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2010 Financial Stability Report

Foreword

This report highlights the main trends in the Swiss banking sector with respect to their impact on financial stability, to which the Swiss National Bank (SNB) is required to contribute in accordance with the National Bank Act (art. 5 para. 2 (e) NBA). A stable financial system can be defined as a system which fulfils its functions and is able to withstand the shocks to which it is exposed.

Through this report, the SNB conveys its evaluation of the stability of the banking sector and provides the general public with relevant information and indicators. The report gives the SNB the opportunity to highlight tensions or imbalances that could jeopardise this stability. It is not the purpose of this report to analyse the solvency of individual financial institutions, and individual banks are only considered if this is deemed relevant for obtaining an overall picture.

Overall assessment

Improvement in economic and financial conditions

In 2009, the environment in which the Swiss banking sector was operating improved considerably. However, the recovery that began in the second half of the year was essentially due to the large-scale economic support measures taken by governments and central banks. For support measures in the banking sector alone, the major industrial nations committed to pay sums amounting to almost 20% of gross domestic product (GDP).¹ Consequently, when assessing the recovery, it should be categorised as fragile. Thus, the situation facing the banks remains difficult and the uncertainty about further developments is correspondingly great.

After the huge slump in the global economy at the end of 2008, all major economic regions began to pick up from mid-2009 onwards. Despite these positive dynamics, 2009 was the first year that average global GDP had receded since the Second World War. Accordingly, governments and central banks around the world maintained their expansionary monetary and fiscal policies. As a result of these state support measures and of decreasing tax revenues, the indebtedness of many governments – and with it sovereign credit risk – rose considerably. The economy in Switzerland followed a similar path, although the decline in economic activity was moderate by comparison with that experienced in other countries.

¹ This reflects the total volume of government support measures for 11 industrial nations (Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, Switzerland, US and UK) between September 2008 and June 2009. The figures vary substantially from one country to another. The measures are (i) capital injection, (ii) explicit guarantees on debt instruments, (iii) purchase of/guarantee for bank assets. Source: 'An assessment of financial sector rescue programmes', *BIS Papers*, No. 48, July 2009. However, according to the IMF, effective costs of these government support measures have been rather low so far. Direct support to the financial sector and

More generally, credit quality abroad (US, Europe) deteriorated further in the course of 2009 due to the difficult economic conditions. For Switzerland, by contrast, indicators such as the number of household and corporate bankruptcies for 2009 suggest that credit quality remained good.

The situation also eased appreciably on financial and capital markets during the course of 2009, as compared to the height of the crisis. Share prices increased substantially, premia on unsecured money market transactions fell considerably and risk premia on corporate debts, particularly those of large financial institutions, also dropped sharply. The prices of CDS contracts on government bonds, which had risen substantially towards the end of 2008 and beginning of 2009 due to the expensive rescue packages and the anticipated lower tax revenues, decreased for many – but not all – countries. Towards the end of 2009 and in the first few months of 2010, the risk of default – as assessed by the market – increased again for a number of countries, particularly in southern Europe, to a level (in some cases) substantially above that recorded at the end of 2008 and beginning of 2009. In response to these developments, Greece announced a restructuring programme in March 2010, which was supported by an internationally coordinated finance package. In May 2010, the EU announced an additional EUR 500 billion support package for euro area countries in difficulty. In the light of these developments, CDS prices for financial institutions – particularly for those in Europe – have risen again.

Situation of Swiss banking sector has improved but risks remain high

In 2009, the situation of the Swiss banking sector improved compared to 2008, and the level of stress was thus lower (cf. chapter 5, p. 33). The improvement was attributable to the big banks, whose situation either stabilised (UBS) or normalised (Credit Suisse) following a catastrophic year in 2008. Like most international big banks, the two Swiss institutions benefited particularly from better conditions on the financial markets (partly attributable to the major government support measures). After the record losses of the previous year, the two big banks increased their profitability considerably. Credit Suisse recorded an annual profit of some CHF 7 billion while UBS achieved a reduction in its loss compared to 2008, posting a CHF 3 billion loss in 2009 as against losses of CHF 21 billion the

discretionary fiscal stimulus stemming from the crisis has made only a minor contribution to the increase in public debt. Source: IMF, *World Economic Outlook*, April 2010.

previous year. At the same time, UBS and Credit Suisse significantly reduced their balance sheets during the course of 2009, thereby further decreasing their risk. As a consequence of these developments, the capital situation at both banks improved considerably in 2009. Market indicators also reflect the improved situation at the big banks. CDS prices for the two institutions decreased considerably in 2009 and their share prices rose again, although the increase was very moderate in the case of UBS.

During the second quarter of 2010, however, CDS prices for both institutions rose again. The market assessment of the big banks, particularly of UBS, is that their situation remains tight. In view of the difficult environment and the high level of uncertainty with regard to further developments, both institutions continue to face high credit and market risk.

The risks of the big banks may, in particular, be judged as substantial when set in relation to their capacity to absorb losses. It is true that the two big banks have improved their capital situation, as mentioned before. This applies especially to their risk-weighted capital ratios, which are also particularly high by international standards. However, their leverage remains elevated. Accordingly, the margin for error that the big banks can afford remains narrow, and any misjudgement of the risks could have serious consequences. As the latest crisis clearly showed, a misjudgement of this kind can never be excluded, not even when extremely sophisticated risk management models are used. In other words, even the best risk management cannot offset the vulnerability of the big banks to shocks arising from their current leverage.

Moreover, two factors negatively affect the big banks' capacity to absorb losses. First, their profit potential is likely to have declined. Profitability has even fallen in areas such as wealth management, which had previously been generating steady high earnings over a long period of time. In view of the difficult macroeconomic and structural conditions (in the latter case, this relates to disputes over Swiss tax regimes and banking secrecy) and the associated uncertainty, a full recovery of profitability does not appear very likely. This applies particularly to UBS. Second, in the event of another crisis, it would be more difficult for the institutions to obtain substantial amounts of additional capital quickly. On the one hand, their attractiveness has declined because of their lower

profit potential, as mentioned above. On the other, potential providers of capital will be more cautious in the light of their experiences during the recent crisis.

It is therefore important that the big banks further strengthen their resilience along the lines laid down in the more stringent capital regulations introduced in autumn 2008. Although both of the institutions already fulfil the targets for risk-weighted capital ratios that will apply from 2013, they are still significantly below the target for the FINMA leverage ratio,² which will also apply from 2013.

The profitability of banks with a domestic business focus – cantonal banks, regional banks and Raiffeisen banks – is still well above the long-term average, despite the pressure on their interest margins. Capitalisation of these bank categories also remains high by historical standards. So far, the downturn in the economy has had hardly any impact on these bank categories. This is partly due to the fact that write-downs and provisions on domestic lending have been relatively moderate to date.

However, overall, risks at banks with a domestic business focus can be seen as higher than in the previous year. On the one hand, they face increased credit risk. First, they sharply raised their lending volume during the course of 2009, particularly in mortgage lending. Second, the results of a survey conducted by the Swiss National Bank (SNB) in the first quarter of 2010³ give first indications of a build-up of risks in the Swiss mortgage market (cf. box 2, p. 25). Finally, indicators such as spreads on corporate bonds, which are still high in Switzerland, as well as significantly increased rates of unemployment, suggest higher default rates to come and, consequently, growing loan losses. On the other hand, interest rate risk has also increased further from a historically high level.

Outlook

The outlook comprises two scenarios. The baseline scenario represents the most likely developments in economic conditions based on current forecasts. In order to assess the impact of significantly worse developments than currently expected, the SNB also considers an adverse scenario. Such a scenario describes hypothetical yet realistic developments in the macroeconomic factors.

The baseline scenario assumes a further gradual recovery in the economy. Under this scenario, credit risk abroad declines moderately from a high level. In Switzerland, by contrast, credit losses are

2 The FINMA leverage ratio is defined as the ratio of core capital to an adjusted balance sheet total (where domestic lending business, in particular, is excluded).

