger banks. Work in this area is already being carried out as part of the overhaul of esisuisse's Articles of Association. Attention should also be paid to the accurate formulation of this organisation's legal powers.

Recommendation 2: The organisation of esisuisse as the driving force of the deposit insurance scheme should be improved as part of the overhaul of its Articles of Association.

Swifter payout from the deposit insurance scheme

The payout deadline – including the date by which the required data must be exchanged – should be kept as short as possible. Although there are statutory provisions relating to the exchange of data between FINMA, its appointed administrator, and esisuisse – both in formal legislation and in the self-regulation guidelines recognised by FINMA – no deadline has been set. The necessary preconditions in this respect (including those relating to infrastructure) should be created to guarantee a seamless payout of funds. In order to arrive at an outflow rate that is lower than that prescribed by the quantitative standards on liquidity of the Basel III regime, calls are being made at international level for a payout deadline of a maximum 7 working days, among other things.[29] This objective of a shorter payout deadline, which has also been proposed by the IMF, should be pursued in Switzerland too.

Recommendation 3: Where payouts from the deposit insurance scheme are concerned, Switzerland should seek to shorten the target deadline from the current 20 working days to (ideally) just 7 working days. [30]

[29] From 2019 onwards, the maximum deadline in the EU is to be gradually reduced from the current 20 working days to 7 working days (whereby the latter is to apply with effect from January 2024 onwards).

[30] In contrast to other jurisdictions, the Banking Act refers to "working days" rather than "business days".

1.5.2 Recommendations for a review

Improve the organisation of the deposit insurance scheme

In order to improve the safety net for failures of prudential guidelines (including with respect to asset base protection), an improvement in financing should be reviewed, as should an enhancement of the deposit insurance scheme through the provision of collateral, and the introduction of a fund for deposit insurance that is (partly) financed on an *ex ante* basis. The appropriate bodies, relevant parameters, and repercussions (in terms of both costs and benefits) should be evaluated in detail as part of a comprehensive analysis. In this context, it should be ensured that the relevant collateral would be eligible with respect to the liquidity requirement that has to be adhered to, and that the deposit insurance scheme would consequently benefit from a lower liquidity outflow rate (3% instead of 5%). When evaluating the costs, it should specifically be reviewed whether (and to what extent) provisions would have to be formed for contribution obligations involving *ex ante* solutions, and how unnecessary cost consequences might be avoided when designing such a system.

Recommendation 4: It should be reviewed whether the deposit insurance financing model can be improved compared to the status quo through (at least partial) pre-financing, e.g. through an enhancement involving the provision of collateral or through the introduction of a fund financed on an ex ante *basis.*

Increase in system ceiling

Irrespective of the type of financing, an increase in the system ceiling should be subjected to a review. Of the various factors that need to be weighed up, particular attention should be paid to the additional costs that would arise for the banks compared to the additional system stability that would be achieved with a higher ceiling (number of additional institutions covered by the scheme's scope, etc.[31]).

Recommendation 5: The costs and benefits of a potential increase in the system ceiling should be reviewed.

[31] As mentioned above in sub-section 1.1, the current system is currently unable to withstand either a systemic crisis or the insolvency of one of the (according to the IMF: 10) largest banks.

2 Crisis planning for non-systemically-important banks

Banking crises and bankruptcies can have significant negative repercussions for both bank customers and the real economy. One way of preventing crises is to increase a bank's ability to withstand such events in the first place. In addition, the negative consequences of an insolvency can be reduced through preventative crisis planning measures. Past experience shows that the repercussions of a bank's financial difficulties can be cushioned through the appropriate preparatory measures.

This finding was also a driving factor behind the Swiss TBTF regulation. For example, the legislator now envisages systemically important banks taking comprehensive measures to prepare for a crisis scenario. On the one hand, systemically important banks have to draw up emergency plans in which they set out how the continuation of systemically important services is to be guaranteed in a crisis situation. In addition, systemically important banks have to draw up stabilisation plans ("recovery plans"). Here the banks set out the measures they intend to apply to stabilise the bank in the event of a crisis so that they can continue their business activities without the need for government intervention. Both the above-mentioned plans require the approval of FINMA. Furthermore, FINMA itself draws up a Resolution Plan for each systemically important bank, in which it sets out how any restructuring or liquidation that it has decreed can be implemented. The bank must submit to FINMA the information needed to draw up this plan.

The need to prepare appropriately for a crisis does not apply to systemically important banks alone, however.[32] The stability of the Swiss financial system could be further strengthened if non-systemically-important banks likewise had to draw up crisis plans containing the corresponding measures to be taken in the event of a crisis. In keeping with a risk-based approach, the level of detail that these crisis plans should incorporate would depend on the size, complexity, and interconnectedness of the institution in question. FINMA does not currently have the statutory powers to demand cooperation from the banks in this area.

The trend towards a broad deployment of the crisis planning toolkit can also be observed internationally. In the EU, for example, the Recovery and Resolution Directive (RRD) requires all banks to draw up so-called Recovery and Resolution Plans. Simpler requirements are to apply to small institutions, however. Specifically, the resolution authorities will determine the level of detail required in such plans on an individual basis for the relevant institutions. In the US, financial institutions with assets of more than USD 50 billion[33] have to draw up resolution plans at regular intervals.

Recommendation: A requirement for selected non-systemically-relevant banks to draw up crisis preparations and plans too, together with the formal powers needed to enforce such a requirement, could make a significant contribution to the stability of the Swiss financial system. It should therefore be reviewed whether a legal basis that establishes the corresponding powers should be created, and which financial institutions it would cover.

[32] Moreover, major insurance companies should likewise draw up plans for a crisis scenario.

[33] Transposed to Switzerland, this would be the equivalent of a balance sheet total of some CHF 1.7 billion as a proportion of GDP (GDP source: Wikipedia: US = USD 17,371 billion, CH = USD 650 billion), consulted on 1 September 2014

3 Tax incentives to take on debt as risk to stability

3.1 Introduction

The Swiss tax system favours debt capital over equity capital, and therefore creates incentives to take on debt. This distortion is particularly apparent in the taxation of natural persons. As debt capital is typically provided by financial institutions, tax incentives to take on increased debt can be problematic with respect to the stability of the financial system (cf. Appendix 1 on the real estate market). In particular, when it comes to the taxation of natural persons who hold owner-occupied residential property, there are significant tax incentives to use borrowed money (i.e. debt) rather than equity. These incentives inherent in the tax system should be viewed critically insofar as they encourage private households to opt for a higher degree of indebtedness than they would in a world without taxes. This distortion in favour of indebtedness may make households more vulnerable to crises and external shocks. At the same time, it should be borne in mind that these liabilities can be set against substantial assets when viewed in overall terms. However, there are considerable discrepancies in Swiss homeowner debt-to-equity ratios.

3.2 Need for adjustment

Financial decision-making is essentially the responsibility of every individual. This also involves ensuring an adequate capital base (i.e. financing with equity) so that any losses can be absorbed and problems such as insolvency or overindebtedness avoided. By contrast, a high degree of debt financing leads to higher interest and amortisation payments, which have to be met even in economically difficult times. In addition, there is always the risk of debt having to be refinanced at less favourable terms for the borrower due to difficult economic circumstances confronting the borrower, the creditor, or the economy at large.

In the case of a high proportion of debt financing, the dependency on external lenders increases, as does (as a consequence) the degree of susceptibility or vulnerability in the event of shocks, crises, or economic fluctuations. Such a shock may be systematic in nature, such as a rise in interest rates or a general economic slump, or specific to the individual, as would be the case (for natural persons) in the event of losing one's job or going through a divorce.

As a result of greater vulnerability due to tax distortions in favour of indebtedness, risks to the stability of the financial system can result (depending on the proportion of loans on the balance sheets of banks). In the event of a sufficient number of borrowers no longer being able to service their debts to lending banks (i.e. the providers of debt capital) in a crisis, this would lead to losses that could threaten the stability of individual financial institutions and indeed the financial system as a whole.

In Switzerland, these indebtedness incentives are particularly apparent in the case of residential property financing. Switzerland has a high level of mortgage indebtedness in an international comparison, with residential mortgage lending now amounting to just under 120% of gross domestic product (GDP). A key factor in this high ratio is likely to be the tax incentive to take on mortgage debt and the corresponding disincentive to pay it off. In addition to maintenance and administration costs, mortgage interest is viewed as a "resource cost", and in keeping with the logic of the Swiss tax system can be offset against the taxation of so-called imputed rental value, which is considered "natural income". Due to the fact that mortgage interest is deductible from income for tax purposes, while capital gains on personal property are tax-exempt, there is a clear tax incentive to keep gross debt high. For reasons of tax optimisation, many Swiss households therefore do not repay their mortgages, or do so only to a limited or indirect extent. As a result, Swiss households are heavily exposed to market risks (e.g. a sharp rise in interest rates), which in the case of a shock could lead to an accumulation of payment difficulties for mortgage borrowers and hence price erosion in the real estate market, which in turn could put the banks and the financial system as a whole in jeopardy.

Moreover, historical experience shows that more than two thirds of systemic bank crises are preceded by collapses in real estate values.[34]

3.3 Recommendations

Recommendation: The tax system should pursue the principle of creating no incentives for indebtedness (i.e. the incentive to finance assets with debt rather than equity). It is recommended that an investigation be undertaken into the extent of the indebtedness incentives in the Swiss tax system and the resulting risks to financial stability. Here a specific focus should be placed on the mortgage indebtedness of homeowners, which is particularly high in an international comparison. On the basis of this investigation, measures should be drawn up and reviewed with respect to how the current system could be brought more into line with the principle of the tax neutrality of the financing structure[35].

[34] See for example Oscar Jorda, Moritz Schularick and Alan Taylor (2014): The Great Mortgaging: Housing Finance, Crises and Business Cycles, NBER Working Paper No. 20501, September 2014.
[35] The representative of the Swiss Trade Association (SGV) opposed this view.

