Chapter 2

Reducing risks in the financial system

Despite some deleveraging over the past 3 years, the very large size of the balance sheets of the two big banks represents a major potential risk for the economy and public finances. These risks are reinforced by the low level of loss-absorbing capital held by them. Legislation, approved by parliament in September 2011, will reduce these risks, notably by strengthening capital requirements, although the foreseen leverage ratio of about 5% implies only a modest capacity to absorb losses. A stricter leverage requirement would generate substantial benefits and little cost to the economy. Contingent convertible bonds can contribute about half to required capital, so it is crucial that they are designed to ensure that they provide effective cushions in a systemic crisis. The planned reform also requires banks to develop mechanisms for their own resolution in case of failure but credible mechanisms of this kind have yet to be developed and require international co-ordination. Bank regulation needs to consider system-wide risks more explicitly. Macro-prudential regulation would also help the authorities to prevent excessive mortgage lending growth in the context of exceptionally low interest rates. Cantonal banks have expanded mortgage lending particularly actively. Removing the explicit government guarantees for their liabilities would also help lower risks. A partially-funded deposit insurance scheme would provide further stability to the Swiss financial system. Significant improvements in the regulation of pension funds have been introduced, although further steps are desirable.

The largest Swiss financial institutions require adequate legislation to limit systemic financial risks

The 2 big banks continue to pose large systemic risks

The Swiss financial system contains a diverse set of financial institutions. At one end of the spectrum, there are two exceptionally large banks as well as three large insurance companies. At the other end, there are multiple banks, insurers and pension funds which are much smaller (Table 2.1). In international comparison, the 2 largest banks, UBS and Crédit Suisse (the "Big-2") are at the top end of large banks in comparison to the size of the

Table 2.1. **Financial system profile**

Financial structure in CHF billion, 2009			
	Number of institutions	Total assets	Assets as % of 2009 GDP
Banks	325	2 668	488.4
Big-2	2	1 445	264.5
Cantonal banks	24	404	74.0
Regional and savings banks	70	92	16.8
Raiffeisen bank	1	140	25.6
Foreign owned or branches	156	353	64.6
Private banks	14	39	7.1
Other banks[1]	58	196	35.9
Insurance companies[2]	114	851	155.8
Life insurance	24	281	51.4
General	90	570	104.3
Pension funds[2]	2 543	539	98.7
Worldwide assets of major Swiss financial institutions, 2010[3]			
		CHF billion, 2010	% of 2010 GDP
UBS		1 317	241.1
CSG		1 009	184.7
Swiss Re		238	43.6
Zurich Financial Services		391	71.6
Foreign currency assets and liabilities as per cent of total assets/liabilities, end 2010[4]			
		Assets	Liabilities
All Swiss banks		50	52
Denominated in USD		26	27
Denominated in euros		13	14

1. Trading banks, stock exchange banks, and other banks.
2. Figures for end-2008.
3. Consolidated group.
4. Swiss booked assets only.

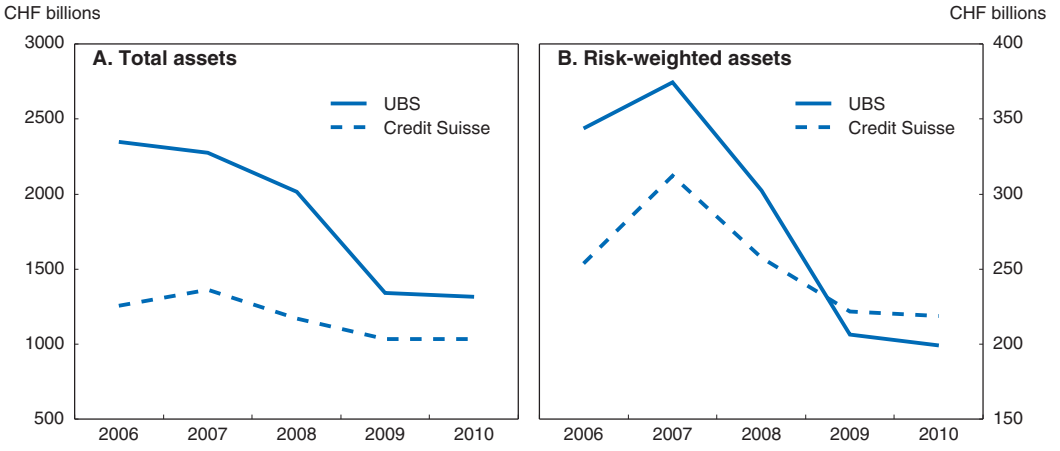
Source: Swiss National Bank, *Monthly Report on Banking Statistics*; *Annual Reports* of UBS and CSG for 2008, IMF 2009.

economy with combined assets worth 426% to GDP (Table 2 in the Assessment and Recommendations).

The Big-2 each pose a systemic risk for the Swiss financial system and for public finances, as underscored during the global financial crisis. One of the Big-2, UBS, needed a large government rescue package in 2008, which included the purchase of impaired assets worth CHF 38 billion (7½ per cent of GDP) by a designated fund (*StabFund*) set up by the SNB, of which 90% was financed by a loan granted by the SNB, as well as a temporary capital injection of the government into UBS amounting to CHF 6 bn (1.2% of GDP, see OECD, 2009a). The Confederation sold its stake at a CHF 1.2 billion gain corresponding to an annualized return of more than 30%. Most of the *StabFund*'s assets have been sold without a loss. The overall remaining risks for the public sector could be reduced from 7½ per cent of GDP in 2009 to 1½ per cent of GDP as of July 2011.

The Big-2 have reduced their balance sheets in the aftermath of the global financial crisis. UBS was hardest hit and has downsized substantially. Total assets declined by more than 40%. Crédit Suisse, the smaller of the Big-2, downsized from 1 360 to 1 030 CHF billion; a reduction of 25% (Figure 2.1). A similar pattern can be observed on risk weighted assets. These reductions are sizeable in an international context. While all banks faced a reduction in their 2008 balance sheet compared to the pre-crisis level of 2007 (due to lower prices), many banks rebounced subsequently to the pre-crisis level, whereas they stagnated in Switzerland.

Figure 2.1. **Swiss big banks' total and risk-weighted assets**



Source: *Annual Reports* of UBS and CSG.

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The balance sheet reductions notwithstanding, the Big-2 continue to be among the *systemically important financial institutions* (SIFIs) worldwide, whose disorderly failure would cause significant disruption to the wider financial system and economic activity worldwide (FSB, 2010). Moreover, in comparison to the large Swiss insurance groups, these banks are more prone to create systemic risk due to the short-term nature of their liabilities and their strong ties to other financial intermediaries domestically and abroad.

The Financial Stability Board has introduced the concept of global SIFIs (G-SIFIs): large financial institutions that are systemic in a global context. A list of 30 G-SIFIs was

published in 2011. The assessment methodology for G-SIFIs relies on an indicator-based approach and comprises five broad categories: size, interconnectedness, lack of substitutability, global cross-jurisdictional activity and complexity. The Big-2 are in that group and they are also systemically important for the domestic financial market. The Big-2 Swiss banks are Too-Big-To-Fail (TBTF) and therefore enjoy an implicit state guarantee which becomes effective when losses rise to a significant level relative to capital. This asymmetric pay-off gives an incentive to excessive risk taking, which can exacerbate the risks the banks pose for the global and domestic financial system.

The large size of the Big-2 also raises the question whether they are Too Big To Save (TBTS) for Switzerland. Small countries with large, internationally operating banks may lack the capacity to save their large banks on their own, which was the case, on a much smaller scale, of Iceland. The difficulty may be exacerbated in the case of large-scale liquidity problems, as the banks' liquidity needs may arise in foreign currency, for which the home central bank's capacity to provide liquidity support could be limited and may depend on foreign central banks' willingness to offer liquidity in the currencies concerned.