3 Thirty-one banks, with a total market share of 92% of the domestic mortgage loan market, participated in the survey.

assumed to increase slightly from a low level. The situation on financial markets remains stable. As a result, the exceptional government support measures are also phased out and this has a beneficial impact on state solvency. Despite further improvement, this scenario depicts an environment that remains difficult for banks. Financial market conditions will be less favourable for the big banks than they were in 2009. In the case of banks with a domestic business focus, it can be assumed that interest-related business, which is their most important source of income, will be negatively affected due to ongoing pressure on their interest margins. However, the greatest challenge in this scenario is the materialisation of credit risk. Losses on the banks' foreign loans could be substantial, while losses on their Swiss loans are expected to be moderate. Both big banks and banks with a domestic business focus should be in a position to bear such losses.

A realistic adverse scenario is based on the assumption that the fragile economic recovery comes to a halt (double dip). Countries are no longer in a position to maintain their exceptional support measures, risk premia increase, asset prices fall and credit quality abroad remains low for a longer period of time; in Switzerland, it deteriorates significantly. This scenario represents a major challenge for the Swiss banking sector. Based on historical experience, (loan) losses related to such a scenario may be substantial. The large capital buffers held by banks with a domestic focus are therefore necessary. In addition to the high credit losses, the adverse scenario encompasses considerable market losses. This makes the impact of such a scenario on the big banks all the greater. Consequently, a substantial further strengthening of resilience as well as conservative treatment of risk will be important at the big banks.

'Too big to fail' issue still present

In its last *Financial Stability Report*, the SNB drew attention to the 'too big to fail' problem, which is particularly acute in Switzerland. Although both big banks significantly reduced their balance sheet totals last year, the 'too big to fail' issue remains. The big banks' balance sheet totals still amount to several times Swiss GDP. Moreover, the reduction was mainly attributable to a retrenchment from foreign assets. Their domestic market share – and hence the key component of their systemic importance – is just as high as before (cf. box 1, p. 18).

Consequently, the SNB is working within the commission of experts convened by the Federal Council at the end of 2009 to bring about an alleviation of the 'too big to fail' issue. At the end of April 2010, the commission published an interim report, in which a number of key measures were proposed. One aim of the measures is to reduce the probability that a systemically important institution will fail. Another aim is to reduce the costs to the economy in the event of such a failure, thereby avoiding the need for state intervention in a crisis. Apart from more stringent liquidity requirements, stricter provisions regarding risk concentrations, and adjustments to the organisational and legal structure of systemically important institutions, these measures also include the introduction of progressive capital requirements. This means that the more systemically important a bank is, the higher the proportion of capital it would be required to hold. In the view of the SNB, the more stringent provisions must go beyond the new capital requirements for the big banks which were decided at the end of 2008 and which will apply from 2013. The 2008 reform was a response to the shortcomings in the capital requirements revealed by the crisis, which are, primarily, insufficiently conservative backing of risk with capital (particularly in the trading book), and the lack of both a limit to leverage and a countercyclical component in capital requirements. This reform was not aimed at addressing – and will not be able to address – the 'too big to fail' issue in Switzerland.

1 General economic and financial conditions

General economic and financial conditions for the Swiss banking sector have improved considerably since the peak of the recent crisis. They are still challenging, however. This is especially true with regard to credit risk, which increased substantially in 2009 and exceeded previous peaks in many countries. Moreover, in some countries, sovereign risk has increased significantly as well.

Under the baseline scenario, general conditions for the Swiss banking sector are expected to improve in 2010. Economies will continue to recover slowly, financial markets will remain stable and the high levels of credit risk experienced in many countries will decrease. In Switzerland, however, loan losses are likely to increase slightly from their low level.

A realistic adverse scenario is that the economic recovery would come to an end in 2010. In addition, due to mounting solvency problems, governments would have growing difficulties in supporting the economy and the financial sector. As a result, risk premia would increase again, asset prices would fall and credit risk would remain high for a longer period.

Economic environment

In early 2009 many economies experienced a very pronounced decline in output. All major economies started to recover from the crisis in the second half of 2009 (cf. chart 1), supported by an easing of monetary conditions and large fiscal stimulus packages. The overall GDP decline in 2009 was

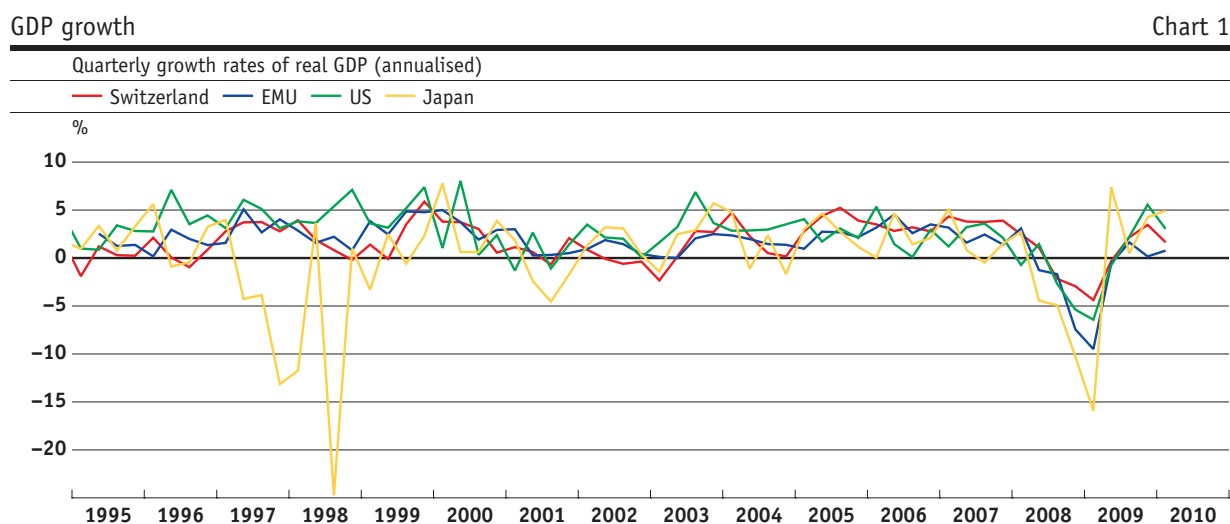
lower than predicted a year ago. For most countries, however, the decrease remains the sharpest experienced since the Second World War. This is especially true for the euro area (-4.1%) and for Japan (-5.2%). The US economy also contracted sharply by historical standards (-2.4%). The Swiss economy declined by 1.5% – in other words, only moderately in comparison with other economies and far less than during its deepest post-war recession, in 1975 (-6.7%).

The IMF⁴ and other institutions expect that the advanced economies will continue to recover, although at a relatively slow pace. High unemployment will hamper consumption, and monetary and fiscal stimulus measures are expected to be reduced. According to IMF forecasts, emerging markets and especially dynamic Asia will recover much faster than the advanced economies.

Nevertheless, the economic recovery is still fragile. Hence, a 'double dip' characterised by a second recessionary phase remains a realistic adverse scenario. Under such a scenario, increasing concerns related to sovereign debt sustainability would be a factor amplifying the negative economic dynamics. The high and rapidly increasing levels of public debt in many countries would limit governments' capacity to further support economic activity through fiscal policy and would negatively affect funding costs for both the public and private sectors.

Sovereign risk

Large stimulus packages and decreasing tax revenues have led market participants to rate the credit risk of sovereign debt as substantially higher. This is indicated by the development of the pre-



Source: SNB

4 Cf. IMF, *World Economic Outlook*, April 2010.

mia for sovereign credit default swaps (CDS). Especially following the announcements of financial sector support packages in the aftermath of the Lehman Brothers default in 2008, these premia increased strongly, before declining in the first half of 2009. For some countries, however, there was a pronounced rebound in late 2009/early 2010. Sovereign CDS premia for Greece, Italy, Portugal and Spain reached a new peak in the first few months of 2010 (cf. chart 2). In response to these developments, the Greek government announced an economic and financial adjustment programme which is supplemented by an internationally coordinated financial support package. However, market reactions to this announcement were rather negative and risk premia stayed at a very high level. To calm markets and preserve financial stability in Europe,

the EU announced a support package of up to EUR 500 billion. Furthermore, the IMF announced that, if requested, it would provide additional financial assistance.