4 Systemic importance of the Swiss insurance sector

4.1 Significance of the insurance business in Switzerland

The insurance sector makes a significant economic contribution, and is an important pillar of the Swiss financial centre. Measured in terms of value creation, its economic contribution has risen consistently over the last decade, from CHF 17 billion to CHF 28 billion[36]. In addition, the average insurance sum per person in Switzerland is very high, namely around CHF 7,100. This equates to combined premium revenues of CH 27 billion in indemnity and life insurance.[37] Total premium volumes amount to 14.1% of GDP, almost twice the equivalent figure of the European Union.[38] Moreover, life insurers in particular play a key role in the occupational benefits system. Finally, insurers are interconnected with the remainder of the financial sector as a result of their significant investment volumes, which makes them undeniably exposed to risks of contagion.

As a result of its significance and the economic function of insurance, the insurance industry is also subject to comprehensive oversight and regulation, and should also be scrutinised for potential systemic risks. However, it would be wrong to equate the economic significance of this sector with systemic importance unequivocally, nor should too much be read into the fact that the insurance sector came through the financial crisis of 2008/09 predominantly unscathed.

The issue of systemic importance in the insurance sector was tackled back in 2010 by the Commission of Experts for limiting the economic risks posed by big companies[39]. The conclusions reached by the Commission related to the Swiss domestic market, and were therefore based on a purely national perspective.

In the meantime, progress has been made internationally on work to tackle systemic risks in the insurance area. In July 2013, the Financial Stability Board (FSB) – acting on behalf of the G-20, in consultation with the International Association of Insurance Supervisors (IAIS) and the relevant national supervisory authorities – classified nine insurance companies as G-SIIs, or global systemically important insurers, for the first time. In addition, regulatory measures to contain the risks posed by G-SIIs were published. These include firstly stronger oversight, particularly consolidated group oversight, which also encompasses holding structures and a liquidity management requirement. Secondly, more effective resolution is envisaged, as per the FSB's Key Attributes of Effective Resolution Regimes for Financial Institutions[40]. For example, recovery and resolution plans must be drawn up that take into account insurance-specific aspects. Thirdly, capital requirements are being introduced, including enhanced requirements for G-SIIs. Measures in the area of international capital requirements have yet to be drawn up.

In the light of these international developments and the time that has elapsed since the final report of the Commission of Experts for limiting the economic risks posed by big companies was published, the Commission's conclusions should be reassessed. As a first step, the fundamental considerations with respect to the emergence of risks in the insurance sector have been set out below. In the second sub-section, the various international and national

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36 SIF, Key figures Swiss Financial Centre, April 2014.

37 http://www.svv.ch/de/zahlen-und-fakten

38 IMF, Financial Sector Stability Assessment (published at the beginning of May 2014).

39 Also known simply as the "Too Big To Fail" Commission of Experts. Final report of the Commission: https://www.sif.admin.ch/sif/en/home/dokumentation/berichte/expertenkommission--too-big-to-fail-.html

40 http://www.financialstabilityboard.org/publications/r_111104cc.pdf

approaches for determining systemic importance are compared with one another. The report concludes with a summary of the potential need for action at national level.

4.2 Systemic risks in the insurance sector

4.2.1 Fundamental considerations

The question of whether systemic risks exist in the insurance sector too took on particular significance in the aftermath of the 2008/09 financial crisis. The financial crisis showed that systemic risks can emanate from the insurance sector with the effect of exacerbating such a crisis. Similarly, the insurance sector has a high degree of sensitivity to systemic risks coming from other areas of the financial centre, for example in the area of investments: In the financial system, insurers are key investors in bank bonds, and are also involved in the short-term financing of banks via commercial paper and securities financing transactions. Moreover, dislocations in the financial markets could motivate policyholders with redeemable life insurance policies to surrender their policies.

However, the question of systemic importance in the insurance sector is very different to this issue in the banking sector. Like banks, an insurance institution can be systemically important. This is above all driven by interconnectedness and the scope of non-insurance and capital-market-related commercial activities[41] (cf. sub-section 4.3.1.).

However, the potential "channels of contagion" in the insurance sector are rather different. For example, losses of confidence play a rather subordinate role, particularly in the traditional insurance business. Moreover, when analysing the loss potential of an insurance company failure, the smaller size and lower transaction volumes of the insurance sector have to be taken into account.

A number of studies on the issue of systemic risks in the insurance area have been carried out in recent years[42]. What emerges from the studies is a consensus: Systemic risks in the insurance sector are primarily to be found in the non-traditional insurance business and in the capital-market-related business that does not relate to the insurance business proper, whereas almost no systemic risks are to be found in the so-called traditional insurance business. As a consequence, if systemic risks are to be contained, the measures drawn up must be specifically geared around the characteristics and origin of these non-traditional activities.

"Traditional" is the term used to describe insurance activities that are typically characterised by the concept of insurable risk, and are subject to the principle of insurability.[43] In addition, traditional business is characterised by actuarial practices in the areas of risk and pricing, and is subject to separate accounting. By contrast, capital-market-related business that does not relate to the insurance business proper (non-traditional, non-insurance business, NTNI) is more closely tied in with the financial markets, and typically contains elements of maturity transformation, external indebtedness, and the issuing of guarantees to policyholders. Examples of this include the insurance of mortgages, exotic financial guarantees in life insurance products, the securitisation of insurance risks, and the writing of corporate default

41 The IAIS uses the term non-traditional, non-insurance (NTNI) business in this context.

42 FINMA WP 6/2010 http://www.finma.ch/e/finma/publikationen/documents/wp_juni2010_systemische-risiken-im-versicherungssektor_20101004_e.pdf, Geneva Association, Systemic Risk in Insurance, https://www.genevaassociation.org/media/99228/ga2010-systemic_risk_in_insurance.pdf

43 Cf. Para 24 Op. Cit. IAIS Insurance and Financial Stability: "Among other criteria, insurability requires losses to be well defined. They must be accidental, i.e. not controlled by the insured, they must occur randomly, and they must be subject to the law of large numbers. The pooling of a large number of similar or homogenous exposures is essential to the technique of insurance. It allows the insurer to manage risks and offer a valuable proposition to its policyholders."

swaps. Traditional insurance business therefore does not necessarily comprise existing business or products that have been offered for a long period of time.

Making a clear differentiation between traditional business on the one hand, and non-traditional and capital-market-related business that does not relate to the insurance business proper on the other, is not always that simple in practice. The IAIS has accordingly issued principles for identifying and classifying certain insurance businesses, whereby these principles are currently being further refined. This is made more difficult by the fact that, firstly, certain insurance activities or products lie right on the boundary between traditional business and non-insurance or capital-market-related business, and secondly, insurance groups frequently pursue the NTNI business alongside their traditional insurance business. These activities may be operated from legal entities that are neither regulated nor directly supervised.

4.2.2 Systemic risks in the traditional insurance business

There are a number of reasons[44] why the Swiss TBTF Commission of Experts and international standard-setters such as the IAIS have concluded that virtually no systemic risks arise from the traditional insurance business. This can be highlighted on the basis of the predefined criteria drawn up by the FSB.

Lack of substitutability

The substitutability of insurance functions and insurance companies is multifaceted. In particular, the takeover of a failed company by a healthy company or the transfer of an insurance portfolio to a temporary or definitive hive-off vehicle (portfolio transfer) may occur.

Moreover, insurance portfolios can form part of an orderly wind-up process. In such a scenario, an insurer discontinues new business and limits its further activity to fulfilling the claims of policyholders as they fall due. In most cases, this process will take several years. As the insurer is obliged to form so-called actuarial reserves for the liabilities it has taken on and to cover these with assets, an orderly winding-up process does not usually entail major problems. In Switzerland, actuarial reserves and the corresponding tied assets therefore form part of the liability substrate in the event of insolvency.

Finally, the financing model of insurers involves a premium payable in advance. The contractual provision of payments to policyholders is dependent upon the occurrence of an insured event. Short-term substitution is therefore necessary. As an additional factor, traditional insurance risks such as natural catastrophes, third-party liability, accidents, and deaths are typically idiosyncratic and as a rule uncorrelated with the economic cycle. The risk of an "insurance run" is not something that exists in indemnity insurance; in life insurance, a run is possible insofar as a premature termination of an agreement may be possible, depending on the product, but this typically involves significant financial losses for the policyholder.

Interconnectedness

Unlike the interbank market, the interconnectedness of insurance sector companies involved in the traditional insurance business is low when measured in terms of the number of transactions and their overall volume. Moreover, it is hierarchical rather than horizontal like the banking business. In other words, interconnectedness in the insurance sector primarily arises

[44] Other sources too have grappled with this topic; in addition to the investigations of FINMA, particularly worthy of mention here are the IAIS reports on Insurance and Financial Stability http://www.iaisweb.org/view/element_href.cfm?src=1/13348.pdf and Reinsurance and Financial Stability http://www.iaisweb.org/view/element_href.cfm?src=1/16023.pdf

through the (partly global) reinsurance of insurance risks. When viewed from a national perspective, the issue of hierarchical interconnectedness loses even more relevance.

This essentially involves a general observation of both markets. For an individual insurer, however, a problematic degree of interconnectedness may well arise at institutional level, for example through a strong dependency on the reinsurer. This interconnectedness increases the degree of loss in a failure scenario ("impact given failure"), as the danger of contagion increases. Accordingly, the FSB and IAIS clearly take into account interconnectedness between insurers and the rest of the financial sector (see sub-section 4.3.1. and Appendix) when evaluating systemic importance.

Size

In addition to substitutability and interconnectedness, an insurer's volume of business also has to be established. Size is a compounding factor with respect to loss potential, but does not give rise to systemic importance on its own. Large business volumes exacerbate the potential negative repercussions of the financial difficulties of an insurer for the financial markets and the real economy. There is therefore a correlation between size and potential systemic importance. However, if the degree of interconnectedness is low and there is substitutability potential, as is the case in the traditional insurance business, the size of a company plays only a subordinate role in the evaluation of systemic risk.