The initial policy response to financial risks in the large banks has been insufficient

In view of the substantial risks posed by the Big-2 the Swiss authorities initially responded to the crisis with stricter capital requirements for these two banks specifically, including the introduction of a leverage ratio requirement on the balance sheets of the Big-2 as well as improvements in liquidity requirements (described in the last Economic Survey, OECD, 2009a). FINMA imposed leverage ratios on the Big-2 at 3% at the group level and 4% at the level of individual domestic corporations. However, the leverage ratio requirement has remained weak because of the exclusion of domestic loans from the denominator, the inclusion of positions in capital which cannot absorb losses (such as deferred tax assets) and the reduction of the asset base on which the leverage ratio is calculated by netting certain assets and liabilities.[1] These weaknesses will be addressed with the implementation of the new TBTF regulation and Basel III (see below). As a result, loss-absorbing capital of the Big-2 remained below 2% of their total assets on average at the end of 2010 (SNB, 2011). The capacity of banks to absorb losses without external help thus remains very limited. Indeed credit default swap rates of both banks remained high, a multiple of the levels observed before the crisis.

In part, these shortcomings reflect the deficiencies of the current Basel II capital requirement framework. *First*, overall required capital buffers are too low. *Second*, the risks associated with certain activities (such as trading and securitization) are not adequately reflected in the risk weights of securities. The capital requirements focus on individual exposures and fail to capture the macro-dynamics within the financial system. The Basel II framework also makes no allowance for the specific challenges posed by the Too Big to Fail (TBTF) and, in some cases, Too Big to Save (TBTS) status of the largest banks. *Third*, the Basel II framework allows banks to build up exposures in off-balance sheet vehicles. *Fourth*, the financial crisis has also shown that both the level and the quality of bank capital base are important. Common shares and retained earnings ("common equity") are the most reliable components of capital to absorb losses. Some capital instruments allowed under Basel II rules have proven less capable of absorbing losses in the financial crisis. In view of these shortcomings Swiss rules introduced in 2009 also tighten requirements on the quality of eligible capital. FINMA also introduced stricter capital requirements on the smaller banks in 2011. These depend on the banks' total assets, assets under management

and ensured deposits. These requirements exceed earlier rules, which obliged banks to hold a minimum Tier 1 regulatory capital ratio of twice as much as the Basel II standard.

The Basel III capital framework, to be phased in between 2013 and 2016, in line with the Basel III process, addresses some of these shortcomings. It foresees a more substantial role for common equity in capital requirements, so as to ensure required capital is truly loss-absorbing. In addition, the level of the capital requirements will be increased for all banks. Thus, the common equity requirement has been set at 7% of risk-weighted assets while total tier I and tier II capital requirements have been set at 10½ per cent. The Basel committee has also presented a capital surcharge requirement for G-SIFIs, which has been issued for consultation. The capital surcharge has to be met with common equity and ranges from 1% to 2.5% of risk-weighted assets in the first instance, depending on a bank's systemic importance. To provide a disincentive for banks facing the highest charge to increase materially their global systemic importance in the future, an additional surcharge of up to 1% could be applied to them.

Legislation approved by parliament in September 2011, discussed below, will improve capital requirements on the Big-2 further, including with a stricter leverage ratio requirement. However, this legislation will be fully implemented only in 2019. The low level of loss-absorbing capital, as a ratio of the balance sheet, is a source of concern, especially in the context of continued international financial market turbulence. Direct exposures of the Big-2 to countries most affected by the euro area debt crisis are modest. For the Swiss banking system as a whole, exposures to the Greek, Irish, Italian, Portuguese and Spanish economies amounted to 1% of the balance sheets in September 2011, according to data from the Bank for International Settlements. However, they remain exposed to indirect effects should financial market turbulence worsen. Therefore immediate action to raise the level of loss-absorbing capital the Big-2 are required to hold relative to total unweighted assets is necessary.

New legislation on the Big-2 is welcome, although several improvements could be considered

The Swiss financial authorities set up a Commission of Experts (*Swiss Commission of Experts*, SCE) in 2010 to determine which businesses had a major systemic importance for the Swiss economy and to present proposals for their regulation (SCE, 2010). The Commission included representatives of the authorities, academia, and the private sector, mostly from the large financial businesses. The Commission determined that the Big-2 banks clearly had such systemic importance. These proposals were followed closely by the government in draft legislation. The legislation was approved by both chambers of parliament in September 2011. Two key components of the proposed reform are substantially higher capital requirements and resolution plans for the two large Swiss banks.

The purpose of higher capital requirements is to reduce the probability of failure. The purpose of requiring resolution plans from systemically important banks is to create conditions that would allow a wider range of options to policy makers other than having the whole bank rescued (Avgouleas *et al.*, 2010). A resolution plan is to be used when a bank may get into difficulties (such as when equity falls below regulatory minima or in the case of outright insolvency). The G20 group of countries has requested resolution plans to be drawn up for the top 30 G-SIFIs. The Financial Stability Board is currently working on this exercise. The requirement to develop resolution plans for the Big-2 Swiss banks included

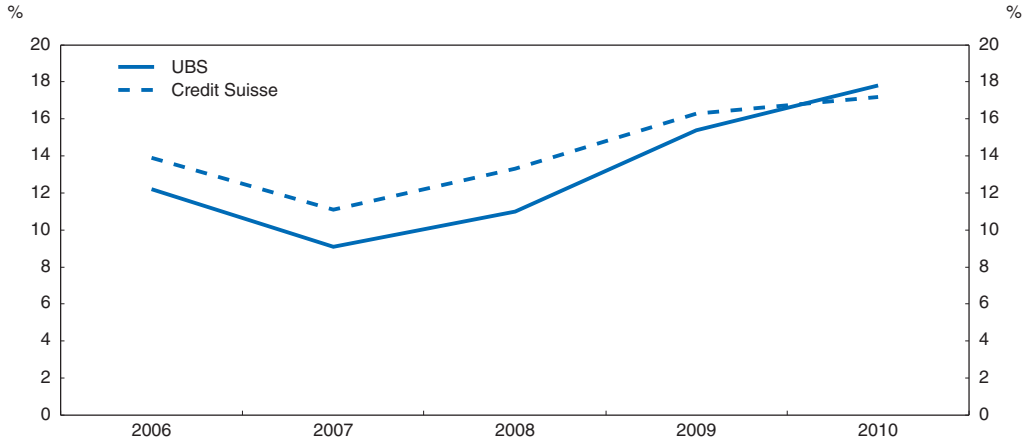
in the draft legislation is thus in line with international reform efforts. Both steps can help limit the government support that one of the Big-2 may require in the event of a crisis and would therefore reduce both the moral hazard that results from the TBTF status and the risks associated with the TBTS status. In addition, the draft legislation includes measures to improve risk diversification, notably by reducing the interconnectedness within the banking sector. A further element are liquidity requirements which have been implemented earlier.

Some OECD countries have also imposed taxes on bank balance sheets to seek a contribution for potential future government rescues of banks. In the case of Switzerland, the key challenge is to reduce the risk of one of the large banks requiring a rescue package which may exceed the resources the public sector is able to provide within a short period of time. A tax would not reduce this risk significantly. The authorities therefore appropriately focus on preventing the occurrence of such events. Moreover, contributions from banks to fund rescue measures do not reduce such moral hazard. However, taxes on specific balance sheet positions may be an option to consider if they can internalise the social costs that result from systemic risks such positions generate as effectively as regulation (IMF, 2010).

The capital adequacy requirements have been raised substantially for the Big-2

The new capital requirements on the Big-2 should reach about 19% of risk-weighted assets (as a result of ongoing balance sheet reductions they may drop to 18%, see below). These exceed the total requirements on G-SIFIs (summing up the Basel III requirements and the G-SIFI surcharge proposal from the Basel committee) by 4 to 6½ percentage points. The Big-2 have increased their capital ratios in recent years (Figure 2.2). In the second quarter of 2011, these reached 18% in both banks (however, these figures are still based on the Basel II definitions). In line with international practice, the capital requirements apply at group as well as individual bank level. These new requirements also exceed those in the United Kingdom, which has recently proposed a 3% capital surcharge for its large SIFIs (Independent Commission on Banking, 2011). In terms of common equity (the most reliable

Figure 2.2. **Capital adequacy ratio of Swiss big banks (in %)**



Source: Annual Reports of UBS and CSG.