Under the baseline scenario, the withdrawal of fiscal support measures and slightly increasing tax revenues will mitigate sovereign risk. Nevertheless, given the high level of indebtedness of many countries and the moderate growth expectations, the outlook for sovereign risk remains gloomy. Should sovereign borrowers' financing problems increase and spread, this would lead to higher risk premia on financial markets and weaker economic prospects for the affected countries. This could be one triggering factor for the developments as described by the adverse scenario.

Interest rates

Monetary policy continued to be expansive and short-term interest rates remained at a very low level throughout 2009. Long-term interest rates increased noticeably in the second quarter of 2009, especially in the US (cf. chart 3), reflecting higher inflation expectations but also a reversal of the flight to quality. They have since remained almost unchanged or, in the case of the euro and the Swiss franc, declined again. For all major currencies, they are significantly below their long-term average.

Under the baseline scenario, both short and long-term interest rates are expected to increase moderately. Should the adverse scenario materialise, both the direction and the magnitude of interest rate developments are uncertain. On the one hand, rising risk premia would exert upward pressure on interest rates. On the other hand,

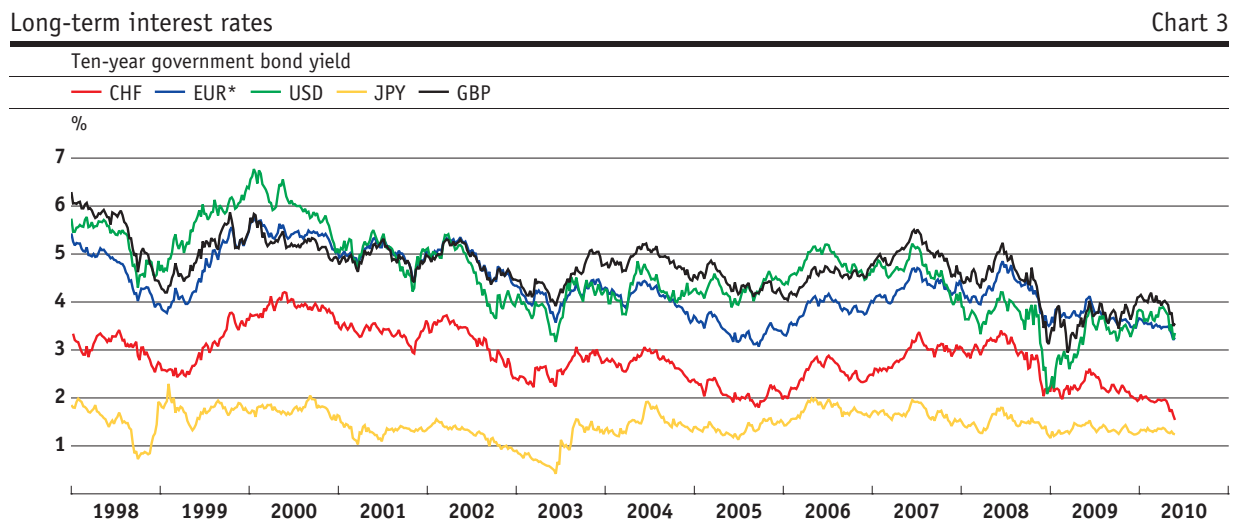
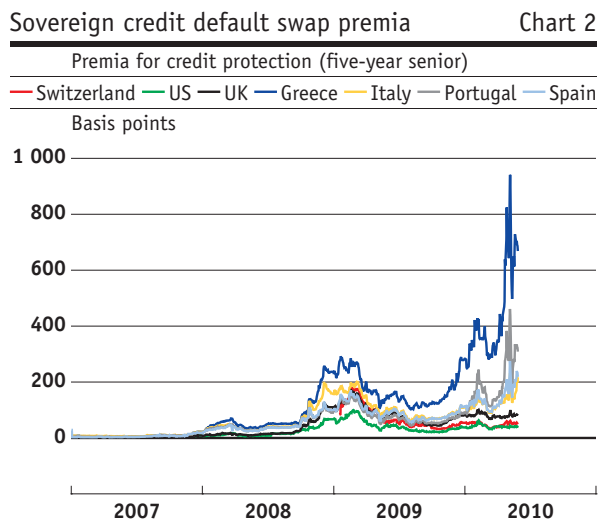


Chart 2: Source: Thomson Datastream

Chart 3: Source: Thomson Datastream
*Euro benchmark bond, synthetic.

downward pressure could be expected to result from lower inflation expectations.

Stock market

Stock market prices have increased substantially since reaching a trough in spring 2009. As a result, a considerable portion of the decline in stock prices experienced after the beginning of the crisis has been offset (cf. chart 4). The increase in stock prices can be seen as a return to levels that are broadly justified based on fundamental factors like earnings and interest rates. However, as pointed out by the IMF,⁵ other factors, such as a resurgence of risk appetite in the markets, may also have played a material role in this development.

Under the baseline scenario, stock prices will remain at their current levels or increase slightly.

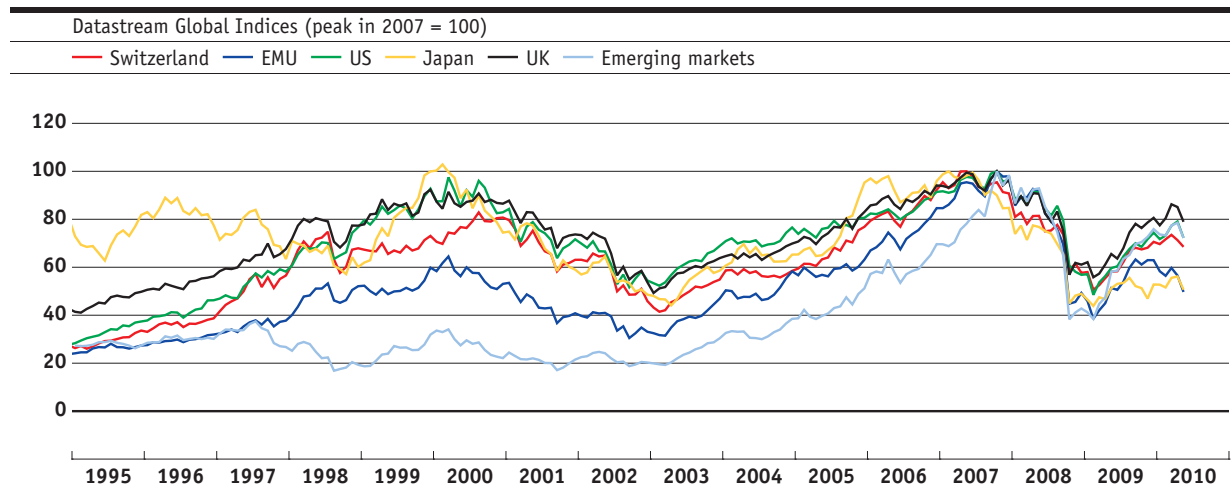
In many stock markets, price/earnings ratios increased strongly in 2009 (cf. chart 5). This reflects the steep rise in stock prices, but also the fact that earnings declined. If, as expected, earnings continue their gradual return to trend, current stock prices appear justified. Alternative measures for stock valuation (e.g. price to long-term average of earnings, or a valuation model based on discounted dividends) also justify the current price levels. Should the adverse scenario materialise, however, risk premia would increase and earnings would remain below trend. This would result in pronounced downward pressure on stock prices.