4.2.3 Systemic risks in the NTNI business

The situation is different in the case of non-traditional insurance activities and financial-market-related non-insurance business.

Lack of substitutability

NTNI activities typically involve transactions that are characterised by maturity transformation, external indebtedness, or the issuing of guarantees. To this extent, these activities exhibit the same problems of substitutability as the banking and capital market business. A loss of confidence in the NTNI business can rapidly lead to the same kind of problems that are encountered in the banking area. In contrast to traditional insurance business, there is often insufficient time left for an orderly resolution.

Interconnectedness

The NTNI business increases interconnectedness both within the insurance sector and with other parts of the financial industry. The non-insurance business comprises in particular the banking business and management of investment companies and funds. The capital-market-related business comprises areas such as credit default swaps (CDS), credit insurance, financial guarantee insurance, and certain forms of securitisation. In the recent crisis, for example, the assumption of bank credit risks by insurers via the issuance of CDS and maturity transformation transactions turned out to be problematic.

Depending on the scope of activities, considerable market and liquidity risk can arise here. This in turn increases the necessity of pro-cyclical or complex hedging transactions and their management – e.g. preparing collateral or margining processes – as well as (in some circumstances) the danger of so-called "fire sales". This has the effect of increasing the degree of interconnectedness and therefore also increasing dependency on the capital and financial markets. This can be problematic from the perspective of system stability.

Size

Size plays an important role in the NTNI area. The greater the scope of these activities, the higher the loss potential in the event of insolvency and the greater the potential risks of contagion within the financial sector.

4.2.4 Summary

This brief overview highlights that the traditional insurance business does not involve any systemic risks *a priori*, whereas NTNI activities clearly harbour the threat of negative repercussions arising for the financial market or the real economy in the event of bankruptcy.

Even if the insurance bankruptcies of the past have typically been associated with the NTNI area, it would be wrong to categorise systemic importance around this yardstick alone. In particular, it is always important to bear in mind the interconnectedness of insurers due to the loss potential involved: The past does not always permit reliable forecasts to be made for the future, and the persistent low-interest phase is also posing challenges to the traditional insurance business. Otherwise the systemic importance of insurers could simply be removed by prohibiting NTNI activities.

4.3 Assessment of systemic importance

The various different approaches to the assessment of systemic importance and the corresponding results are listed below. First of all, international developments are described, which evaluate systemic importance from a global perspective. In a second step the focus switches to the Swiss market.

Any assessment of systemically important insurers can only ever be a snapshot picture in time. The business models of insurers are subject to change, which also means their risk profiles will change over time. Indeed, GSIIs are designated on an annual basis by the FSB and the IAIF, and changes to these designations can also occur as a result of changes in corporate strategy. The international benchmark is therefore not static, as is only logical.

4.3.1 International

The FSB framework for systemically important financial institutions[45]

The FSB has developed a framework for the assessment of systemic importance which covers all financial market participants (banks, insurers, non-bank and non-insurer systemically important institutions).[46] The FSB's framework is strictly focused on the extent of potential losses in the event of insolvency, and accordingly excludes the probability of occurrence[47]. For purposes of defining systemic importance, the criteria of size, interconnectedness, and the lack of substitutability are therefore key. Indicators that flag up systemic risks typically comprise a high degree of indebtedness, liquidity risks, maturity incongruities, and complexity of corporate structure, and occasionally also certain products or transactions. So far, the FSB

45 https://www.financialstabilityboard.org/publications/r_101111a.pdf

46 FSB definition: "Global SIFIs are institutions of such size, market importance, and global interconnectedness that their distress or failure would cause significant dislocation in the global financial system and adverse economic consequences across a range of countries. Standards for large global financial firms should be commensurate with the system-wide expected losses that their failure would produce."

47 Experience shows that this way of thinking represents a considerable hurdle for many observers, both on the regulatory side and within the financial industry. There is a tendency to want to combine the probability of insolvency on the one hand with the extent of losses that this would give rise to on the other, and indeed to confuse the two.

has designated both global systemically important banks (G-SIBs) and global systemically important insurers (G-SIIs). Discussions over the designation of systemically important financial institutions that are neither banks nor insurers (NBNI-SIFIs) are still ongoing.

Recommended measures to contain systemic risks focus in particular on enhanced supervision, higher loss absorption capacity, and an improvement in resolvability.

G-SII identification method and regulatory measures of the IAIS

Building on the FSB framework, the International Association of Insurance Supervisors (IAIS) has developed an evaluation method for measuring the systemic importance of insurers. In the summer of 2013, moreover, it published a number of regulatory and supervisory measures designed to contain the systemic risks arising through G-SIIs. Based on the identification and methodology of the IAIS, the FSB categorised nine insurers as G-SIIs, confirming the corresponding measures.[48]

The designation method of the IAIS rests on five indicators: Size, global business activity, interconnectedness, scope of NTNI activities, and (a lack of) substitutability. The weighting of these indicators (see details in Appendix) places particular emphasis on the aspects of interconnectedness (40%) and the extent of NTNI business (45%). The remaining weighting is spread equally between the other indicators (5% each). This overweighting is driven by the following considerations: On the one hand, systemic risks stem above all from the NTNI business (cf. sub-section 4.2.3.). On the other, interconnectedness is crucial from the perspective of loss potential, since it can lead to the losses of one or several insurers spreading to (or having an impact on) other protagonists, thereby making them systemically important. Viewed from this perspective, the overweighting of these two categories is consistent. The insurance population is heterogeneous, and specific transactions are inevitably underestimated or overestimated in an indicator-based assessment. For example, financial guarantee insurers will inevitably be flagged up on the basis of indicators that take into account this kind of business.

Although the framework applies to both insurers and reinsurers, no reinsurer has yet been designated systemically important from a global perspective. Reinsurance companies are essentially evaluated on the basis of the same criteria. However, where the interconnectedness criterion is concerned, the identification methodology here involves the application of a specifically reinsurance-based indicator, in order to take account of this particular business model.

The IAIS designation refers explicitly to global systemically important protagonists. The development of international recommendations for the supervisory authorities of domestic systemically important insurers (D-SIIs) will not be pursued until work on G-SIIs has largely stabilised. In contrast to the banking sector, therefore, this domestic focus is accorded lower priority.

[48] https://www.financialstabilityboard.org/publications/r_130718.htm

Ratings agencies

When drawing up their credit ratings, the ratings agencies do not assume that insurers have "too big to fail" status.[49] They have not identified any need for the state to step in to bail out insurers, and have therefore identified no competitive distortions.

Although the rating agencies have been observing industry developments in the wake of the first G-SII designations in the summer of 2013, particularly the planned introduction of higher loss absorbency (from 2019 at the earliest), Standard & Poor's in particular has confirmed that a distinction continues to be made between banks and insurers when drawing up credit ratings. The ratings agencies do not see any *de facto* state guarantee, nor do they see any threat to substitutability in the insurance sector[50].

4.3.2 Switzerland

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

Back in 2010, the Commission of Experts for limiting the economic risks posed by large companies in Switzerland, consisting of representatives from the private sector, the authorities, and academia, tackled the issue of systemic importance in the Swiss economy. At the time of their deliberations, the Commission of Experts reached the conclusion that only the banking sector – and specifically the two Swiss big banks – should be designated too big to fail at the point of evaluation, i.e. liable to trigger enforced state intervention.

The starting point of the analysis was the definition of systemic importance: A company should be classified as systemically important if (i) it provides services that are essential to the economy and (ii) other market participants are not in a position to replace these services within a timeframe that is tolerable for the economy. The Commission of Experts conducted its analysis from a national perspective, explicitly evaluating the risks for the Swiss economy and the Swiss financial system[51].

The Commission of Experts found that the insurance sector was likewise of great importance to the overall Swiss economy, but arrived at the conclusion that no *de facto* state bailout guarantee existed in this area. In arriving at its conclusions, the Commission of Experts applied the same criteria as the FSB. With the respect to the issue of size, the Commission of Experts found that insurance companies are considerably smaller than the banks, and that their loss potential is lower accordingly. It argued that the issue of interconnectedness arises above all through reinsurance, and that the corresponding relationships are hierarchical when compared to the multifaceted interconnectedness that exists in the interbank market. Finally, the Commission stressed that the substitutability of insurance functions and insurance companies is more multifaceted. In particular, a failed company can be taken over by a healthy company or by a hive-off vehicle (portfolio transfer), while the orderly resolution of a failed company is also possible. Of particular importance in this context are the actuarial reserves and the tied assets that serve as a liability substrate in the event of an insolvency.

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[49] The same is true of Swiss insurers.

[50] "(…) This differentiation reflects our opinion that whereas many banks can expect to receive direct government support under stress, insurers cannot." Taken from S&P's RatingDirect: Possible Ratings Implications for Global Systemically Important Insurers, 19.07.2013; see www.standardpoors.com/ratingsdirect. S&P essentially believes that its position on the G-SII issue has been vindicated since 2011.

[51] Cf. Article 7 BankA: "Systemically important banks are banks, financial groups, and bank-dominated financial conglomerates whose insolvency would significantly damage the Swiss economy and the Swiss financial system."

In its analysis, the Commission of Experts also saw its analysis borne out by the view expressed by rating agencies, namely that no state guarantees exist for insurance companies that require factoring into their credit ratings.

However, the Commission of Experts did identify potential negative repercussions for the system of occupational benefits in the case of life insurance companies, which provide the backbone for the institutions of Switzerland's "Pillar 2" retirement system. In the Commission's view, this could make state support politically necessary, but it did not go so far as to argue that a state bailout guarantee exists in this area.

Although insurance companies are not deemed to be systemically important from a national perspective, the Commission of Experts did argue for targeted improvements to increase the resilience of this sector, given its significance for the overall economy. Among other things, this included the consistent introduction of the Swiss Solvency Test (SST), improvements in liquidity management, and an improvement in insolvency provisions.