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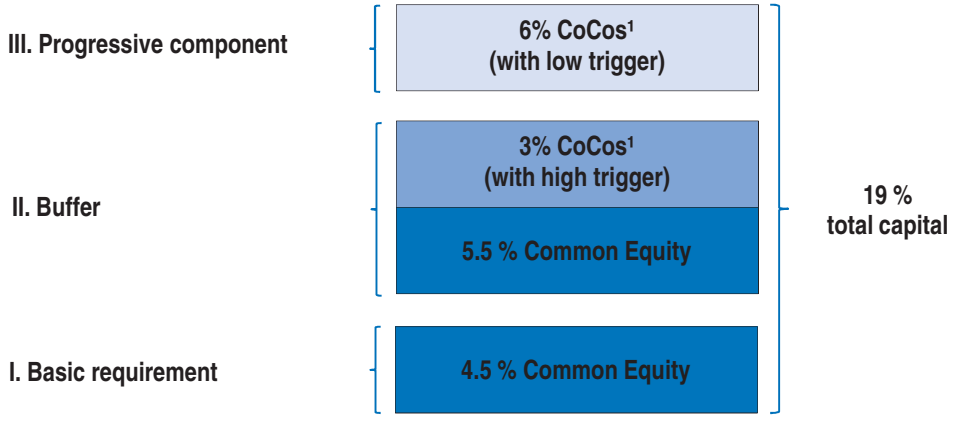
form of capital), the planned capital adequacy requirements are broadly similar to the international standards for G-SIFIs.

More specifically, the new capital regime consists of three building blocks, as illustrated in Figure 2.3. The minimum requirement is set at 4.5% of risk-weighted assets. The second component is a new buffer requirement at 8.5%. Banks have to restore and maintain this buffer in "good times" (defined in terms of profitability). This requirement is in line with the new Basel III regime which promotes the build-up of adequate buffers above the minimum, which can then be drawn down when a bank suffers losses. These two requirements add up to a 13% capital requirement for the Swiss banks, of which 10 percentage points are to be held in the form of common equity.

Figure 2.3. **The new capital regime for SIFIs**



1. Contingent convertible loans (or CoCos).

The third component is progressive since it is determined as a function of the market share in the domestic loan market and the size of the balance sheet. The Big-2 have to hold 0.3% of extra capital against risk-weighted assets for each additional percentage point of market share beyond a market share of 10%. Similarly, above a minimum threshold of CHF 250 billion (about 50% of Swiss GDP), they have to hold 0.6% of extra capital for each additional CHF 250 billion of risk-weighted assets. Based on the current market share of around 20% and total assets (not allowing for replacement value netting)[2] of around CHF 1 500 bn of the Swiss Big-2 banks, the progressive component is set at 6%. The progressive component ensures higher loss-absorbing capacity in larger banks with more systemic importance.

An innovative element of the new Swiss capital regime is that about half of the total capital required can be held in the form of Contingent Convertible Loans (or CoCos) or equivalent loss-absorbing debt (*e.g.*, write-down bonds) (Figure 2.3). The reform proposal foresees that these bonds must be converted into common equity if common equity drops below predefined levels. If common equity drops below 7% of risk-weighted assets, the CoCos held within the buffer component are automatically converted. This first trigger is set relatively high to ensure that capital can absorb losses without falling below the minimum requirement and without the need to suspend normal operations. Cocos in the progressive component are subject to a lower trigger, set at about 5% common equity, just

above the regulatory minimum of 4.5%. The capital provided in the progressive component is expected to be available to underpin organizational measures for the emergency plan to separate systemically important functions from other functions of the bank should the bank need to be unwound. The banks are required to define these emergency plans (see below). Both triggers are based on the book value of common equity. Additionally, these CoCos include a non-viability clause which can be triggered by FINMA if there is a threat of insolvency according to FINMA's assessment. Other conditions for the conversion, notably the conversion price, are left to the discretion of the banks (however, the contractual obligations must be approved by the regulator). For example, banks can set the conversion price when the bonds are issued, or at the time of conversion. A recent issue of contingent convertible bonds by *Crédit Suisse* foresees that the price of conversion is determined by the share price at the time of conversion. This is appropriate, as it maximizes shareholders' interest in avoiding a deterioration of the solvency of the bank to the trigger point, and so helps to reduce moral hazard for shareholders and management.

The CoCos will only work if triggered on time. There is some concern that accounting values and possibly supervisory assessments lag the real-time financial development of a bank, especially when it is in trouble (Calomiris and Herring, 2011, Flannery and Perotti, 2011). The recent subprime crisis shows the adverse, systemic impact of common exposures and positions that cumulate across firms that seemed *ex ante* to be individually well capitalized. Japan in the 1990s was an example of banks that were individually strong but systemically weak in response to real estate shocks (Hirtle, Schuermann and Stiroh, 2009). In all these cases, banks were well capitalized on the basis of book value. UBS had a very high capital adequacy ratio (CAR) in accounting terms when the financial problems hit in 2008. Hence, if CoCos had been in place and had been triggered based on accounting values, they may not have been triggered on time. Moreover, management has some discretion over accounting values and may use such discretion in the interest of incumbent shareholders whose interests the management is legally required to defend. The determination of risk weights for the assets are also subject to considerable managerial influence, as they are calculated on the basis of the banks' own models. Admati *et al.* (2010, and references therein) for example, argue that this system is easily manipulable. Incumbent shareholders' interest may be to hold back the conversion of the bonds as it would dilute ownership of the bank. While the non-viability assessment is intended to provide a safeguard against late conversion, it is subject to FINMA's discretion and may therefore generate the potential risk of regulatory forbearance.

A first alternative to the current Swiss proposal would be to base a trigger for conversion on market values. Such a trigger has drawbacks as market assessments of firm value may be volatile. This may lead to early conversion. But that is less of a problem than later conversion, as it would provide equity well in time. To reduce the possibility of excessively early conversion, a stock market decline could be defined over a sufficiently long period to avoid triggers based on daily volatility. Also, as a market-based trigger might generate incentives to speculate on the trigger, which could generate instability, FINMA may need to actively use its powers to act against market manipulation. However, as argued by Callomiris and Herring (2011), the use of a moving average over, for example 3 months, combined with the liquidity of equity markets and the ability of banks to issue equity would reduce such risks.

A second option, to avoid belated conversions of CoCos into common equity would be for the Swiss authorities to monitor the market value of the Big-2 that issue CoCos. If the

market indicator signals problems, while the book value does not (yet), FINMA could, for example, be required to request an independent review of the book value of the bank by auditors. Moreover, if the bank becomes non-viable by market standards the legal documentation of the CoCos should allow for conversion. Furthermore, it is important that the regulator undertakes its assessment of bank management's book valuations with more independence than before the crisis. Steps to ensure the independence of the regulatory authorities from the banks are therefore critical to ensure that CoCos are an effective regulatory instrument. Regulatory oversight of the Big-2 has been tightened since, in part through stricter specification of stress testing (see Table A1) but regulatory forbearance cannot be excluded.

A belated conversion would entail more significant risks for the CoCos subject to the lower conversion trigger. Indeed, most of the CoCos the banks can hold to fulfill capital requirements are triggered at a value just above the absolute minimum of regulatory capital (*i.e. at about* 5%). Credible resolution mechanisms for internationally active banks may not be available in the next few years (see further below) and rescue measures for banks have typically had to take place well before book values of capital dropped to regulatory minima. The risk of belated conversion reinforces the need for the banks to hold substantial common equity buffers.

Another concern is the impact of the triggering of CoCos on the financial system (Goodhart, 2010). *First*, the holders of the CoCos should be able to absorb any losses after the CoCos are converted. CoCos should therefore be widely held, spreading the risk. To minimize the risk of contagion, they should preferably be held outside the financial system. Banks are rightly not allowed to invest in CoCos. Insofar as CoCos are held within the financial system, by insurers or pension funds, the draft legislation proposes to treat them as equity. However, as insurance companies have some systemic weight, specific provisions on risk concentration *vis-à-vis* the Big-2 should be considered. *Second*, the CoCos of several banks can be triggered at the same time. Such a simultaneous trigger could happen in particular with the progressive component at the low trigger point. The SNB and FINMA should prepare a scenario for such a systemic event.