Real estate markets

In the US, the UK and some euro area countries, the decline in real estate prices slowed in

Stock market indices

Chart 4



Stock market price/earnings ratios*

Chart 5

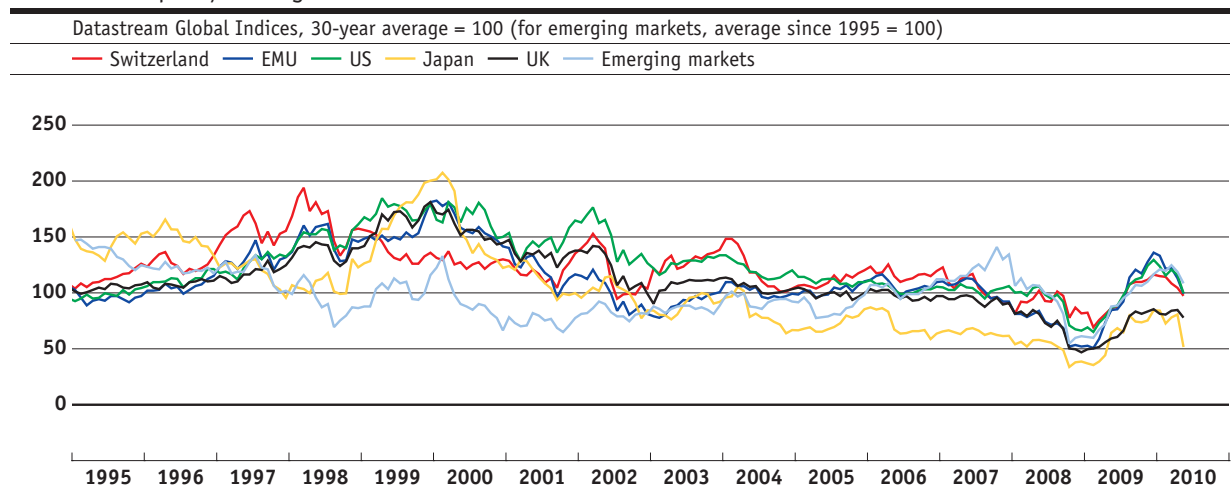


Chart 4: Source: Thomson Datastream

5 Cf. IMF, *Global Financial Stability Report*, April 2010.

Chart 5: Source: Thomson Datastream

* Earnings are realised earnings per share.

2009 (cf. chart 6). Commercial property prices started to fall later than those for residential property. However, the overall price decline in this area was larger. In contrast to developments in many other countries, residential real estate prices in Switzerland continued to grow in 2009, while commercial property prices have been rather flat in recent years.

Under the baseline scenario, the real estate price decline in the US and the UK will slow further, or even reverse. The current valuation of property markets in the US and the UK appears rather low relative to fundamental factors such as income, rents and interest rates. However, should the adverse scenario materialise, property prices would continue to decrease for much longer than currently expected.

Swiss real estate prices are expected to remain unchanged under the baseline scenario. Currently, there are no clear signs that – overall – property prices in Switzerland might exceed the levels that are justified based on fundamental factors. Hence, under the baseline scenario, no material downward price correction is expected. However, the higher valuations as well as the weak economic environment and a normalisation of interest rates make a further price increase less likely. For some regions (especially Geneva) and for the segment of owner-occupied flats, strong price increases in recent years have led to valuations that are difficult to justify on the basis of fundamental factors. Under the adverse scenario, a decline in GDP and increasing risk premia would put real estate prices under pressure at national level.

Credit quality

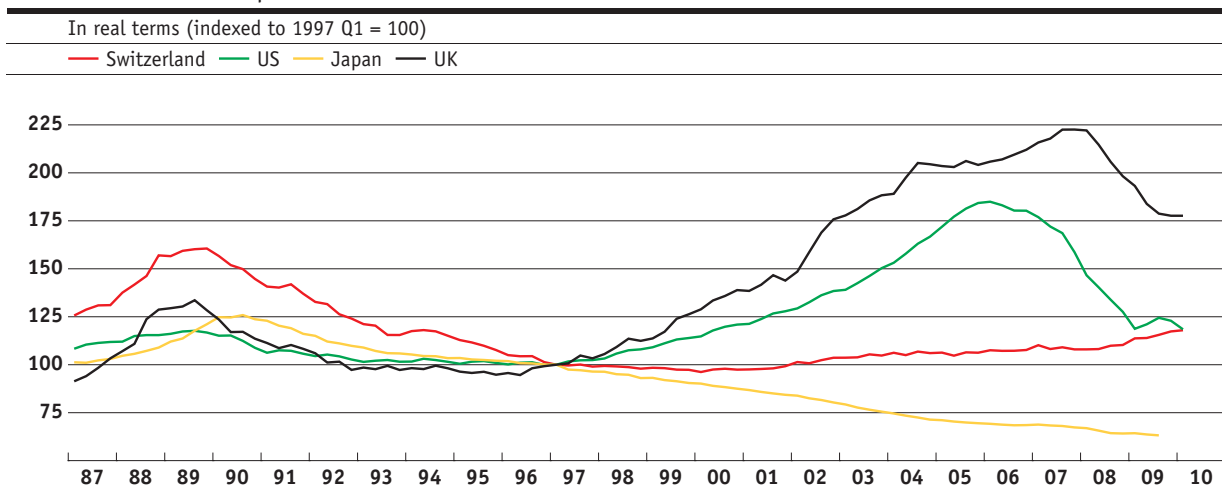
Due to the weak economic environment, falling real estate prices and the high leverage of companies and households, credit quality in the euro area and the US declined substantially in 2009. According to the ECB, the number of defaults among companies and households in the euro area increased in 2009, leading to write-down rates on household mortgages, and especially on corporate loans, that exceeded their previous highs of 2005.⁶ In the US (cf. chart 7, p. 12), overall delinquency rates on loans increased further in 2009, surpassing previous peaks. Delinquency rates on business loans, however, are still below their levels of the early 1990s.

In Switzerland, the economic downturn was less pronounced than in the US and the euro area, and real estate prices did not decline. Accordingly, the credit quality of Swiss borrowers remained relatively good in 2009. While the number of corporate insolvencies was up by 4%,⁷ the comparable figure for households fell by 5%.

Under the baseline scenario, credit risk in the US and the euro area will decline, but remain above its low pre-crisis level. This is anticipated by the ECB and the IMF, and indicated by movements in CDS premia and bond spreads. As shown in chart 8 on p. 12, corporate bond spreads have decreased substantially since peaking in late 2008/early 2009. However, they remain at levels close to their previous peak in 2002. A moderate improvement in the quality of business loans is also reflected by Moody's downgrade/upgrade ratio for US and European companies. This ratio has recently declined from a high level. For US compa-

Residential real estate prices

Chart 6



Sources: BIS, IMF, Standard & Poor's/Case-Shiller, Wüest & Partner

6 Cf. ECB, *Financial Stability Review*, December 2009.

7 Adjusted for a change in legislation. Source: Creditreform, www.creditreform.ch.

nies, it is now close to its long-term average, but for European companies it is still above its long-term level. Under the adverse scenario, a further reduction in GDP and real estate prices could be expected. As a result, default rates would remain high over a longer period.

In Switzerland, default rates among households and companies are currently lower than what one would expect immediately after a recession. Therefore, under the baseline scenario, write-downs on loans will increase from their very low level. This is also indicated by Swiss corporate bond spreads, which are still high in historical terms (cf. chart 8). Under the adverse scenario, a strong increase in default rates among Swiss borrowers could be expected.