Evaluation of the situation at beginning of 2014

The Commission of Experts published its final report containing the analysis of the domestic insurance market in October 2010. The evaluation method of the IAIS, which was based on the principles of the FSB, was published by the FSB in the summer of 2013, together with an initial list of G-SIIs. In the light of international developments and given the time that has elapsed in the meantime, there is now a clear need for further evaluation of the Swiss insurance market.

If the criteria of the FSB, together with the principles elaborated by the IAIS, continue to form the basis of analysis as in 2010, the conclusions arrived at by the Commission of Experts continue to hold at national level. And for the following reasons:

There have been no significant changes in terms of institutional size or market share compared to 2010. The degree of interconnectedness of the insurance sector in Switzerland continues to be low: Interconnectedness arises first and foremost through the customer relationships of the direct insurers and to a lesser extent via reinsurance, which is why global surveys continue to require qualification at national level[52]. The degree of interconnectedness of insurers with the remainder of the Swiss financial centre is also fairly low. Among other things, both the prevailing investment guidelines (FINMA Circular 08/18) and the SST have the effect of ensuring a diversified and conservative investment policy. Substitutability likewise remains essentially feasible.

If the FSB's criteria are applied, the high market concentration of life insurers in occupational benefits continues to be problematic. The two largest life insurers have a combined market share of around two thirds in occupational benefits, while the market share of these two providers in the overall life insurance business amounts to 54%. The insolvency of a leading life insurance company could have repercussions for the occupational benefits system, particularly where the full insurance model preferred by the SME sector is concerned. Under certain circumstances, the state would be under political pressure to step in, for example if a large number of SMEs were unable to find a provider for the implementation of occupational benefits and the BVG National Substitute Pension Plan were unable to insure a very large number of SMEs anew. No systemic risk to the financial centre exists here, however. There is no *de facto* obligation for the state to continue this business. The insolvency of such a life

[52] Viewed globally, reinsurance cessions account for 5.6% of the non-life area and 2.4% of the life area (source: Op.Cit., Systemic Risk in Insurance). Although the figures date from 2008, they are nonetheless stable. In addition, Swiss regulation obliges insurers to diversify their reinsurance portfolios.

insurer would have the same repercussions for customers as an investment loss, but the repercussions for the financial market as a whole would be limited when viewed from a purely quantitative standpoint.

Equally, when determining their credit ratings, rating agencies still do not base their assumptions on insurers having "too big to fail" status; Standard and Poor's even believes its decision to continue to make this distinction between banks and insurers when drawing up its credit ratings has been vindicated.

In addition, Swiss insurers continue to scale down their non-insurance activities. Moreover, they now have a risk-sensitive and transparent solvency instrument in the form of the SST, which supports the financial stability of insurance companies and has made certain product categories unattractive.

However, the Swiss regulator has not imposed any bans on specific high-risk activities. Switzerland continues to stand by its liberal basic stance that decisions on business models and product mix are a matter for companies themselves. For example, no insurer has formally renounced non-insurance business that might have repercussions for systemic stability, such as the issuance of CDS. Legal entities that pursue non-insurance business within an insurance group, and which enjoy guarantees from the parent company or elsewhere, can also represent a threat to the entire insurance group under certain circumstances. However, Switzerland can clearly fall back on approval conditions and other means of exercising an indirect impact on changed business models (e.g. capital adequacy, group oversight).

Even if it may be concluded that no Swiss insurer is systemically important from today's standpoint, the potential threat of systemic risks must nonetheless be continuously re-evaluated. Deliberating on the application of G-SII indicators and weightings at national level with a view to undertaking an appraisal of the existing assessment of the status quo would be one way of achieving this.

Quite aside from the national perspective, the question arises as to whether a possible classification of the Swiss insurer as a G-SII by the FSB would also entail systemic importance in Switzerland. This is not necessarily the case. There is a difference between these two evaluation approaches. The FSB focuses on the global financial system, Switzerland on the national. Certain Swiss insurers are internationally significant players, with globally-oriented business activities and the corresponding degree of global interconnectedness. However, the largest international insurers tend to be small to medium-sized players in the Swiss domestic market, including where market share is concerned. Viewed generally, the insurance sector has a very international setup. The Swiss insurance industry generates approx. 75% of its premium revenues from abroad, and more than 50 percent of its assets relate to foreign business.[53] A failure of these institutions would not necessitate state intervention from a national perspective.

4.4 Conclusions and need for action

The insurance industry is of great significance to the Swiss economy, to which it provides important services. The nature of the traditional insurance business is such that systemic risks generally do not arise. By contrast, systemic risks can manifest themselves in non-traditional insurance activities and in non-insurance, capital-market-related business. Frequently these activities are pursued in one part of an institution, which gives rise to intragroup contagion risks.

[53] IMF FSSA.

On the basis of the definition applied by the FSB and the Commission of Experts for limiting the economic risks posed by large companies, there are currently no systematically important insurers from a domestic perspective. Neither their size, degree of interconnectedness, or lack of substitutability would suggest that any *de facto* state guarantee exists, a thesis supported by the stance taken by the ratings agencies. Whether or not state intervention in Switzerland's occupational benefits system could become necessary on the basis of the role played by life insurers should not be viewed from the standpoint of systemic importance, as it is a socio-political question.

Nor do international developments change the picture with respect to the absence of systemic importance in the national insurance sector. Switzerland does of course bear responsibility for global financial stability, particularly in the event of a Swiss institution one day being designated a G-SII by the FSB. However, such a global designation would have no direct impact on the status of such a company from a national perspective, since internationally significant insurers remain small to medium-sized players in the national market, and pursue little NTNI business.

If a Swiss insurance group were to be designated a G-SII, the question arises as to whether regulatory or oversight-specific measures would be necessary. As things stand, all policy measures of the IAIS can already be mapped in the current Swiss legal and supervisory system. No specific regulatory regimes of the kind that exist in the banking area are therefore required.

According to the IAIS, G-SIIs or their supervisory authorities must implement the following specific "policy measures"[54] by 2019:

- Intensified oversight: Stronger group-wide oversight to support rapid implementation of requirements and close collaboration between oversight and companies.
- Recovery and resolution: Establishment and implementation of effective recovery and resolution plans in keeping with the Insurance Annex to the Key Attributes of Effective Resolution Regimes for Financial Institutions ("Key Attributes") of the FSB.
- Capital standards: Elaboration of globally standardised capital standards. Three capital standards are being drawn up on a staggered basis: The Basic Capital Requirement (BCR) is to be implemented as a harmonised basis for future standards from 2015 to 2019; the higher loss absorbency (HLA) for G-SIIs will build on the BCR and be binding from 2019 onwards; the international capital standard (ICS) is a group-wide risk-based capital standard that will apply from 2019 onwards to all internationally active insurance companies (including non-G-SIIs). The ICS is designed to replace the BCR as the basis for HLA at a later point in time. Work is currently advancing at different rates of progress.

These three policy measures are already being implemented in the existing Swiss insurance supervisory system. More intensive oversight could be introduced via FINMA's supervisory categories. These supervisory categories directly determine the intensity of oversight by FINMA and the use of supervisory instruments. As things stand, the highest category (Category 1) is empty. The toolkit for insurance company recovery and resolution should be adapted to the new international parameters. A first step in this respect could be taken with a selective revision of the Insurance Supervision Act (ISA) annexed to the Financial Market Infrastructure Act (FMIA), which has been passed to parliament for deliberation. Under this revision, FINMA is also to be given responsibility for managing bankruptcies of insurance groups and conglomerates, insofar as these companies fulfil an essential function with respect to activities that require approval. Higher potential international capital requirements for Swiss G-SIIs were reflected in the Swiss Solvency Test via modified intervention thresholds. With the SST, Switzerland already has a modern solvency measurement instrument.

[54] www.iaisweb.org/view/element_href.cfm?src=1/19150.pdf

A lack of systemic importance should not be considered the same as a complete absence of risk, however. Non-insurance and capital-market-related transactions also form part of the business activity of Swiss insurers, albeit currently to a reduced extent. The scope and characteristics of this business conducted by Swiss insurers should accordingly be monitored, whereby special attention should be paid to intragroup interrelationships. Irrespective of this aspect, it would appear logical to draw up preventive measures such as crisis preparations and manuals for crisis management (RRPs), and to ensure the direct supervisory responsibility of FINMA with respect to the uppermost group company. This would allow latent risks to be restricted and would also be in harmony with the legislative mandate to ensure systemic stability and the protection of policyholders.

Appendix: IAIS evaluation method

Category	*Category weighting*	*Individual indicator*	*Indicator weighting [for 2011 data]*
Size	5%	Total assets	2.5%
		Total revenues	2.5%
Global activity	5%	Revenues derived outside of home country	2.5%
		Number of countries	2.5%
Interconnectedness	40%	Intra-financial assets	5.7%
		Intra-financial liabilities	5.7%
		Reinsurance	5.7%
		Derivatives	5.7%
		Large exposures	5.7%
		Turnover	5.7%
		Level 3 assets	5.7%
Non-traditional insurance and non-insurance activities	45%	Non-policy holder liabilities and non-insurance revenues	6.4%
		Derivatives trading	6.4%
		Short term funding	6.4%
		Financial guarantees	6.4%
		Minimum guarantee on variable insurance products	6.4%
		Intra-group commitments	6.4%
		Liability liquidity	6.4%
Substitutability	5%	Premiums for specific business lines	5%

5 Shadow banks

The shadow bank system has been broadly defined as "credit intermediation involving entities and activities outside of the regular banking system"[55]. Shadow bank activities can have a positive impact on the financial system with respect to innovation, efficiency, and diversification, and can augment the traditional banking sector. However, shadow banks can also be susceptible to so-called "runs" and can increase the risk of contagion, as the recent financial crisis illustrated. The main focus here lies on shadow bank activities that exhibit bank-like risks such as the implementation of maturity and/or liquidity transformation, the use of financial leverage, and the transfer of credit risk. Developments in the shadow bank sector must therefore be monitored in order to highlight any vulnerabilities and allow measures to be taken where necessary to counter the corresponding risks.