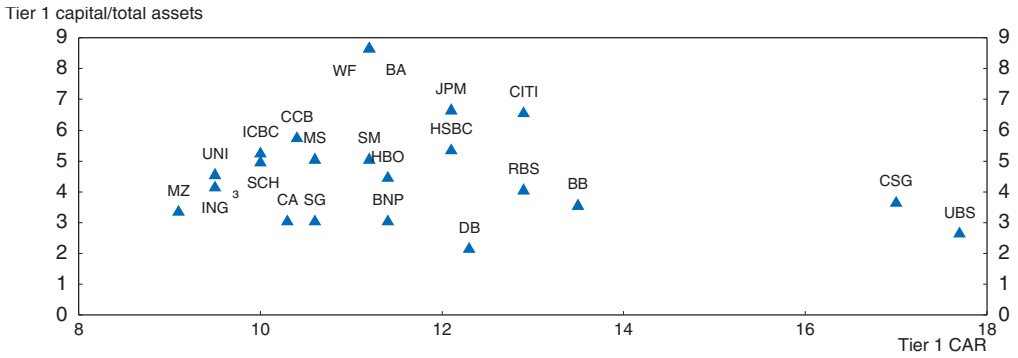
A more stringent leverage ratio needs to be introduced to complement the capital adequacy ratio

Banks can circumvent capital requirements based on risk weighted assets by moving to asset classes with lower risk weights. The new Basel III regime therefore complements the capital requirements with a leverage ratio, defined as Tier I capital to total exposure, set at 3%. The Swiss authorities will adopt the new Basel III definition, which encompasses all assets (domestic and foreign) and does not allow netting. The new Swiss TBTF legislation introduces a leverage ratio that is calibrated on all requirements set in risk-weighted terms outlined above and implies a capital requirement slightly below the risk-based requirements as determined by the Swiss commission of experts based on year-end 2009 data. The leverage ratio is expected to amount to about 5% at present, although the exact ratio will depend on the development of the domestic market shares of the Big-2 and of their total assets. This leverage ratio is strongly endorsed as it provides a double lock on the door for "unlimited" risk taking.

Swiss banks tend to have relatively high tier-1 capital levels relative to risk-weighted assets compared to an international peer group, as illustrated in Figure 2.4, whereas tier-1 capital relative to the sum of unweighted assets (leverage ratio) remains relatively low. The

Figure 2.4. **Leverage and capital adequacy ratios of major international banks**[1]

2010[2]



1. Banks' acronyms are the following: BA, Bank of America Corp.; BB, Barclays Bank; BNP, BNP Paribas; CA, Crédit Agricole Group; CCB, China Construction Bank; CITI, Citigroup; CSG, Credit Suisse Group; DB, Deutsche Bank; HBO, HBOS; HSBC, HSBC holdings; ICBC; ING, Ing Bank; JPM, JP Morgan Chase and Co.; MS, Mitsubishi UFJ Financial Group; MZ, Mizuho Financial Group; RBS, Royal Bank of Scotland; SCH, Santander Central Hispano; SG, Société Générale; SM, Sumitomo Mitsui Financial Group; UBS; UNI, Unicredit; WF, Wells Fargo and Co.
2. Data refer to the fiscal year from March 2009 to March 2010 for Japanese banks.
3. 2009 for tier 1 capital/total assets.

Source: Bureau van Dijk, *Bankscope Database*.

StatLink http://dx.doi.org/10.1787/888932560455

numbers shown in Figure 2.4 are based on Basel II definitions, which are subject to significant shortcomings, in part because of an excessively wide definition of capital, as discussed above. According to these definitions, the leverage ratio of Crédit Suisse was 3.7%, and of UBS 2.7%, in 2010. They appear lower than the average leverage ratio of the international peer group at 4.8%. If only truly loss absorbing capital is counted, the leverage ratios have been estimated at below 2% for the Big-2 on average, as noted above. The banks may need to raise the ratio of capital relative to the balance sheet by more than 3 percentage points to reach the leverage ratio requirement of about 5% in the reform package, which must be fully met in 2019. Both common equity and the CoCos count towards meeting the leverage ratio requirement. It implies a modest capacity to absorb losses before the bank becomes insolvent (equity drops to zero).

The costs of higher capital requirements in terms of funding costs for the economy are low or zero (Admati *et al.*, 2010). Increased capital requirements do not increase banks' funding costs substantially, even though the required return on equity is typically much higher than the interest cost on bank debt before the financial crisis. As equity increases, the risk born by each unit of equity diminishes. Hence the required return on equity, which includes a risk premium, must decline. Moral hazard, which affects debt funding much more than equity funding, and the different tax treatment of the return on equity and the interest on bank debt also drive a wedge between the rates of return on bank equity and bank debt. However they drive a wedge between the private costs of equity and debt financing rather than the social costs. They should hence not induce policy makers to limit capital requirements. Moreover, since higher capital requirements reduce moral hazard, they should improve the quality of lending, with positive effects on long-term growth. The benefits of higher capital requirements in terms of preventing or mitigating financial crises are high, as the recent financial crisis has shown.[3] A stricter leverage ratio requirement should be implemented. Preferably, common equity should contribute a larger share to the capital requirement.

Risk diversification could be improved

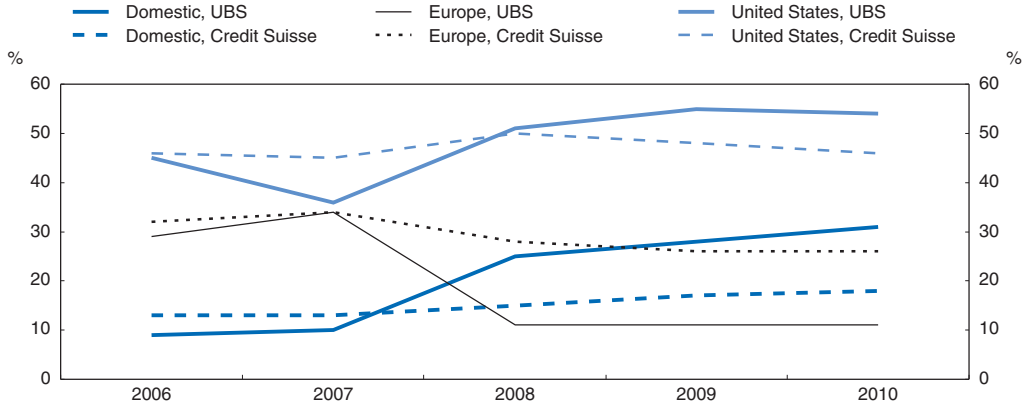
A risk diversification requirement defines the maximum risk that a bank may incur in relation to specific counterparties. Banks in Switzerland and elsewhere in the OECD have preferential risk weights for lending between each other. The drying up of the interbank market illustrated the vulnerability of the banking sector to these exposures. Following recent European rules, the draft legislation proposes to raise the risk weight on interbank claims from a preferential 20% to 100% (equivalent to any other commercial counterparty). The risk of banks to single counterparties is currently restricted to 25% of eligible capital.

The reform package also proposes to reduce total risk concentrations aggregated over all individual risk concentrations in the Big-2. An individual risk concentration is defined as a total exposure to a counterparty that is equal or higher than 10% of eligible capital. The current rules restrict total risk concentrations to 800% of eligible capital. The Swiss authorities are considering reducing this limit, which has not been binding in the past. Such a step would also be helpful in reducing the interconnectedness within the financial sector.

Risk concentration could also arise with respect to geographic areas. Assets from one country are, for example, subject to systemic risk that is underestimated if only individual risks are assessed. The draft reform does not address the international dimension of risk diversification. The Big-2 Swiss banks traditionally have a large presence in the United States. Measured by assets, this exposure amounts to 40 to 50%. UBS increased its US exposure from 36% in 2007 to 54% in 2010, as illustrated in Figure 2.5. The Swiss authorities could consider extending the risk diversification approach to geographic concentrations.

Figure 2.5. **Geographical composition of assets of Swiss big banks**

Per cent of total assets



Source: Annual Reports of UBS and CSG.