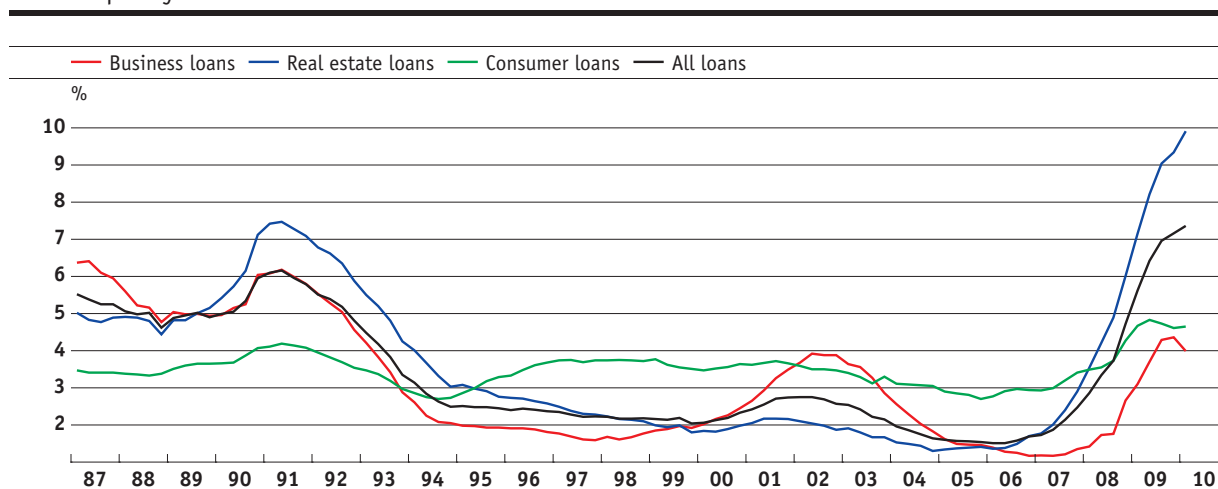
International financial institutions

The soundness of international financial institutions has improved since the peak of the crisis. Capital ratios of most international banks increased in 2009, mainly due to a reduction in total assets. In addition, the profitability of many institutions has also improved considerably. Supported by central bank and government measures, funding conditions have eased substantially. This is indicated by the development of the IMF Funding and Market Liquidity Index as well as the movements of the risk premia charged in the interbank markets. As can be seen from chart 9 on p. 13, these risk premia have decreased significantly since their peak.

An improvement in the soundness of financial institutions is also indicated by the development of CDS premia. These premia decreased substantially

US delinquency rates

Chart 7



Bond spreads

Chart 8

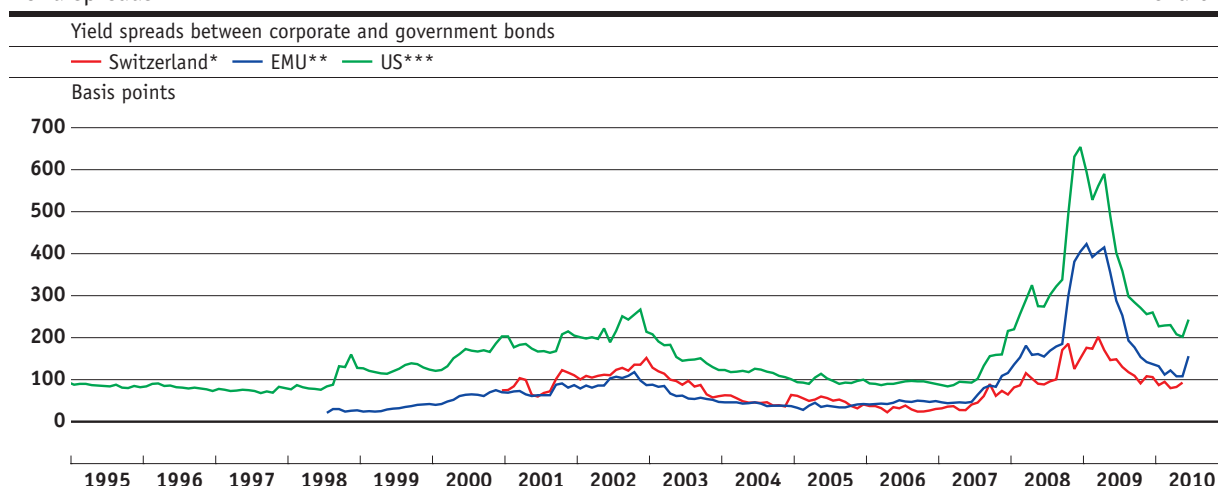


Chart 7: Source: Federal Reserve

Chart 8: Source: Thomson Datastream

* Yields (spot rates) for Swiss investment grade corporate bonds and for Swiss Confederation bonds, calculated by the SNB.

** Euro-Aggregate Corporate (investment grade, EUR-denominated) and Euro-Aggregate Government AAA indices, Barclays Capital.

*** US Corporate (investment grade, USD-denominated) and US Treasury indices, Barclays Capital.

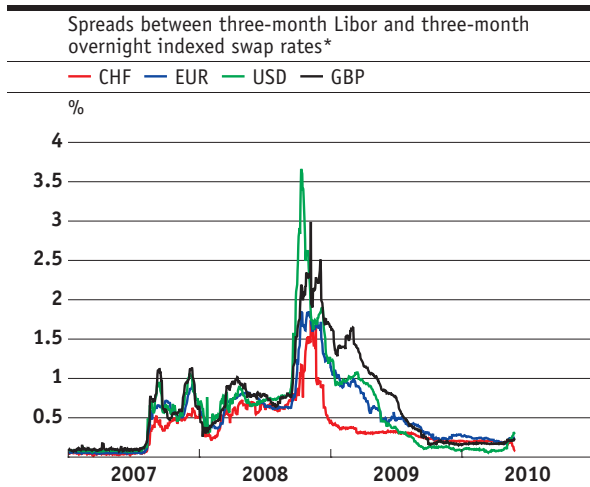
after their peak in spring 2009. However, they have recently increased again, especially for European banks (cf. chart 10). This shows that – overall – market participants are still concerned about the soundness of international financial institutions.

Under the baseline scenario, the soundness of international financial institutions will further improve. Profitability, however, will remain below its pre-crisis level. This is due, first, to the fact that credit risk is expected to remain relatively high by historical standards. Second, according to standard valuation models, stock prices currently reflect their fundamental values. Therefore, in contrast to a year ago, the scope for high trading income driven by an increase in stock prices seems limited. Finally, the uncertainty regarding the quality of banks' balance sheets remains high. According to IMF estimates,

banks will still have to write down about USD 0.8 trillion, a third of the total estimate of global bank write-downs for the period from 2007 to 2010.⁸

Under the adverse scenario, high credit and trading losses could be expected and, as risk premia would rise in general, funding conditions for banks would again tighten substantially. Developments as described by such a scenario would represent a serious source of stress for the financial system. This is because, first, the funding structure of many banks remains fragile and their short and medium-term refinancing needs are considerable. According to the IMF, banks will have to refinance USD 5 trillion within the next three years. Second, the financial capacity of governments to support troubled institutions is now substantially lower than prior to 2007.

Money market spreads Chart 9



Bank credit default swap premia

Chart 10

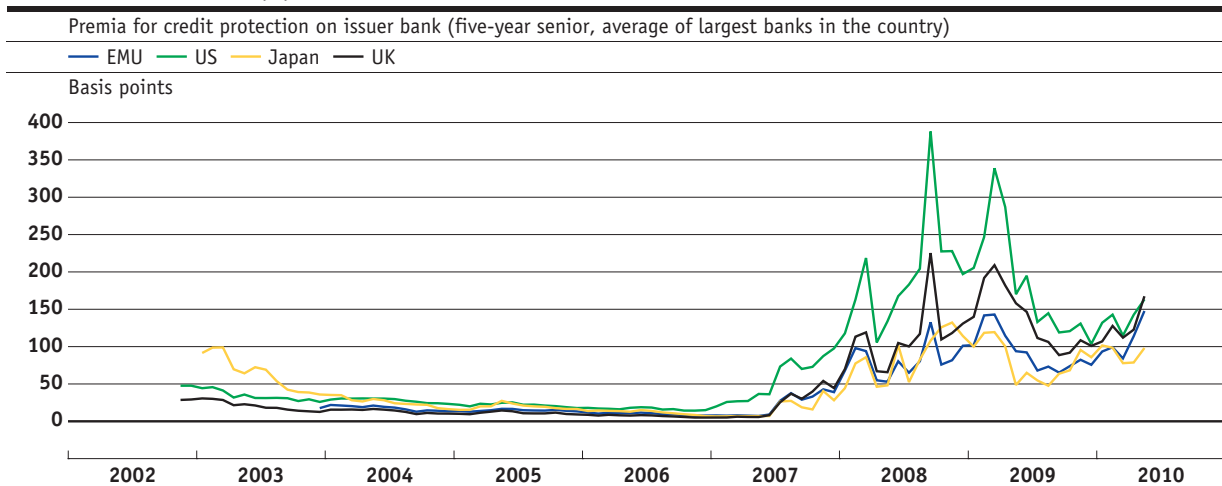


Chart 9: Sources: Bloomberg, SNB
*The overnight rates are: TOIS (CHF), EONIA (EUR), OIS (USD), SONIA (GBP).