Observing developments in the shadow bank system with a view to identifying systemic risks is also a key issue at an international level. At the request of the G-20, the FSB publishes an annual "Global Shadow Banking Monitoring Report", which monitors global trends and potential risks in the shadow bank system. When assessing the size of the shadow banking system, the FSB analysis takes as its broad starting point the assets listed in the "Other Financial Intermediaries" (OFI) sector. According to the latest FSB report, which was released on October 30, 2014, the Swiss OFI sector accounts for just 2% of total OFI assets. As a proportion of GDP, however, the Swiss OFI sector is the third largest in the world. That said, these estimates also include – and particularly in the case of Switzerland – activities that should not really be classified as part of the shadow banking system (see below), which is why the scope of such activities is overestimated in the FSB report. Against this backdrop, the FDF, SNB, and FINMA have undertaken a more detailed analysis of the shadow bank system. Part of this analysis was published as a "Country case study: Shadow banking in Switzerland" in the FSB's most recent Global Shadow Banking Monitoring Report.[56]

In contrast to the broad-based method adopted by the FSB, Swiss analysis focuses on the elements of the shadow bank sector that exhibit bank-like risks. This case study shows that shadow banks with bank-like risks in Switzerland play a much less significant role than one would assume on the basis of the FSB estimates. While OFI assets in Switzerland amount to CHF 1,502 billion[57] or 253 percent of GDP, more detailed analysis reveals that the size of the shadow bank sector involving activities with bank-like risks amounts to just CHF 481 billion, or 81 percent of GDP. In its top-down approach, the case study starts with the overall Swiss OFI sector. This consists of six sub-sectors, as illustrated in Table 1. The table also shows how the assets of the shadow banks differ from the OFI assets that form the basis of the FSB report. For a number of different reasons, the volume of shadow bank assets with bank-like risks is lower than the volume of OFI assets:

- Firstly, and in particular, only CHF 192 billion of the 934 billion of assets in the "Residual" category can be assigned to shadow banking, as the lion's share of this category consists of equities and cross-border intragroup credits of holding companies, which do not involve credit intermediation and therefore do not belong to shadow banking. Cross-border credit (CHF 157 billion) and domestic credit (CHF 35 billion) are not excluded, as these potentially involve credit intermediation involving maturity or liquidity transformation.
- Secondly, equity funds are excluded, as these do not count as credit intermediation.

[55] As per the FSB Global Shadow Banking Monitoring Report 2014, page 1. Viewable at http://www.financialstabilityboard.org/publications/r_141030.pdf

[56] http://www.financialstabilityboard.org/publications/r_141030.pdf

[57] Data as at the end of 2012.

- Finally, money market funds with variable net asset value (MMFs VNAV) are excluded, as these do not involve any significant maturity transformation, regulatory restrictions mean that they can only invest in highly liquid assets, and they do not promise fixed returns like money market funds with constant net asset value (CNAV). Central mortgage bond institutions (*Pfandbriefzentralen*) are likewise not involved in credit risk transfer or maturity transformation. Moreover, they are prudentially supervised by (FINMA) in a similar way to banks.

Table 1

Measurement of Swiss shadow banks (financial assets in CHF billion, end of 2012)

OFI sub-sectors:	OFIs	**Shadow banks** (i.e. non-banks involved in credit intermediation with bank-like systemic risks)	Bank-like systemic risks
(i) MMFs VNAV	34	**-**	Nil
(ii) Bond funds	159	**159**	Low to medium
(iii) Equity funds	163	**-**	Nil
(iv) Other investment funds	130	**130**	Low to medium
(v) Central mortgage bond institutions	82	**-**	Nil
(vi) "Residual" (remaining OFI sub-sector)	934	**192**	Low
Total	1,502	**481**	Low

Source: FSB Shadow Banking Monitoring Report 2014, Country Case Study – Shadow Banking in Switzerland

The resulting estimate of CHF 481 billion can still be considered conservative, as all bonds and investment funds were included, even though not all of these exhibit bank-like risks. Moreover, in addition to the above approach, the Swiss analysis encompasses a bottom-up approach based on an FSB methodology[58] involving five activities: (i) management of collective investment vehicles, (ii) loan provision that is dependent on short-term funding, (iii) intermediation of market activities that is dependent on short-term funding or on secured funding of customer assets, (iv) facilitation of credit creation, and (v) securitisation and securitisation-based credit intermediation and funding of financial activities. According to the estimate arrived at through the bottom-up approach, assets with bank-like risks in the Swiss shadow banking sector amount to CHF 315 billion, or 53% of GDP[59].

Overall, the risks to financial stability associated with shadow banks are considered to be low for a number of reasons. Firstly, the shadow banking sector is significantly smaller – around five times smaller – than the mainstream banking industry, even when a conservative estimate is applied. Secondly, the bank-like systemic risks associated with the identified assets of shadow banks are evaluated to be low to moderate. Thirdly, the extent of interconnectedness between Swiss shadow banks and banks in Switzerland should be considered low. Finally, even today shadow banks are frequently subject to regulation themselves. 60 percent of the assets of shadow banks in Switzerland comprise regulated[60] bond and investment funds supervised by FINMA.

Given this background, there is currently no urgent need to act with respect to shadow banks when it comes to the risks they pose to financial stability and therefore to the wider economy.

[58] FSB, "Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities", 2013.

[59] The principal reason for the lower figure in the bottom-up approach is that the cross-border loans of holding and financial companies are not taken into account with this approach.

[60] The Collective Investment Schemes Act (CISA) was recently revised.

Nonetheless, it is important to continue the initiative of the FDF, FINMA and the SNB in order to improve shadow bank monitoring. Whether there is any need for adjustment on the basis of new international standards in individual areas is currently being analysed jointly by the FDF, FINMA, and the SNB. This work should be complete at the beginning of 2015. Moreover, in 2015 Switzerland will also take part in an FSB shadow bank peer review, which may throw up further findings.

6 OTC derivatives and financial market infrastructures

Efficient financial markets are reliant on well-functioning financial market infrastructures through which market participants can trade, clear, and settle individual financial instruments. Key elements of financial market infrastructures include stock exchanges and other trading exchange, central counterparties (CCPs), central depositories, payment systems, and so-called trade repositories (transaction registers).

Financial market infrastructures often have quasi-monopoly character, and are heavily interconnected internationally. Their potential outage therefore poses significant risks to the stability of the financial system. Moreover, the financial crisis showed that a lack of transparency and insufficient levels of collateral in markets for derivatives traded outside of exchanges (so-called over-the-counter or OTC derivatives) can jeopardise the stability of the entire financial system due to the high degree of international interconnectedness in these markets and the major trading volumes and default risks involved.

6.1 OTC derivatives

International

Comprehensive international measures have been introduced since the financial crisis with a view to improving transparency and stability in the OTC derivatives market. For example, the countries of the G-20 have committed to ensuring the following points:

- Standardised OTC derivative contracts must be cleared through central counterparties (clearing obligation)
- All OTC derivative transactions must be reported to trade repositories (reporting obligation)
- Standardised OTC derivative transactions should, if appropriate, be traded via stock exchanges or other electronic platforms (platform trading obligation)
- Non-centrally cleared OTC derivative transactions should be subject to higher capital requirements.

USA

The bodies responsible for oversight and the elaboration of detailed regulations on OTC derivatives trading are the Commodity Futures Trading Commission (CFTC) for swaps and the Securities and Exchange Commission (SEC) for security-based swaps.

According to regulations, systemically important market participants are subject to new authorisation requirements, whereby swap traders and major swap participants have to register with the CFTC and the SEC respectively. Certain standards apply to these parties, including with respect to capital requirements, collateral, post-trade transparency, and specific disclosure obligations. In addition, the swaps in question may only be cleared through recognised clearing houses and traded via registered trading platforms. Finally, all contract parties in swap agreements as well as swap traders are obliged to report transaction data, and the transaction data must as a rule be reported to newly created swap data repositories, which are subject to oversight by the CFTC or the SEC.

Key aspects of the US regulation of CFTC are ready in force, or will become binding over the coming year. The SEC published the relevant implementation provisions in June 2014.

European Union

In Europe, OTC derivatives trading is regulated by the European Market Infrastructure Regulation (EMIR) and MiFID I. EMIR prescribes a clearing obligation for OTC derivative transactions via central counterparties, as well as supervisory guidelines for central counterparties, the mandatory reporting of all derivative transactions to a trade repository, supervisory guidelines for trade repositories, and a risk mitigation obligation for OTC derivative transactions that are not centrally cleared.

Key aspects of EMIR already in force (e.g. risk mitigation obligation, reporting obligation) or will become binding during the course of 2014.

Switzerland

Switzerland's existing regulatory framework for the OTC derivative market has gaps when compared to internationally recognised requirements, and currently contains no supervisory regulations in keeping with the G-20 commitments and the recommendations of the FSB for trading in OTC derivatives.

Switzerland is reacting to these regulatory gaps with its Financial Market Infrastructure Act (FMIA). This proposed regulation is essentially modelled on the G-20/FSB commitments and EU legislation. As a result, the following three obligations will apply to derivatives trading in Switzerland too in the future: clearing obligation, reporting obligation, risk mitigation obligation. With regard to the obligation to trade derivative transactions via an exchange (platform obligation), the legislative draft contains the corresponding legal basis, but this obligation will only enter into force when the platform trading obligation is introduced in partner countries too.

The Federal Council published its dispatch on the new FMIA on 3 September 2014, and this legislation is expected to enter in force during the course of 2015.