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Effective resolution plans will require international co-ordination

To curtail the TBTF problem the reform will require the Big-2 to prepare emergency plans to ensure the maintenance of systemically relevant functions in case of a threat of insolvency. Additionally, the Big-2 will be required to set up global recovery and resolution plans (RRP). Properly designed resolution plans may allow systemically important banks to fail or, at least, to be unwound in an orderly fashion, limiting the adverse impact on the

financial system and the economy domestically and internationally. The Federal Council sets the requirements for the emergency plan by ordinance, with the aim to avoid having tax-payers' money to be used to rescue one of the Big-2 in the case of a threat of their insolvency. The reform requires the Big-2 to take preventive measures that will help to preserve the systemically important functions while winding down the non-systemic parts of the bank. The reform act does not define the functions that will be considered systemically important precisely but gives some pointers: domestic banking business, in particular deposit and credit business, and payment functions. Including retail deposits and lending within systemically important functions appears appropriate as they are essential for the smooth functioning of the economy. Government involvement, and potential support, can then be restricted to these systemically important activities which will be determined by the SNB. These systemically important functions could, for example, be put into a bridge bank, endowed with sufficient capital from the conversion of the low-triggered Cocos, to continue these critical functions. The minimum requirements on resolution mechanisms have yet to be defined.

Orderly resolution of such global banks is feasible only with appropriate co-ordination and co-operation of all national authorities of the countries in which the banks conduct substantial business (Schoenmaker, 2011). In a co-operative approach, national authorities can implement the lowest cost option to resolve a bank (rescue, partly unwinding or closure). The recent global financial crisis has highlighted that an unco-ordinated approach, such as in the resolution of Lehman Brothers, can contribute to global systemic risk. So a national approach towards the resolution of the Big-2 is unlikely to be effective in times of crisis (see below). In this context, the proposals of the Swiss commission of experts for a rebate on the capital surcharge when national and international resolvability is improved are welcome. If the collaboration of the authorities of the affected countries is indeed improved, the repercussions of an insolvency are reduced, thereby allowing a lower capital surcharge. This puts a premium on national and international efforts to align insolvency procedures and recognize foreign procedures. However, since the required loss-absorbing capital of the Big-2 is expected to be limited to about 5% of the balance sheet, this rebate should only be granted if a fully credible international resolution plan is in place.

Finally, resolution plans are also relevant for insurers. FINMA may consider requiring resolution plans for the three large insurers. It appeared during the recent crisis that large insurance companies can also pose a systemic threat. *First*, insurance companies can act as counterparties to other financial institutions, for example in derivatives transactions (as in the case of AIG). *Second*, insurance companies may be forced to sell risky assets when their capital becomes close to or below the regulatory minimum. Such forced fire sales could lead to further declines in asset prices.

Stronger cross-border arrangements are essential

The large Swiss banks (UBS and CSG) as well as the large Swiss insurers (Swiss Re and Zurich Financial Services) have sizeable international operations, in particular in the major financial markets. Cross-border supervisory co-operation is therefore essential for effective supervision of these large Swiss financial institutions. The Swiss have developed a range of cross-border arrangements to help supervise the largest financial institutions and for crisis management. These include regular information exchanges and discussions with the US and UK regulatory authorities as well as the co-operative arrangements for insurance company supervision established with EU member states in 2006. During the

crisis, the SNB arranged temporary currency swap lines with the United States Federal Reserve and other central banks to ensure provision of foreign currency liquidity to Swiss banks. Such arrangements are both bilateral and multilateral, though mainly confined to a few major countries. Also in place are more multilateral supervisory college arrangements in respect of the largest banks and insurance groups (OECD, 2009a).

The experience of the global financial crisis has shown that stronger and broader multilateral arrangements need to be developed to strengthen crisis management capabilities. The Financial Stability Board has recommended developing recovery and resolution plans for the global SIFIs (FSB, 2010). In particular, SIFI resolution must be a viable option. The FSB notes that effective resolution includes effective cross-border co-ordination mechanisms. An FSB Cross-border Crisis Management Group (CBCM) is monitoring the development of G-SIFIs recovery and resolution plans in close co-operation with the institution-specific Crisis Management Groups (FSB, 2011).

FINMA could use the supervisory colleges for the largest Swiss financial institutions to devise a resolution plan at group level. Such group level resolution plans would go beyond the domestic rescue plans for the systematically relevant functions, which are currently prepared. The resolution of troubled banks in the past indicates that an approach at the level of the group is often more effective and efficient. Reputation effects make it often impossible to separate the parent from the subsidiaries. Avgouleas *et al.* (2010) suggest that resolution plans for international banks could include a burden sharing mechanism for central banks (liquidity support) and ministries of finance (capital support). The burden sharing would then be agreed for each bank separately. The Swiss authorities, FINMA, SNB, and the Federal Department of Finance (FDF), should push for a more international approach towards defining and resolving the systemically important functions of the Big-2.

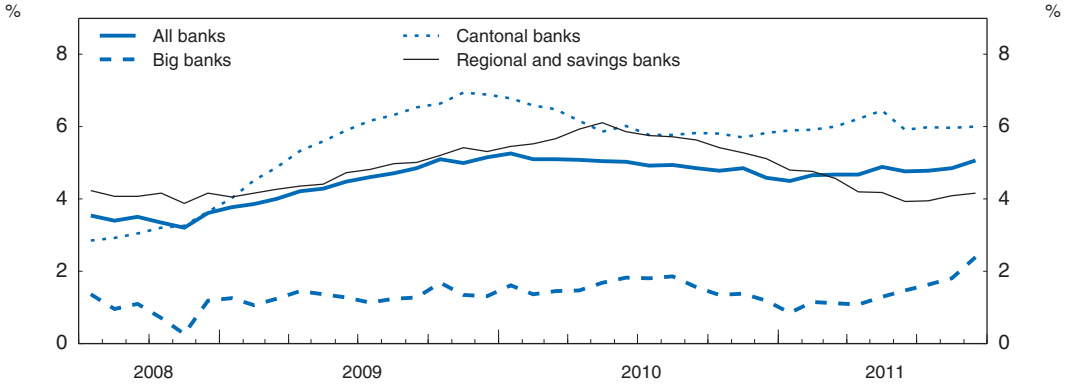
Regulation of smaller financial institutions

Cantonal banks

Mortgage lending of cantonal banks, which are mostly owned by cantonal governments, has recently been particularly strong (Figure 2.6). Cantonal banks are

Figure 2.6. **Total domestic mortgage lending by type of bank**[1]

Year-on-year growth rates



1. Displayed data start from July 2008 in order to avoid the effects of a previous break in series.
Source: SNB, *Monthly Bulletin of Banking Statistics*, November 2011.

StatLink http://dx.doi.org/10.1787/888932560493

especially active in local markets with 21 out of the 24 cantonal banks covered by an unlimited state guarantee. One canton is in the process of revoking the guarantee of its cantonal bank. Most cantons require the banks to pay a compensation for the guarantee. The payments are typically low relative to the bank's capital (often below 1%). The guarantees are reflected in the rating of these banks, which are considerably more favourable when the rating agencies take the guarantees into account (Table 2.2). The widespread guarantees of cantonal banks by cantonal governments, which lower their funding costs, may help them gain market shares in the current context of diminishing interest margins, and may encourage them to take on excessive risks. These risks are potentially heightened by the dependence of these banks on revenues from mortgage lending and the concentration of cantonal banks in their respective local markets, some of which have overheated. Government guarantees to the cantonal banks should be eliminated.

Table 2.2. **Currency deposit (CD) ratings by bank category, 2011**[1]

		CD rating	Implied CD rating without external support	Implied downgrade (Notches)	Average implied downgrade (Notches)
Cantonal banks	Banque Cantonale Vaudoise	A1	Baa1/Baa2	–3.5	
	St. Galler Kantonalbank	Aa1	A2	–4	
	Zuercher Kantonalbank	Aaa	A2	–5	–4.17
Regional banks	Clientis AG	A3	A3	0	
	Valiant Bank AG	A1	A2	–1	–0.50
	Raiffeisen Schweiz	Aa1	Aa3	–2	
Big banks	Crédit Suisse AG	Aa1	Aa3	–2	
	UBS AG	Aa3	A3	–3	–2.50

1. Mars 2011.
Source: SNB.

Current legislation requires cantons to own at least a third of the capital and to control as much of the voting shares of a bank labelled a *Cantonal bank*. Cantonal banks are subject to FINMA's supervision, as are all banks. Appointments of senior management staff are subject to review by the supervisor to ensure they are "fit and proper". Hence the regulatory requirements regarding corporate governance limit the direct political influence on the cantonal banks activities. Some cantons have also made efforts to reduce political influence following the housing crisis in the early 1990s, in which some cantonal banks experienced a deterioration of their financial situation. Nonetheless, appointment procedures are subject to political influence; for example staff are elected by parliament and party affiliation plays a role. Such political influence generates a risk of cantonal banks' lending policies being used for political ends. Although cantonal banks face no restrictions on merging with each other, they have resisted the general trend in the Swiss banking sector to concentrate, including among the small banks. Political influence may also have prevented mergers taking place. Consideration should be given to further reducing political influence in appointment procedures for cantonal management, for example, by introducing independent appointment commissions consisting of experts.