8 Cf. IMF, *Global Financial Stability Report*, April 2010.

Chart 10: Source: Bloomberg

2 Profitability

A gradual recovery in international financial markets and economic conditions during 2009 resulted in a notable improvement in the profitability of the Swiss banking sector compared to 2008. These positive developments are important as profitability plays a key role in a bank's ability to build up a stronger capital base, resulting in a greater loss absorption capacity and greater stress resilience. Big bank profits have driven the banking sector's recovery, and they continued to improve into the first quarter of 2010. Banks with a domestic business focus remained profitable, with regional, Raiffeisen and cantonal banks maintaining profits well above their historical average, while Swiss private banks improved their profitability in 2009 despite negative net new money flows. The sustainability of these profits, however, is as yet uncertain and the outlook is still subdued.

Big banks start to recover while other bank categories remain highly profitable

Overall, the Swiss banking sector recorded an aggregate net profit of CHF 11 billion for 2009, up by CHF 32 billion from the record losses of 2008 (cf. chart 11). The improvement in the situation, when compared to 2008, was driven by the big banks. Despite losses amounting to CHF 3 billion in 2009, UBS experienced a significant improvement from the CHF 21 billion in losses suffered in 2008. Credit Suisse, on the other hand, reported CHF 7 billion in profits for 2009, up by CHF 15 billion from its 2008 figures. These positive developments have continued into the first quarter of

2010, with both banks reporting net profits of CHF 2 billion.

The picture for domestically focused banks such as cantonal, regional and Raiffeisen banks remains positive. Since 2008, net profits of both cantonal and Raiffeisen banks have increased, by 12% and 14% respectively. While remaining profitable, regional banks have suffered a 12% drop in earnings since 2008, largely attributable to falling interest rate margins. In all cases, banks with a domestic focus have sustained profits well above their historical average, amounting on aggregate to CHF 3 billion.

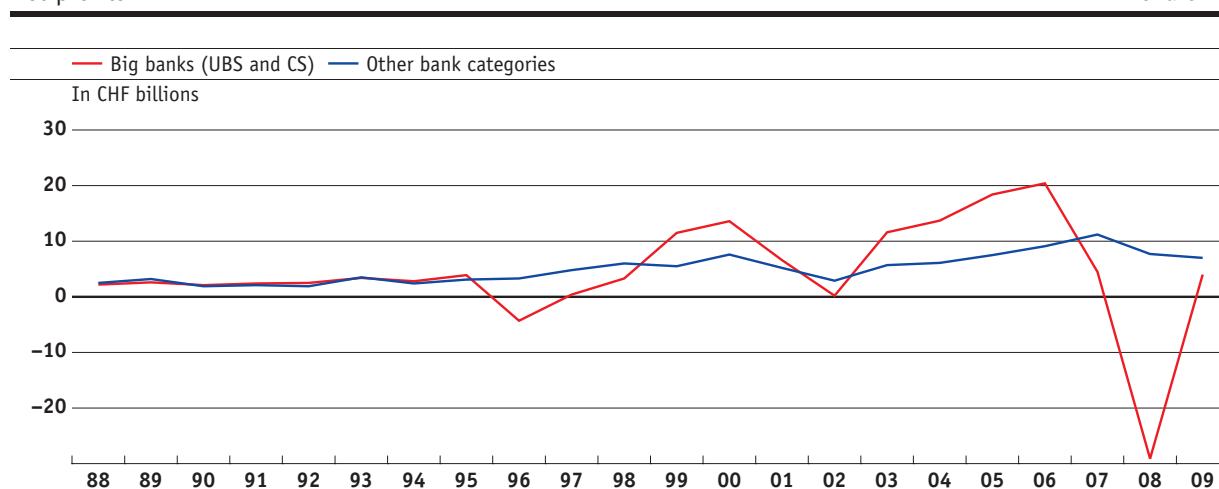
Swiss private banks' profitability grew by 12% in 2009, from CHF 1.5 billion to CHF 1.7 billion.⁹ Net new money flows¹⁰ at the unconsolidated level remained negative despite improving by around 50% from 2008 (from outflows of CHF 32 billion to CHF 16 billion).¹¹ The net outflows observed reflect the difficulties faced by private banks amid pressures on client confidentiality together with the general economic slowdown. Net new money at the consolidated level fell by 32% in 2009 (from CHF 51 billion to CHF 34 billion). That is to say, the outflows observed in Switzerland were more than offset by inflows to subsidiaries abroad.

Profitability, measured by return on assets (RoA), increased for the Swiss banking sector from -0.5% in 2008 to 0.3% in 2009. The recovery was driven by the big bank category, whose RoA improved significantly from -0.9% to 0.2%. Credit Suisse was the main contributor, with an RoA of 0.7% in 2009, compared with -0.2% for UBS.

For Raiffeisen and cantonal banks, RoA increased from 0.4% to 0.5% and from 0.5% to 0.6% respectively. RoA for regional banks fell from 0.5%

Net profits

Chart 11



Sources: FINMA, SNB

9 At the consolidated level, private bank profitability fell by 18% in 2009 from CHF 2.8 billion to CHF 2.3 billion.

10 Net new money captures the movement in invested assets, calculated as the difference between inflows and outflows of

invested assets from new and existing clients. Interest and dividend income as well as adjustments in value, from either market or currency movements, are not included.

11 By comparison, net new money flows of Credit Suisse improved from a reported outflow of CHF 3 billion in 2008 to inflows of CHF 44 billion in 2009. UBS continue to report negative flows of net new money despite an improvement from CHF -226 billion in 2008 to CHF -147 billion in 2009.

to 0.4%. Overall, however, the profitability of domestically focused banks remains above the 20-year historical average (cf. chart 12).

Cost efficiency of aggregate banking sector improves

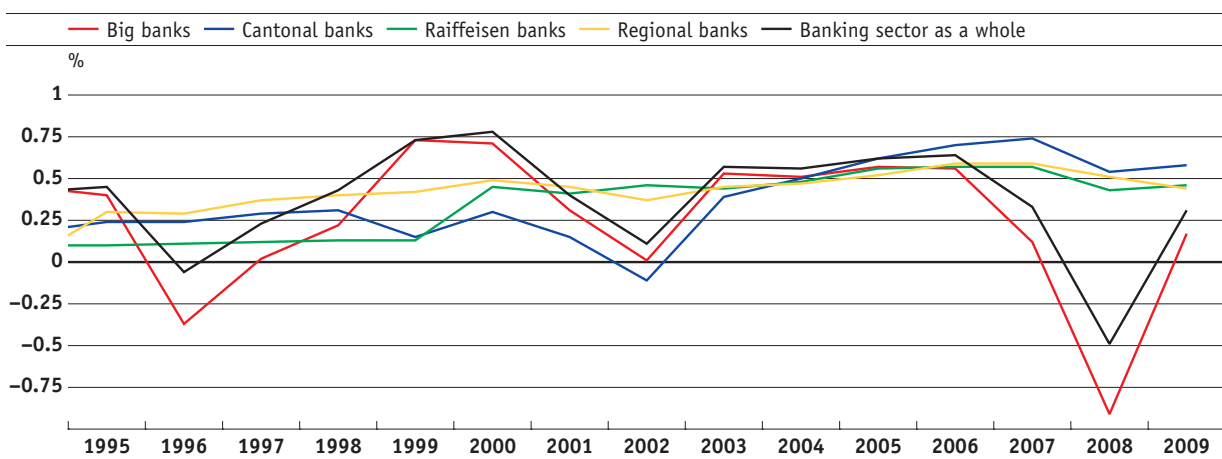
Costs in the Swiss banking sector have remained relatively constant while income has surged by 96% since 2008. Consequently, the cost-to-income ratio improved substantially, from 140% in 2008 to 70% in 2009. Despite this marked improvement, the cost-to-income ratio of the big banks (76%) remains well above that of the other bank categories, largely stemming from their historically high personnel costs relative to income. For the big banks, personnel costs over the last ten years have amounted to around 72% of total income, almost

double the figure for banks with a domestic focus (32%). The cost-to-income ratio of domestically focused banks ranges between 50% (cantonal banks) and 62% (Raiffeisen banks).