6.2 Systemically important financial market infrastructures

The key Swiss financial market infrastructures are the large-value payment system SIC (operated by SIX Interbank Clearing AG on behalf of the SNB), SIX SIS AG as central depository and operator of the securities settlement system SECOM, and the central counterparty SIX x-clear AG. The latter two financial market infrastructures (SIX SIS/SIX x-clear) are already licensed as banks by FINMA, and to this extent are subject to both statutory banking regulation and institutional oversight by FINMA. The permanent ability of these financial market infrastructures to function is essential if financial market participants are to be able to meet their payment and delivery commitments promptly. Accordingly, all the above-mentioned financial market infrastructures have been classified as systemically important by the SNB, thereby making them subject to the requirements set out in the National Bank Ordinance. On the one hand, these requirements are designed to ensure the greatest possible degree of operational resilience. On the other, they are designed to prevent infrastructure operators from having solvency or liquidity problems that could jeopardise the uninterrupted continuation of business. Moreover, operators of systemically important financial market infrastructures are obliged to draw up stabilisation plans, in which they highlight the measures that will ensure the uninterrupted continuation of systematically important business processes in very adverse scenarios.

As described above, a new regulatory framework with specific licensing prerequisites for financial market infrastructures (including trading platforms and trade repositories) is being introduced in Switzerland in the form of the FMIA, which is expected to enter into force in 2015. FINMA will be responsible for the licensing and the ongoing supervision of all financial market infrastructures at institutional level. The SNB will continue to have responsibility for designating the systemically important financial market infrastructures in the area of post-trading, i.e. excluding trading platforms and trade repositories. It will also be able to establish special requirements for these financial market infrastructures and monitor adherence to these

requirements. Of particular importance to the stability of the financial system is the creation of special insolvency law provisions envisaged in the FMIA for financial market infrastructures and their participants, as well as the obligation for FINMA to draw up a resolution plan for systemically important financial market infrastructures, namely the central depository SIX SIS AG and the central counterparty SIX x-clear AG.[61]

Although the resolution plans for systemically important financial market infrastructures have yet to be drawn up in detail, the task of transferring the relevant services from these structures to an operating company or hive-off vehicle and continuing these will without doubt be much simpler (from a technical point of view) for financial market infrastructures than is the case for the big banks. The following arguments support this view:

- Compared to the big Swiss banks, SIX SIS AG and SIX x-clear AG have a much more limited sphere of activity. They first and foremost provide market participants with infrastructure services in the areas of custody and settlement (SIX SIS AG) and clearing (SIX x-clear AG). To support these core services, SIX SIS AG also offers participants certain services in the area of securities financing. As a rule, SIX SIS AG functions as an intermediary agent between participants; credit is only granted to a very limited extent, and strictly on an extremely short-term basis (intraday or overnight).
- Compared to the big banks, SIX SIS AG and SIX x-clear AG have very small balance sheets and a comparatively straightforward balance sheet structure, both on the asset side and on the liability side.
- SIX SIS AG and SIX x-clear AG have a comparatively low level of organisational complexity. Both entities are subsidiaries of SIX Group AG that either provide the relevant services themselves or procure them from other companies of SIX Group – in particular from the Global IT division. All relevant legal entities are headquartered in Switzerland, which is also home to the key operating businesses.
- The amount of capital and liquidity that is likely to be required for a successful transfer of relevant services to an operating company or hive-off vehicle is comparatively low.
- Compared to the big banks, which have a very large number of customers with many different types of contractual relationship, the number of contractual relationships with direct participants of SIX SIS AG and SIX x-clear AG that would be transferred to an operating company or hive-off vehicle is much lower.
- The key participants or clients of SIX SIS AG and SIX x-clear AG are at the same time the owners of SIX Group AG.[62] As participants are reliant on infrastructure services, they would have a strong interest in the transfer of the relevant services to an operating company or hive-off vehicle in the event of a crisis.

Nonetheless, the continuation of the business of these financial market infrastructures is not assured, despite the easier operational transfer of the service. A complicating factor is that at least the service provided by a CCP is to a large extent dependent on the confidence of clearing members in its stability. Moreover, for a CCP such as SIX x-clear, time is a critical element. Were it to lose the confidence of clients and fail to fulfil its payment obligations for even a short

[61] By operating the SIC system, the SNB is fulfilling its legal mandate of facilitating and ensuring the functioning of cash-free payment systems (Art. 5 para. 2c NBA). As a financial market infrastructure that is operated either by or behalf of the SNB may not become insolvent, no resolution plan is necessary.

[62] SIX Group AG is an unlimited joint stock company (*Aktiengesellschaft*) headquartered in Zurich. The company currently owns some 140 national and international financial institutions. The shareholder structure is as follows: big banks 30.1%, foreign banks 19.7%, commercial and management banks 14.9%, cantonal banks 13.9%, private banks 9.0%, regional and Raiffeisen banks 8.1%, treasury shares 3.1%, other 1.2%.

period of time, the damage to its reputation would probably be irreparable. The timing of a hive-off solution is therefore the critical factor.

Furthermore, SIX x-clear is connected with other international financial market infrastructures, not only with respect to affiliated trading centres but also with respect to clearing in association with other international CCPs (interoperability). Placing a hive-off vehicle in this contractual relationship and obtaining the corresponding approval from the foreign supervisory authorities of the other CCPs and trading centres would probably be complex, as well as possibly politically awkward.

7 Recommendations

Section:	Recommendations:
1. Depositor protection	1) The understanding and degree of awareness of the entire depositor protection system should be increased, namely to the extent enjoyed by customers at an international level. 2) The organisation of esisuisse as the driving force of the deposit insurance scheme should be improved as part of the overhaul of its Articles of Association. 3) Where payouts from the deposit insurance scheme are concerned, Switzerland should seek to shorten the target deadline from the current 20 working days to (ideally) just 7 working days. 4) It should be reviewed whether the deposit insurance financing model can be improved compared to the status quo through (at least partial) pre-financing, e.g. through an enhancement involving the provision of collateral or through the introduction of a fund financed on an *ex ante* basis. 5) The costs and benefits of a potential increase in the system ceiling should be reviewed.
2. Crisis planning for selected non-systemically-important banks	A requirement for selected non-systemically-relevant banks to draw up crisis preparations and plans too, together with the formal powers needed to enforce such a requirement, could make a significant contribution to the stability of the Swiss financial system. It should therefore be reviewed whether a legal basis that establishes the corresponding powers should be created, and which financial institutions this would cover.
3. Tax incentives to take on debt as risk to stability	The tax system should pursue the principle of creating no incentives for indebtedness (i.e. the incentive to finance assets with debt rather than equity). It is recommended that an investigation be undertaken into the extent of the indebtedness incentives in the Swiss tax system and the resulting risks to financial stability. Here a specific focus should be placed on the mortgage indebtedness of homeowners, which is particularly high in an international comparison. On the basis of this investigation, measures should be drawn up and reviewed with respect to how the current system could be brought more into line with the principle of tax neutrality in the financing structure.

4. Systemic importance of the Swiss insurance sector	None
5. Shadow banks	None
6. OTC derivatives and financial market infrastructures	None

Annex 1: The real estate market, private indebtedness and financial stability

1. Background

1.1 Current real estate market situation and measures already resolved

The dynamism of the Swiss real estate and mortgage market has been preoccupying the Swiss political establishment, the authorities, and the public for quite some time now. Persistently low interest rates, population growth, and a lack of investment alternatives have resulted in strong growth in house prices and mortgage volumes, which is increasingly perceived as a risk to both financial stability and the Swiss economy.

The Swiss National Bank (SNB), whose legal mandate also encompasses the strengthening of financial stability, is therefore warning of the dangers that stem from imbalances in the real estate and mortgage markets, specifically the danger of a correction to residential property prices. FINMA too has regularly warned of these dangers. However, according to the SNB, the growth in these imbalances has recently slowed. The very size of the real estate and mortgage market, its significance for the Swiss banks, the high degree of leverage apparent, and the strength of its cyclical movements all make this market a significant and at the same time uncertain factor when it comes to the stability of the financial system and the economy as a whole. If the risks surrounding the real estate market were to materialise, this would have potentially massive economic repercussions for both economic growth and the labour market. Indeed, these correlations became all too apparent in the Swiss real estate crisis of the 1990s.

In order to reduce such risks, a number of measures have been taken in recent years with a view to increasing the resilience of the banking sector and cooling the real estate and mortgage market. In mid-2012, for example, the Federal Council approved the basis for the countercyclical capital buffer, as well as an increase in equity capital requirements in conjunction with a form of self-regulation for the banks. The countercyclical buffer for the financial sector was activated for the first time at the beginning of 2013, when it was set at 1% (with a transitional period until end of September 2013), before being increased to 2% at the beginning of 2014 (transitional period until end of June 2014)[63]. The SNB will continue to pay close attention to developments in the mortgage and real estate market, regularly reviewing whether an adjustment to the countercyclical capital buffer is necessary.

The simultaneously adopted increase in capital requirements for mortgage-backed positions (Art. 72 para. 5 CAO) was made dependent on adherence to the self-regulation of the Swiss Bankers Association (SBA), which is recognised as the minimum standard. The industry self-regulation requires the proportion of equity provided by the customer to amount to a minimum of 10%, whereby this equity may not be taken from the assets of occupational benefits (Pillar 2)[64]. On July 4, 2014, at the request of the FDF and FINMA, the SBA tightened this self-regulation further: The deadline for paying off the mortgage debt to bring it to two-thirds of the collateral value was shortened from the current period of 20 years to 15 years, with the repayment now having to be made on a straight-line basis[65]. In addition, it was made clear that the lower of market value and purchase price is now key for determining the value of a property

[63] SNB media releases of 13.2.2013 and 23.1.2014.

[64] SBA, Guidelines with respect to minimum requirements in mortgage financing, June 2012 (available in German only).

[65] SBA, Guidelines with respect to minimum requirements in mortgage financing, July 2014 (available in German only).

and the loan-to-value ratio. With respect to the evaluation of affordability, second incomes are now as a rule only eligible if joint and several liability applies[66].