In the wake of the financial crisis, deposit insurance has become more generous, as in other OECD countries, covering deposits up to CHF 100 000. The overall ceiling was raised from CHF 4 billion to CHF 6 billion. Deposit insurance is mostly relevant for the small,

domestically-oriented institutions, as the Big-2 benefit from implicit guarantees owing to their TBTF status. Requirements to strengthen the ability of the system to cover any required insurance payments have been strengthened only marginally, with banks required to hold liquid Swiss assets equivalent to 125% of insured deposits. The banks guarantee each others' deposits but deposit insurance remains unfunded *ex ante*. The government's proposal to introduce a scheme funded to the order of 3% of the insured sum, backed up by government in the case of higher funding needs, was defeated in parliament. The current unfunded arrangement makes deposit insurance ill-suited for situations in which individual institutions fail in the context of a system-wide crisis, in which it may be difficult for banks to fund each others' deposit withdrawals. The deposit insurance scheme should be partially funded by bank contributions and backed up by the government.

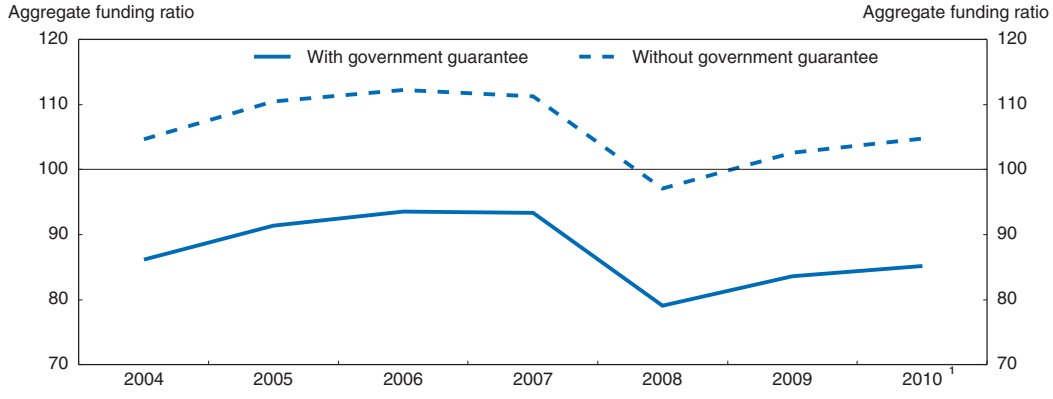
Reform of pension funds needs to progress further

An important component of the Swiss financial system is the funded pension schemes. All Swiss workers – except those with incomes below a legally-set threshold – are required to build up pension assets in the second pillar, and many make contributions beyond the minimum or build up assets in life insurance. Funds in the compulsory pillar are jointly managed by worker and employer representatives. Pension funds have accumulated assets worth close to 150% of GDP. As experienced in other countries, such as the Netherlands, pension fund losses in the context of a financial market crisis could imply sizeable macro-economic or fiscal consequences; for example, increases in contribution rates may be required in periods of financial crises, thereby aggravating a downturn by damping consumption (for the case of the Netherlands, see OECD, 2009b). In Switzerland, the preferred measure to deal with underfunding of pension liabilities is to lower expected pension payments by lowering0 the pension fund's guaranteed rate of return on contributions rather than increasing contributions. This approach would reduce the risk of damping consumption.

The funding ratios dropped sharply in 2008 but have improved steadily since then (see Figure 2.7). At present, overall, covering funding ratios does not require substantial increases in contribution rates. Table 2.3 provides a detailed distribution of the funding

Figure 2.7. **Funding ratios of pension funds in Switzerland**

Registered pension funds



1. The estimate refers to information available up to May 2010.

Source: FOS and FSIO; estimations for 2009 and 2010.

StatLink http://dx.doi.org/10.1787/888932560512

Table 2.3. **Breakdown of funding ratios of Swiss pension funds (May 2010)**

%

Share of PF with a funding ratio	Without state guarantee	With state guarantee
Below 90	2.5	38.4
90-100	15.4	23.3
100-110	46.3	31.5
110-120	22.9	6.8
Above 120	12.8	None

Source: FSIO estimation.

ratios, as of May 2010. In the context of private pension funds without state guarantee, some 18% of pension funds have assets which do not fully fund projected liabilities. Some public sector worker funds are at present only partly funded and benefit from an explicit government guarantee to cover unfunded liabilities. That explains the lower funding of pension funds with state guarantees in Figure 2.7. The government has taken steps to fully capitalize them. The pension funds not backed up by government funding and whose funding ratios have dropped below 90% funding should be watched closely. Managers of these funds may face incentives to attempt to raise rates of return in order to raise funding ratios with a riskier investment strategy.

Payment promises do not adjust automatically to a decline in fund worth or changes in life expectancy. Rules determine the level of pension payments, making the system partly *defined benefit*. In particular, parliament fixes the *conversion rate,* which determines the level of annual pension payments relative to accumulated assets upon requirement, and the minimum rate of return. The conversion rate was lowered from 7.2% to 6.8% in 2010. However, this reduction in the conversion rate appears insufficient in view of developments in the residual life expectancy of retirees, as the government noted in 2006 (FDHA, 2006) and a further reduction of the conversion rate was rejected by referendum. It would also be desirable to adjust the conversion rate and the required minimum rate of return on the basis of actuarial and market developments, as recommended in previous *Economic Surveys*.

The current discount rate used to determine the present value of future benefit payments by the pension funds to compute their funding ratios is determined by a supervisory expert committee. However, it is not based on fair-value accounting. At present it is set, on average, at 3.6%, which is relatively high compared to long-term market interest rates. While the current practice reduces the volatility of the pension funding ratio, it may also lead to under-valuation of pension liabilities. New rules for setting the discount rate will be introduced in January 2012. The reference discount rate will be based on an index of market rates. The index will be calculated on the basis of average returns in asset markets in which pension funds typically invest over the past 20 years (2/3 weight) and the 10-year government bond rate (1/3 weight) with a deduction of 0.5% (CSAC, 2010). While the new index marks progress in incorporating market conditions, it relies on developments long in the past. To move closer to a fair-value rate while avoiding excessive volatility, a somewhat shorter period for asset market performance would be an option worth considering. Alternatively, the return on Swiss government bonds with longer maturity, such as 30 years, could be included, while raising the weight of these government bonds in the calculation of the discount rate.

Pension fund supervision used to be the responsibility of the 26 cantons. Switzerland has embarked on a major reform of the occupational pension funds. In 2010, new

legislation was passed providing for increased oversight, governance and transparency. The key elements of the reform are:

- Strengthening the supervisory system, merging cantonal into regional supervisory authorities. Clarifying the responsibilities and obligations of the various parties involved such as fund trustees, auditors and actuaries. New regulation which will enter into force in January 2012 foresees requirements of professional expertise at the level of the supervision of pension funds, particularly by the creation of a new supervisory body which will consist of independent experts.
- Strengthening of the supervisory system by establishing an overarching independent federal commission which has the power to issue binding standards for the local supervisory authorities.
- Additional legal provisions stipulating further governance and transparency requirements to avoid conflicts of interest for managers of pension funds.
- Regulation of investment foundations that manage the assets of Swiss pension funds.