The income recovery was driven predominantly by the big banks, who reported CHF 56 billion in income compared to CHF 11 billion in 2008. For the big banks, income growth is largely attributable to trading income.¹² Credit Suisse generated CHF 12 billion¹³ in trading income compared with a loss of CHF 0.3 billion for UBS.¹⁴ For both big banks, the most important income component remains fees and commissions. However, compared to 2008, fees and commissions fell by 17%. This is largely due to a reduction in securities trading and investment activity fees, reflecting a general decline in client-driven business activity.

Return on assets

Chart 12



Income components

Chart 13

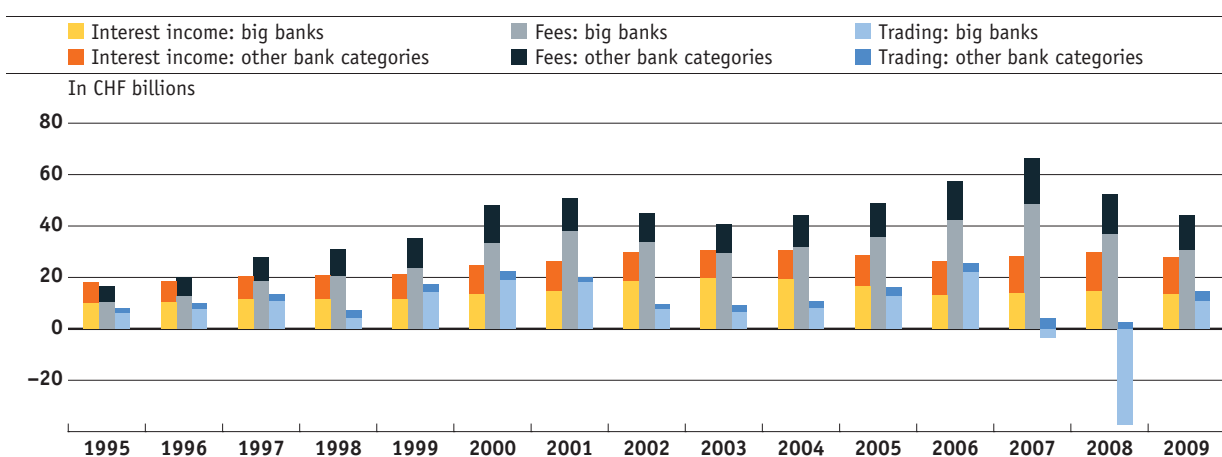


Chart 12: Sources: FINMA, SNB

Chart 13: Sources: FINMA, SNB

12 The *other income* category also increased substantially; however, this component is a relatively volatile and unimportant source of income for the big banks.

13 Source: *Annual Report 2009*. These numbers may vary slightly from those presented in table 1 on p. 16, as a result of different accounting standards being applied.

14 To a large extent, the improvement in UBS's trading revenues is derived from lower credit valuation adjustments for monoline protection, as well as lower price adjustments for positions transferred to the SNB stabilisation fund, resulting in losses of CHF 0.8 billion (2008: CHF -8 billion) and CHF 0.2 billion (2008: CHF -5 billion) respectively.

For the other bank categories, total income fell by 2%. Trading income also grew at these banks (60%). However, net interest income – which remains their most important income contributor (cf. chart 13, p. 15) – fell by 6% in 2009 compared with 2008, driving the fall in total income. Calculated as a percentage of total loans (a measure of the banks' margin from lending activities), interest income for domestically focused banks fell by 20 basis points to 1.7%.

Allowances, provisions and losses fall for all bank categories

Allowances, provisions and losses fell for all bank categories in 2009, although they remain high compared to pre-crisis periods (cf. chapter 3, p. 19). For the banking sector as a whole, they fell by 35% to CHF 7 billion in 2009. For the big banks on aggregate, CHF 4 billion in allowances, provisions and losses were recorded in 2009, of which CHF 2 billion was accounted for by loan losses. Loan losses for the big banks amounted to 0.3% of total loans in 2009, compared with 0.4% in 2008.

Banks with a domestic business focus reduced provisions by 17% in 2009 to CHF 0.5 billion. Excluding the big banks, allowances, provisions and losses for the Swiss banking sector remain low in historical terms, at around CHF 2 billion.

Outlook

The outlook as regards the profitability of the Swiss banking system, and hence its ability to further build up its capital buffer, is still subdued. Under the baseline scenario, the profitability of the big banks continues to recover with the improvement in economic conditions. However, several factors together have the potential to limit their profits in the short term. First, credit risk is expected to remain high by historical standards. Second, the scope for high trading income attributable, in particular, to stock price increases seems to be limited (cf. chapter 1, p. 8). Third, the sustainability of investment banking revenues observed in 2009 is questionable. Revenues derived from the fixed income business can to some extent be explained by the reduction in the number of market participants during the crisis. Bid-ask spreads have

Table 1: Swiss banking sector: results for 2009 (in CHF billions)

	Big banks		Commercial banks with a domestic focus		Other banks	
	2009	Annual growth	2009	Annual growth	2009	Annual growth
Total income	55.5	401%	12.3	5%	21.3	-6%
of which:						
Interest income	13.3	-10%	8.4	-2%	6.0	-9%
Income from commission and services	30.4	-17%	2.2	-3%	11.3	-14%
Trading income	10.8	-	1.1	120%	2.7	41%
Other income	1.0	-	0.6	60%	1.3	53%
Total expenses	42.2	0%	6.6	2%	14.0	-5%
of which:						
Personnel expenses	32.1	6%	4.2	6%	9.3	-5%
Other expenses	10.2	-15%	2.3	-5%	4.7	-5%
Gross profit	13.4	-	5.7	9%	7.3	-7%
Depreciation and write-downs on investments						
in associated companies and fixed assets	3.5	13%	0.7	-5%	1.0	-6%
Allowances, provisions and losses	4.3	-46%	0.5	-17%	2.0	9%
of which provisions for credit losses	2.2	-39%	0.3	33%	1.1	66%
Profit before extraordinary items and taxes	5.6	-	4.5	14%	4.3	-15%
Other income and expenses						
(including income tax and minority interests)	-1.7	-	-1.1	-33%	-0.7	250%
Net profit	3.9	-	3.4	9%	3.6	-

Sources: FINMA, SNB

Note: *Commercial banks with a domestic focus* refers to cantonal, regional and Raiffeisen banks. *Other banks* includes private banks, foreign-owned banks and branches of foreign banks.

Note: '-' denotes growth rates that cannot be calculated as these positions generated losses in 2008 compared with profits in 2009.

already started to narrow as market activity picks up. Finally, the private banking business, particularly at UBS, suffered notably as a result of both cross-border issues and reputational damage. It is expected that these problems will continue to affect net new money flows at UBS into 2010. More generally, the weakening of bank secrecy laws is likely to put pressure on margins in a segment of activity that has traditionally been a large and stable contributor to the big banks' revenues.

Profits of domestically focused banks are also likely to be limited in 2010 as a result of falling interest margins and increased credit risk. Interest rate risk exposures additionally render domestically focused banks particularly vulnerable to interest rate hikes. The sustainability of profits generated by Swiss private banks remains uncertain due to the possible negative implications of further pressures on client confidentiality.