There is some difference in opinion with respect to the effectiveness of the measures taken. Whereas FINMA and the SNB do not believe the real estate and mortgage market has cooled sufficiently, real estate analysts such as IAZI[67] and Wüest & Partner[68] believe there is evidence of such cooling, i.e. that market momentum is slowing, which they attribute to the various measures taken over the last few years. The authorities reserve the right to impose further binding measures if conditions in the real estate and mortgage market do not ease further[69].

With the option of an advance withdrawal of Pillar 2 funds for the acquisition of residential property having effectively been limited by the self-regulatory measures of the banks (see above), the Federal Council has questioned the withdrawal of capital from mandatory occupational benefits generally in connection with its deliberations on a reform of Switzerland's supplementary benefits system[70]. The aim of these deliberations is to deliver greater individual retirement security and take the strain off the system of supplementary benefits.

1.2 Private indebtedness in Switzerland

In connection with the strong growth of the real estate and mortgage market and the resulting risks to financial stability and the overall economy, a number of contributory factors outside of the financial centre are also increasingly being scrutinised, with discussions focusing on their contribution to the build-up of imbalances and risks. In this context, particular attention is being paid to the possibility of using retirement capital to acquire residential property and tax incentives to take on private debt. This paper is concerned with the latter aspect.

Outstanding residential property loans in Switzerland now account for just under 120% of GDP (cf. Figure 1). This statistic is often cited as evidence of the high degree of indebtedness of private households. At the same time, it should be borne in mind that these liabilities can be set against substantial assets when viewed in overall terms (cf. Figure 2). When overall household mortgage liabilities are measured against total real estate assets, the average loan-to-value ratio amounts to some 40 to 45%. In its analysis of the net wealth of private households[71], the SNB shows that net wealth (assets minus liabilities, including mortgages) per capita amounted to CHF 373,762 as per the end of 2012, whereby the distribution of these assets – as tax statistics show – is very uneven[72].

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66 SBA, Guidelines for examining, evaluating and settling mortgage-backed loans, July 2014 (available in German only).

67 IAZI, SWX IAZI Price indices for real estate, http://www.iazicifi.ch/de/swx-iazi-preisindizes-fuer-immobilien-april-2014-d.php, 15.4.2014 (German only).

68 Wüest & Partner, "Immo-Monitoring" 2014 - spring edition, media release of 8.4.2014.

69 Federal Council, "Federal Council welcomes self-regulatory measures to combat overheating of mortgage market", media release of 2.7.2014 and FINMA "Mortgage financing: FINMA approves amended self-regulation", media release of 2.7.2014.

70 Federal Council, "Decisions on the direction of supplementary benefits reform", media release 25.6.2014 (German, French and Italian only).

71 SNB, "Household wealth in 2012", press release of 20.11.2013, p. 11.

72 Swiss Federal Statistical Office, "Wealth of natural persons in 2010", http://www.bfs.admin.ch/bfs/portal/en/index/themen/20/02/blank/key/vermoegen.html, 29.4.2014.

Figure 1[73]

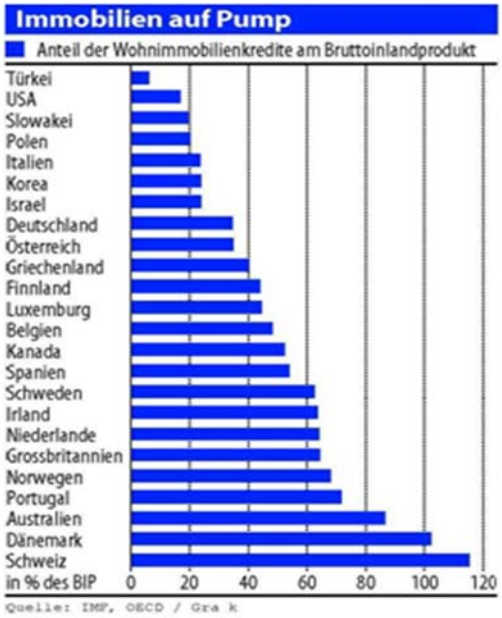
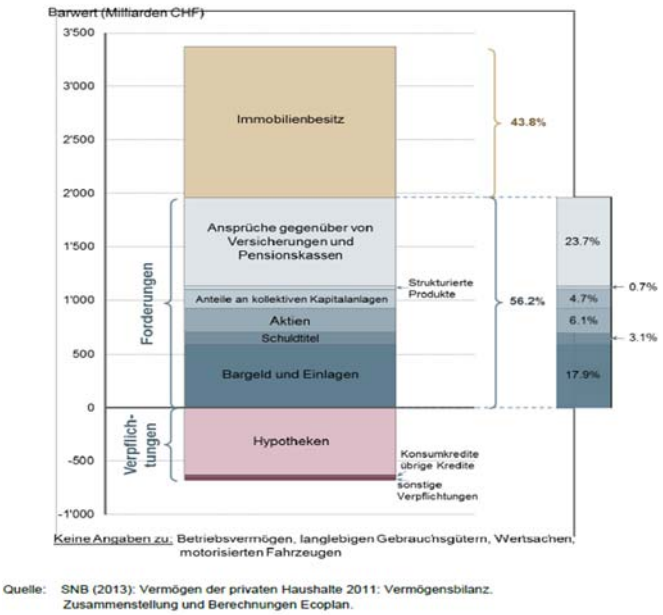


Figure 2[74]



Given this background situation, the question arises as to why Swiss households do not increasingly pay off their mortgage debt in order to reduce the interest payable and therefore their living costs. The reason would appear to lie in particular in the Swiss tax system, which creates an economic incentive to take on mortgage debt (and the corresponding disincentive to pay it off). In addition to maintenance and administration costs, mortgage interest is viewed as a "resource cost", and under the Swiss system can be set against the taxation of so-called imputed rental value, which is considered "natural income". Due to the fact that mortgage interest is deductible from income for tax purposes, while capital gains on personal property are exempt from tax, there is a clear tax incentive to keep gross debt high. For reasons of tax optimisation, many Swiss households therefore do not repay their mortgages, or do so only to a limited or indirect extent. As a result, Swiss households are heavily exposed to market risks (e.g. a sharp rise in interest rates), which in the case of a shock could lead to an accumulation of payment difficulties for mortgage borrowers and hence price erosion in the real estate market, which in turn could put the banks and the financial system as a whole in jeopardy[75].

Switzerland's experience in the 1990s showed that a rapid increase in key interest rates can lead to a sharp correction in the real estate market and significant losses for the banks: Between 1991 and 1996 some CHF 42 billion had to be written off in the domestic lending business, whereby the crisis affected the segment of commercially-used properties in particular[76]. By contrast, the experiences of other countries – for example Denmark or the Netherlands since 2007 – show that losses on residential mortgages can be relatively low in a recession involving a significant decline in house prices (albeit without a rise in interest rates). Key supporting factors here include a high-quality real estate portfolio and the absence of a

[73] Finanz und Wirtschaft, "Europe's remaining real estate bubbles", edition of 25.1.2014 (in German).
[74] Swiss Federal Statistical Office, "Asset situation of private households" (in German), published on 28.2.2014, p. 35.
[75] Barnetta, Ines and David S. Gerber, "Development of the Swiss real estate market – and the role of the state" (German and French only), in Die Volkswirtschaft, 1.5.2011.
[76] Credit Suisse Economic Research, "Swiss Issues Real Estate, Real Estate Market 2010, Facts and Trends“, 2010, p. 5.

"sub-prime" sector. Overall, historical experience shows that more than two thirds of systemic bank crises are preceded by collapses in real estate values[77].

2. Considerations to date, recommendations and political initiatives

The tax incentive to take on debt has increasingly become an object of criticism from various quarters. Both the Organisation for Economic Co-operation and Development (OECD)[78] and the International Monetary Fund (IMF)[79] have recommended on a number of occasions in their relevant country reports that Switzerland should eliminate this false incentive and abolish the tax deductibility of mortgage interest in phases, in order to improve financial stability[80].

In Switzerland too, the tax incentive to take on debt has attracted plenty of criticism. Both a federal government working party[81] and the banking industry[82] (as part of its analyses on macroprudential and systemic financial market oversight) have flagged up this incentive, questioning its justification – particularly given the latent risks to financial stability posed by the real estate and mortgage market.

In collaboration with the Federal Social Insurance Office (FSIO) and the Federal Housing Office (FHO), the Federal Tax Administration (FTA) drew up a report in 2010[83] in which it analysed the risks posed by Switzerland's home ownership promotion scheme to the real estate and mortgage market. In particular, this study identified a danger that state support for home ownership could strengthen the negative repercussions of any real estate crisis, as it makes the acquisition of property more appealing than renting, i.e. increases the willingness of the Swiss to pay to acquire their own property (distortion of demand). Moreover, the report points out that the increase in demand as a result of the state promotion scheme can come into conflict with spatial-topographical as well as (more recently) legal restrictions that apply to the construction of residential property in Switzerland. This leads into a situation in which the desired effect of home ownership promotion to some extent founders on the rock of inflated property prices.

In addition to the considerations outlined above, there have also been numerous specific initiatives launched at various political levels proposing a change in the system of imputed rental value taxation, including a change to the deductibility of mortgage interest.

The proposals for reform of imputed rental value taxation so far have typically focused on its abolition – as imputed rental value is viewed by many people as a purely "fictional" form of income and accordingly rather incomprehensible – and on the simplification of the tax system. This was the case, for example, in a referendum on the tax package of 2004, which wanted to abolish the taxation of imputed rental value as well as most types of deduction. This package was rejected by the electorate, as was (albeit by a narrow margin) the popular initiative "Secure Housing for the Elderly" in 2012, which argued that pensioners should have a one-off opportunity to opt out of imputed rental value taxation.

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77 Zhu, M. (2014), "Housing Markets, Financial Stability and the Economy, Opening Remarks the Bundesbank/German Research Foundation/IMF Conference", June 5, 2014.