The reform will be implemented in two stages (Towers Watson, 2011). The first stage dealing with the stricter governance rules has become effective as of 1 July 2011. The introduction of the new supervisory structure as well as the new rules for the investment foundations will become effective on 1 January 2012. The powers of the new federal commission are helpful to harmonize pension fund supervision across cantons. Pension fund supervision requires to some extent similar expertise as insurance supervision. As a minimum, the new pension commission should therefore co-operate with FINMA, which is responsible for federal banking and insurance supervision, to share supervisory experience.

Insurees cannot freely chose the pension fund within the compulsory funded pension pillar and the option of making additional voluntary contributions may not induce much competition among funds. Lack of competition may result in excessive costs in fund management. The reform therefore requires more transparency in the reporting of the administration costs and the management fees for asset management. Such transparency is welcome, as it facilitates a critical assessment of management cost and performance. But there have not been requirements about professional expertise on the trustees of pension funds, as there are for banking or insurance directors. Given the large investments managed by pension funds, specific requirements about professional expertise should be considered for pension fund trustees, who take the ultimate investment decisions. Such financial knowledge at the level of trustees is helpful to establish a critical assessment of the financing and performance of their pension fund and to prevent full reliance on outside experts, such as auditors, actuaries and investment managers. As not all members of the board of trustees have to be experts, new rules could stipulate that a minimum number of trustees has sufficient professional financial knowledge. The Government decided to include these requirements into a new regulation which will enter into force in January 2012.

Towards a new macroprudential policy framework

The macroprudential framework should be reviewed

As the crisis revealed, a micro-prudential framework (*i.e.* a framework focusing on individual banks) cannot address the imbalances building up across the system. The need for macroprudential policy arises because financial institutions do not internalise the spill-

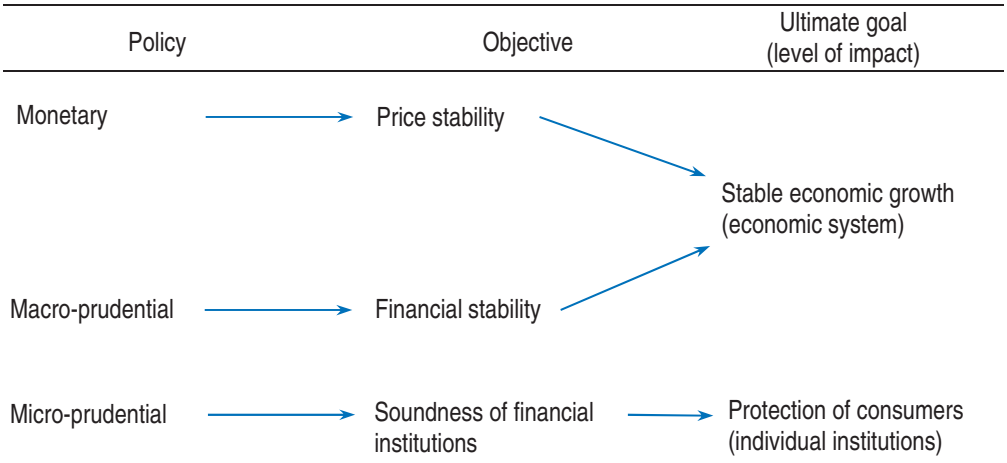
overs of their behaviour to the financial system as a whole and to the real economy. As the global financial crisis illustrates, ample credit can lead to imbalances, such as asset price bubbles. Underpricing of risk and herding behaviour contribute to the build-up of financial imbalances over time. When imbalances unwind, shocks quickly propagate through the financial system due to the high degree of interconnectedness and fire sales (*e.g.* Kashyap, Berner and Goodhart, 2011, Perotti and Suarez, 2009). Monetary policy is not always available to address excessive credit growth. Macroprudential tools are needed to fill this void. They can be split into, *first*, time-variant or counter-cyclical tools that aim to mitigate the build-up of financial imbalances and, *second,* structural tools that address externalities within the financial system (Schoenmaker and Wierts, 2011).

At present, all prudential regulation is the responsibility of FINMA. It can set requirements for individual banks on the basis of legislation, which sets system-wide rules. FINMA can – but is not required to – consult the SNB on new microprudential rules, following the revision of the bilateral Memorandum of Understanding in 2010. The SNB is responsible for price stability and contributes to financial stability. The revised Memorandum defines common areas of interest, which includes the soundness of systemically important banks, major regulation as well as crisis prevention and planning. In such areas, both institutions work together in common projects. In such projects, both institutions are required to consult each other before taking a final decision.

The Federal Department of Finance (FDF), SNB and FINMA also signed a Memorandum of Understanding on Financial Stability in January 2011. This memorandum improves the exchange of information. The FDF, FINMA, and the SNB agreed to meet at least twice a year to discuss their views on financial stability and issues of current interest in financial market regulation and to exchange information on *i*) the macroeconomic environment, *ii*) the situation in the financial markets and in the banking sector, and *iii*) national and international regulatory initiatives concerning the financial markets and the banking sector. In a financial crisis a joint high-level committee of representatives is expected to meet and the three institutions will take due consideration of the impact of their actions on the sphere of responsibility of the other authorities and co-ordinate their activities. A committee which meets on a regular basis has also been set up to discuss crisis prevention. The three authorities' responsibilities and powers established by law remain unchanged. Swiss macroprudential instruments are planned to be introduced in 2012 by ordinance changes. Delegating decisions on such tools to an independent institution with a mandate to contribute to financial stability, such as the SNB, could result in more timely decisions and strengthen the independence of decisions from the political process. Preventive action by timely application of macroprudential tools is crucial to mitigate financial imbalances.

A further question is which institution should be responsible for the new macroprudential tools. Monetary policy and macroprudential policy both have an effect on the whole financial system (Figure 2.8) and require macroeconomic analysis. FINMA is responsible for microprudential policy, which is aimed at individual institutions and is therefore not focussed on system-wide risks. It does therefore not produce expertise on macroeconomic analysis. Central banks have an advantage in applying time-variant or counter-cyclical macroprudential tools, related to the cyclical behaviour of the financial system and the wider economy. Until now, the only precautionary measure the SNB could employ was to issue a warning. Experience has shown that warnings alone are not enough (Jordan, 2010).

Figure 2.8. **Policy framework**



These arguments suggest that the SNB should be responsible for designing and implementing new macroprudential tools. A single authority for macroprudential policy would foster efficient and timely decision-making. The SNB could put in place a committee in which FINMA and officials from the Federal Finance Department participate. In addition, independent outsiders may be useful to avoid group thinking. However, the committee would need to be integrated in the SNB, similar to the envisaged Financial Policy Committee that will be part of the Bank of England.

The Swiss government should prepare a legal basis for the use of time-variant or cyclical macroprudential tools by the SNB. The role of the SNB in microprudential regulation should also be strengthened to help ensure that external effects of financial intermediaries are adequately taken into account. For example, the SNB could be required to propose measures to incorporate system-wide risks in regulation. FINMA could be required to either comply or explain, while retaining its ultimate regulatory competence.

The FDF, FINMA and the SNB have created a working group to further review macroprudential regulation and supervision. It will review availability of data, the adequacy of existing macroprudential instruments and the need for new instruments, including a countercyclical capital buffer, which could be introduced in 2012. The working group also discusses governance issues related to the implementation of macroprudential measures.

Specific macroprudential tools tools should apply to mortgage markets

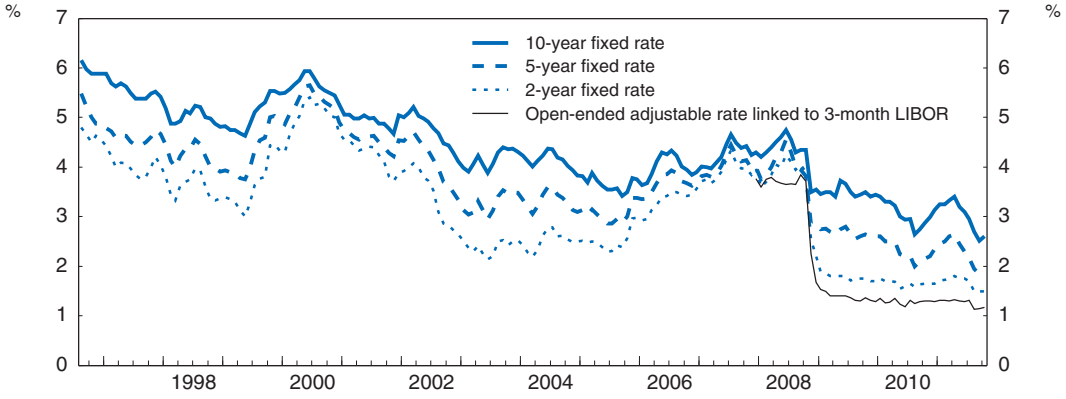
The new Basel III framework provides for a countercyclical capital buffer, ranging from 0 to 2.5% of risk-weighted assets that can be adjusted over time. If lending growth relative to GDP growth is above trend, the buffer should be increased. This countercyclical buffer is a major step in the right direction. But the question is whether the size of the countercyclical buffer is large enough to damp credit cycles. In addition, the buffer is crafted in terms of capital adequacy requirements (CAR). It may be useful to include a countercyclical component in the leverage ratio as well. This is in particular important for Switzerland, as the planned leverage ratio may be more binding than the capital ratio for the Big-2 Swiss banks. Other macroprudential tools can be targeted at sub-sectors. Margin requirements can, for example, be increased to mitigate rising equity prices, while loan-to-

value ratios or debt service-to-income ratios can be regulated to damp mortgage lending. The Basel III capital buffers will be phased in from 2016 onwards, which may be too late to prevent persistent excessive mortgage growth (see below). Beyond this capital buffer, specific macro-tools should apply to mortgage lending as mortgage debt has risen more than GDP in recent years (Figure 2.6), from high levels. Gross household debt relative to GDP in Switzerland is among the highest in the OECD, which may aggravate the consequences of a credit crunch or a sudden rise in interest rates, even if net household wealth is high. It is welcome that the working group set up by the authorities is considering the introduction of counter-cyclical capital buffers especially to be able to address excessive lending growth, which may take effect in 2012.

Low interest rates have contributed to the growth in mortgages. Interest rates on mortgage loans have fallen to historically low levels across the whole spectrum since 2008 (see Figure 2.9). Flexible rates fixed for 3 month or 2 years, for example, have even dropped below 2%. Mortgage funding costs fell to historically low levels by mid-2010, making mortgage financing very attractive to the public. The low interest rates not only reflect low policy rates and the attractiveness of Swiss debt issuance in international capital markets, but also unusually low risk premia on domestic mortgage loans, as reflected in the spread between mortgage rates and the corresponding maturity swap rate. Strong housing demand has pushed up prices, which have grown by 5% according to recent data (Figure 2.10). Fundamental factors, in particular, immigration, have contributed to demand pressure. Nonetheless, persistent strong growth of house prices could result in a housing bubble. There are certain "hot spots" such as Geneva, Zurich and central Zug, with higher increases than the overall average of 5%, where such a bubble may have emerged already.

Figure 2.9. **Interest rates on mortgage loans, 1996-2011**

Monthly data

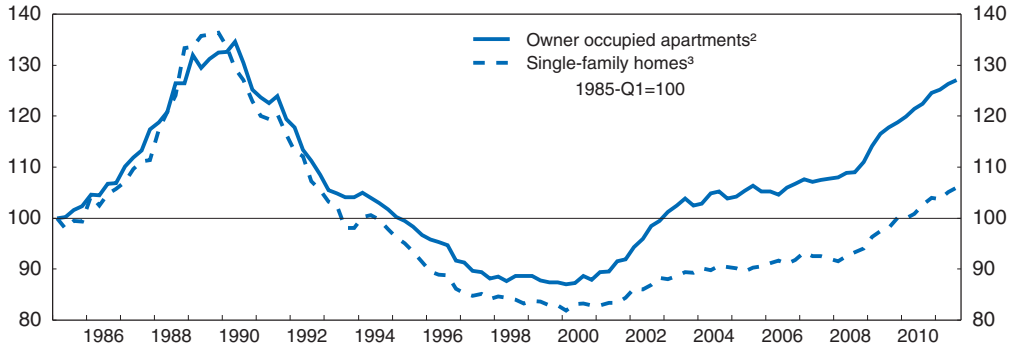


Source: SNB.

StatLink http://dx.doi.org/10.1787/888932560531

The SNB may need to apply macroprudential tools, such as limiting the loan-to-value ratio or the debt service to income ratio, to mitigate mortgage growth. The Swiss Banking Association has issued a non-binding code for mortgage financing (Swiss Banking Association, 2003). The code recommends that the loan-to-value ratio should be limited to 100%, which is rather high. By comparison, Sweden has recently introduced a maximum permitted loan-to-value ratio for residential mortgages of 85%. The Swiss voluntary code is

Figure 2.10. **Real house price developments in Switzerland**[1]



1. Deflated by CPI.
2. Two to five rooms.
3. Four to six rooms.

Source: SNB, *Monthly Statistical Bulletin* November 2011.

StatLink http://dx.doi.org/10.1787/888932560550

currently under review. However, a code based on self-regulation cannot be enforced. It is important that the Federal Council prepares the legal basis for macroprudential instruments, including a loan-to-value ratio and a debt service-to-income ratio. The SNB should also make preparations for implementing legally binding loan-to-value ratio and/or debt-to-income ratio instruments. Such instruments will require improvements in data availability. In particular, data on average loan-to-value ratios or their distribution are only available for newly issued mortgages since the beginning of 2011. At present, the SNB does not have powers to require banks to provide data in a way that allows such aggregate indicators to be constructed. The SNB should be enabled to collect all the necessary data for effective oversight over the domestic mortgage market.

Box 2.1. **Summary of main recommendations for strengthening financial regulation**

Reducing financial risks stemming from the largest banks and insurance companies

- The amount of loss-absorbing capital the Big-2 hold as a percentage of total assets should be raised rapidly.
- A stricter leverage ratio requirement should be implemented. Preferably, common equity should contribute a larger share to the capital requirement.
- Credible and internationally co-ordinated resolution mechanisms at the group level should be in place for the Big-2 before any reductions in capital requirements are granted. Authorities should prepare a scenario in which the Big-2 banks would convert their CoCos simultaneously.
- The envisaged resolution plans for the Big-2 should be extended to the group-level of the large Swiss financial institutions and discussed in the supervisory colleges.
- The authorities should require resolution plans to be developed for the large Swiss insurers.

Box 2.1. **Summary of main recommendations for strengthening financial regulation** *(cont.)*

Improving regulation of other financial institutions

- Consideration should be given to improving appointment procedures for cantonal management, for example, by introducing independent appointment commissions consisting of experts.
- Explicit government guarantees to the cantonal banks should be eliminated.
- The deposit insurance scheme should be partially funded.
- The governance rules for pension funds should include requirements about the financial expertise of pension funds' boards of trustees.
- The discount rate for valuing pension fund liabilities should be moved closer to market rates, for example by shortening the period over which asset market performance is assessed. Alternatively, the return on Swiss government bonds with longer maturity, such as 30 years, could be included while raising the weight of government bonds in the calculation of the discount rate.

Strengthening the macroprudential policy framework

- Instruments should be introduced that allow macroprudential requirements to be imposed, such as time-variant counter-cyclical capital buffers or temporary measures to slow excessive lending growth. The SNB could be given the powers to introduce such counter-cyclical or time-variant requirements.
- The authorities should monitor closely further developments in mortgage lending and house prices. The SNB should be enabled to collect all the necessary data for effective oversight over the domestic mortgage market. If mortgage lending growth is excessive, regulatory measures should be taken, for example, to limit the loan-to-value ratio or the debt service-to-income ratio.
- The role of the SNB in microprudential regulation should be strengthened to ensure that system-wide risks are taken into account in such regulation. For example the SNB could be required to propose measures to incorporate system-wide risks in regulation.

Notes

1. Note that Crédit Suisse reports on the basis of US GAAP, which allows netting. UBS reports on the basis of IFRS, which is gross.
2. Under replacement value netting, the net present value (replacement value) of contracts will be netted when enforceable netting agreements are in place. This is allowed under US GAAP. However, the underlying gross positions are then not transparent. IFRS therefore requires to report on a gross basis.
3. The direct fiscal costs to support the financial sector have been estimated to amount to 5% of GDP while the loss in output was 25% of GDP in the recent financial crisis (Laeven and Valencia, 2010).

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