78 OECD, "Economic Survey Switzerland", 2011.

79 IMF, "Switzerland – Concluding Statement for the 2014 Article IV Consultation", 24.3.2014 and "2013 Article IV Consultation", IMF Country Report No. 13/128, May 2013.

80 By contrast, in a number of other reports, such as the OECD's "Economic Policy Reforms: Going for Growth 2011", the OECD has actually taken a generally positive stance towards the taxation of imputed rental value.

81 FDF / Financial Stability Working Group, "Report on macroprudential oversight in Switzerland", February 2012.

82 SBA, "Macroprudential policy – position paper on objectives, instruments, and institutional structure" (German only), September 2011, p. 14.

83 FTA, FSIO, FHO, "Home ownership policy in Switzerland" (German and French only), 7.12.2010.

At parliamentary level too, there have been numerous recent initiatives relating to the issue of imputed rental value taxation, of which some are still pending, e.g. the motions "Environmentally sustainable system change in imputed rental value and debit interest deduction" (12.3874), "Abolition of imputed rental value taxation and revocation of all forms of deductibility" (12.3826) and "Secure housing. One-off option to choose with respect to imputed rental value" (13.3083). So far, all political initiatives for a reform of imputed rental value taxation have failed, although there have often been different key reasons for this outcome as well as different majorities.

3. Findings and repercussions of a system change

3.1 Findings

The indebtedness of private households in Switzerland, particularly as a result of their overall level of mortgage debt, is high in an international comparison, although this indebtedness also goes hand-in-hand with a high overall level of assets.

The current system of imputed rental value taxation treats the benefit arising from owner-occupied property as "natural income" in an economic sense, from which (among other things) mortgage interest can be deducted as a "resource cost". Because certain forms of asset income are exempt from income tax under existing law (particularly capital gains on private assets), it may be appealing for property owners not to use any disposable funds to repay their mortgages, but to invest these in other forms of investment on a tax-free basis instead. This enables property owners to continue to deduct inflated mortgage interest costs on the one hand, while generating tax-free capital income and capital gains on the other. As a result of this tax incentive, which encourages private indebtedness, property owners in Switzerland are exposed to higher risks in the real estate and mortgage market. Exogenous shocks, such as a rapid rise in interest rates or an abrupt slump in demand, together with the corresponding price erosion in the real estate market, could lead to difficulties in meeting interest payments or – in an extreme scenario – even to homeowners having to reduce their level of indebtedness as a result of breaching maximum loan-to-value ratios. An accumulation of these problems could have a negative impact on the stability of individual financial institutions or the financial system as a whole.

On the other hand, it should be pointed out that the risk posed by homeowner mortgage indebtedness in Switzerland is limited by various factors. The crucial factors for the susceptibility of the mortgage market to price declines are above all the quality of credit lending and the repayment behaviour of so-called "threshold households" and homeowners whose properties are backed by very little equity capital. The proportion of new mortgages that exceed the 80% loan-to-value ratio has declined slightly in recent years, and according to the SNB currently amounts to just 16 percent (from a gross perspective) or 9 percent (from a net perspective).[84] Moreover, Swiss mortgage debt overall is counterbalanced by significant asset values that could be resorted to in order to repay mortgages in the event of the interest environment changing. It should nonetheless be borne in mind that the distribution of assets is relatively uneven.

As a result of the dynamic growth of the real estate and mortgage market in recent years, these areas of economic activity have come under greater scrutiny, with various measures having been taken with a view to cooling the market. Opinions differ with respect to the effectiveness of these measures to date.

Whereas the regulatory measures taken so far have primarily been aimed at strengthening the resilience of the banks in the face of real estate and mortgage market risks, and making mortgage loans more expensive on the supply side (countercyclical buffer, equity capital

[84] The net perspective differs from the gross perspective by virtue of the fact that pledges from Pillar 2 and Pillar 3 retirement savings (as per the Swiss home ownership promotion scheme) are taken into account as additional collateral.

requirements), the self-regulation of the banks has involved higher requirements being set for mortgage lending on the demand side (customer equity, repayment). Any change to the system (abolition of deductibility of mortgage interest/abolition of imputed rental value) is also likely to have a restraining influence on the demand for very high mortgage loans and on the continued extension of such loans. The repercussions for property prices would depend on the exact formulation and the interest rate environment[85].

Discussions on the taxation of imputed rental value have so far primarily revolved around the aspect of the question of distribution between homeowners and renters, as well as the simplification of the tax system. Stability and regulatory policy measures have not been the focus of as much attention.

3.2 Repercussions of a system change

Any change to the system would have repercussions at a number of different levels, e.g. for homeowners, the banks, and the state.[86] Homeowners would be incentivised to use any disposable assets to repay their mortgage debts, which would have the effect of reducing their exposure to the risks of the real estate and mortgage market. On the other hand, the funds used to accelerate mortgage repayment would possibly be switched from other investments, which in turn could have economic consequences.

Where the tax burden is concerned, the homeowners that would benefit most from a system change are those who currently have a positive net imputed rental value, which is likely to be a significant proportion of homeowners given the current low interest rate environment[87].

Mortgage providers (banks, insurers) would likewise be significantly affected by a system change. If a system change were to prompt households to use their disposable assets to repay their mortgage debts, this would reduce the interest revenues of financial intermediaries on the one hand, and result in the disposable assets of households being removed from other fee-generating forms of investment on the other. Although it is difficult to put a precise figure on the consequences for the balance sheets and income statements of mortgage lenders, these are likely to be not inconsiderable given the significance of the mortgage business for many Swiss banks.

The financial repercussions for the Confederation and the cantons would be determined by two factors: tax receipts and administrative expense. The repercussions for tax receipts would depend on the precise structuring of the system change as well as the medium-term to long-term adjustment processes, and could prove to be positive, neutral, or even negative. Given the current low interest rate environment in conjunction with high property prices and therefore high imputed rental values, shortfalls in tax receipts would be more likely than in a high interest environment. Cantons with a high proportion of homeowners are likely to be more severely affected. The administrative cost involved (estimates, budgeting) would probably decline given a consistent system change, which in turn would probably lead to savings for the cantons in particular.

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85 "Imputed rental value. Incentive mechanisms, distribution effects, and financial repercussions of various reform options", 19.5.2014.

86 FTA, FSIO, FHO, 2010, p. 10 and pp. 20 et seq.

87 FTA, 2014.

The current system of imputed rental value taxation, together with the tax exemption of capital gains on private assets, creates incentives for private households with mortgage loans to maintain a high level of indebtedness over time. In order to combat this problem and arrive at a more incentive-neutral system for the taxation of private individuals, alternatives should be reviewed, including a potential change to the system. Given the current situation in the real estate and mortgage market, the resulting potential risks to the stability of the financial system and the economy, and the high level of indebtedness of Swiss households in an international comparison, a renewed discussion of this issue appears both logical and necessary. Such a discussion should also include the general repercussions for the overall tax system.

3.3 Evaluating the option of a system change

Arguments in favour of a system change

- Reforming the current system of imputed rental value taxation could improve the stability of the financial system in the medium to long term, as well as reducing the risks to the economy. In addition, reducing the incentive to take on debt could also help to safeguard the Swiss system of retirement provision in the medium to long term, without this requiring any restriction of the option of making advance capital withdrawals for the acquisition of property.
- The current taxation system is complex, as well as laborious and cost-intensive for a number of different stakeholders (homeowners, tax offices, real estate valuers).
- The current incentive to undertake no maintenance work on residential property for a long period of time, in order to then be able to claim a relatively high maintenance expense in just a few years with a view to benefiting from the annual choice between flat-rate tax allowances and actual maintenance costs would no longer apply. Moreover, if imputed rental value were abolished, value-enhancing investments would no longer lead to an increase in imputed rental value, which would in turn probably increase the incentive to engage in certain investment activities.
- Depending on the specific way a system change were to be structured, such a changeover could reduce the necessity for more rigorous mortgage market regulation (and therefore also *dirigiste* intervention) for certain areas of the mortgage market (owner-occupied residential property) in the medium to long term.
- There are also economic arguments in favour of a system change: Maintenance of the status quo would mean preservation of a structural false incentive, together with increased regulation of the banks in order to reduce the repercussions of this incentive, which entails economic costs in the form of efficiency losses. A system change that removed the incentive to take on debt could at the very least contain these losses within certain boundaries.

Arguments against a system change

- From a technical tax system perspective, the current system is comprehensible insofar as it treats the benefits that arise from investment assets in owner-occupied property in the same way as it does the economic benefits (e.g. rental income, bond coupon) of other investment assets, as long as this income does not constitute a tax-free capital gain. As a result, a distortion of decision-making on the part of households is avoided. By contrast, the abolition of imputed rental value taxation would shift the balance in favour of the purchase of residential property over other asset classes.
- A system change would result in existing assets being used to accelerate repayment of mortgage loans. These funds would be withdrawn from other economic areas, and would

have to be compensated through other instruments in order to avoid repercussions for the real economy.

- Enabling homeowners to deduct maintenance costs from imputed rental value creates an incentive for them to maintain the quality of buildings. This encourages preservation of asset value, which contributes to the high quality of Switzerland's real estate asset base, and therefore to a reduction in default risk. Moreover, the deductibility of maintenance costs reduces potential incentives for homeowners to resort to black market labour, thereby safeguarding income tax and VAT receipts on building maintenance work.
- Borrowers with a high level of assets and a good credit rating are more likely to repay than those with an inferior credit rating. This could potentially lead to a higher overall default risk for the remaining mortgage base, which could have the effect of making it more expensive to obtain a mortgage.

If the idea of a system change is to be pursued further, it goes without saying that the repercussions for the real estate and mortgage market, the real economy, and Swiss financial centre must be reviewed and discussed in even greater depth, as must the various options available.

Due to the legislative changes that would be required and the drawn-out political process that would probably result, a system change cannot act as a substitute for short-term measures in the area of mortgage lending.

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