In the event that the economic recovery comes to a halt in 2010 (adverse scenario), Swiss banks' profitability would be considerably affected. Increased risk premia, falling asset prices and higher credit risk over a longer period could translate into significant losses for the big banks. Credit losses of domestically focused banks would rise substantially.

Box 1. Structure of the Swiss banking sector

The recent financial crisis has shown that governments cannot allow systemically important banks to collapse – because they have become ‘too big to fail’ (TBTF). Switzerland is no exception, as demonstrated by the UBS case. Indeed, the TBTF issue is particularly pronounced in Switzerland, owing to the way in which the Swiss banking sector is structured.

A number of criteria are used in assessing the systemic importance of banks and, hence, the magnitude of the TBTF issue.¹⁵ These are size, interconnectedness and substitutability. However, it is difficult to define suitable indicators, because these three criteria often overlap. Below, size as well as market share in domestic deposit and lending business are considered. In both cases, the indicators for Switzerland are particularly high. First, by international standards, Switzerland has a very large banking sector relative to its GDP, with two huge international banks. Second, both of these banks also dominate the domestic market.

At the end of 2009, Swiss banking sector assets totalled CHF 3,574 billion, or nearly seven times Swiss annual GDP. This is a considerable drop compared to the previous years, when the size of the banking sector represented up to nine times GDP. However, it is still the biggest ratio among the G10 countries. Furthermore, the two Swiss big banks on their own have total assets amounting to over four times Swiss annual GDP. This number, too, is the highest among the G10 countries (cf. table B1).

Thus, despite the reduction in their balance sheets, the big banks are still very large relative to Swiss GDP. Since the balance sheet reduction mainly reflected a retrenchment from foreign assets, the big banks’ share of the domestic market – and hence the key component of their systemic importance – remains just as high as before.

Depending on the segment, the market share of the big banks in domestic lending is between 28% and 34%. For deposit business, market share is 30% (cf. table B2). The big banks are thus hugely important for the functioning of the Swiss economy. In their current setup, both big banks should be categorised as too big to fail on the basis of size and market share in domestic business.

The rest of the Swiss banking sector comprises 24 cantonal banks (29% of total domestic assets), 350 independent bank members of the Raiffeisen group (11%), 70 regional banks (8%) and 228 other banks. The ‘other banks’

category includes private banks, foreign-owned banks as well as branches of foreign banks, and accounts for a 19% share of total domestic assets. The private banks’ main focus is on asset and wealth management, and it is therefore not surprising that they play a minor role in Swiss domestic commercial banking. Depending on the segment, their share of the domestic lending market lies between 0.3% and 1.4%. For deposit business, their market share is 9%.

Apart from the big banks, a few other banks have high market shares in some of the relevant markets and thus fulfil at least some of the TBTF criteria. However, compared to the two big banks, these banks are smaller and less complex, and lack the international dimension.

The figures emphasise the importance of analysing all main bank categories – the big banks (Credit Suisse and UBS), cantonal banks, Raiffeisen banks and regional banks – when assessing financial stability in Switzerland. However, due to their size, international exposure and TBTF status, special attention is given to the two big banks in this report.

Table B1: International comparison

	Size of the banking sector (ratio of total assets to annual GDP)	Size of the largest two banks (ratio of total assets to GDP)
Belgium	5.2	3.1
Canada	2.4	0.8
France	5.6	2.0
Germany	4.6	1.0
Italy	2.2	1.1
Japan	3.0	0.8
Netherlands	4.8	3.2
Sweden	4.4	2.6
Switzerland (2008)	8.2	6.2
Switzerland (2009)	6.7	4.4
United Kingdom	6.3	2.3
United States	1.7	0.3

Sources: FINMA, SNB, Bankscope, IMF

Table B2: Market share in domestic business, by banking category (in percent)

	Big banks	Cantonal banks	Raiffeisen banks	Regional banks	Other banks
Claims against non-financial firms					
of which secured	33.9	21.4	4.9	4.4	35.5
of which unsecured	27.5	47.6	0.8	3.1	21.0
Mortgage claims against households	34.3	33.5	17.6	6.8	7.8
Deposits at Swiss bank offices	30.4	25.7	10.9	6.3	26.6

Sources: FINMA, SNB

15 Cf., for example, IMF, BIS and FSB, *Guidance to assess the systemic importance of financial institutions, markets and instruments: initial considerations – report to the G20 Finance Ministers and Central Bank Governors*, October 2009, www.bis.org/publ/othp07.pdf, or, Commission of experts, *Preliminary report of the ‘too big to fail’ commission of experts*, April 2010, www.sif.admin.ch/dokumentation/00514/00519/00592/index.html

3 Risks

Compared to the levels observed at the onset of the financial crisis, the big banks substantially reduced their exposure to market and credit risk in 2008 and 2009. However, there are first signs that higher risk appetite is returning. For banks with a domestic focus, pronounced growth in mortgage lending led to an increase in credit risk in 2009. At the same time, the interest rate risk of cantonal and Raiffeisen banks reached peak levels.

Big banks

The discussion of the big banks' risk exposure focuses on five major risk categories: credit, market, sovereign, interest rate and liquidity risk.¹⁶

Moderate reduction of credit risk

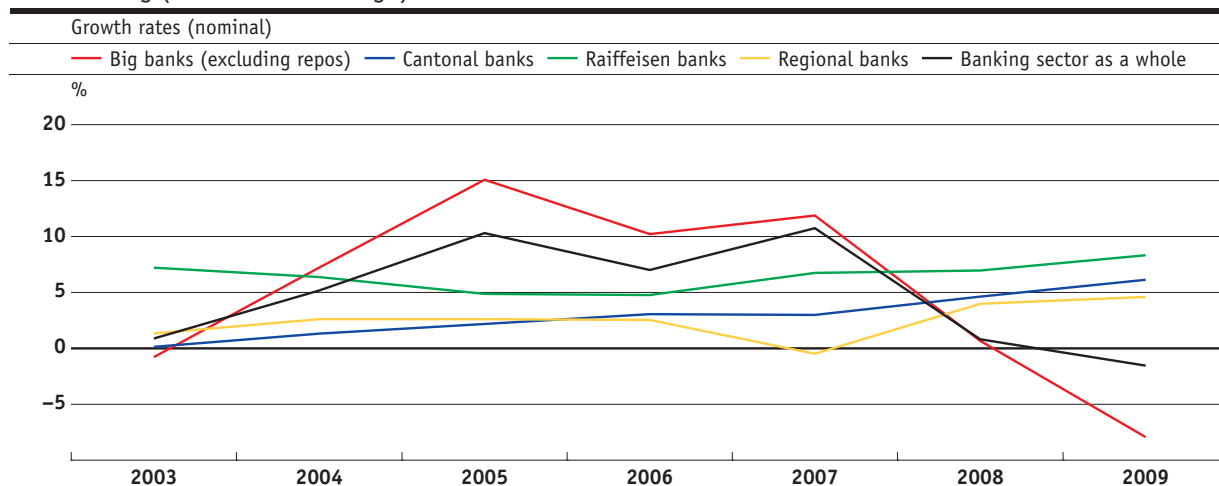
The big banks' exposure to credit risk includes traditional loans, loans held for sale, loan obligations, repurchase agreements (repos) and securities lending and borrowing (SLB) transactions.¹⁷ In 2009 such exposures fell from CHF 1,604 billion to CHF 1,299 billion,¹⁸ of which CHF 819 billion can be attributed to foreign and CHF 480 billion to domestic exposures.¹⁹

The main driver of this development was a decrease in the volume of relatively low-risk repos and SLB positions from CHF 617 billion in 2008 to CHF 389 billion in 2009. This decrease was observable at both big banks but was particularly pronounced at UBS.

The big banks' traditional lending (e.g. commercial or consumer loans) declined by 7.9% from 2008 to 2009 (cf. chart 14). Traditional lending

Total lending (domestic and foreign)

Chart 14



Non-performing loans

Chart 15

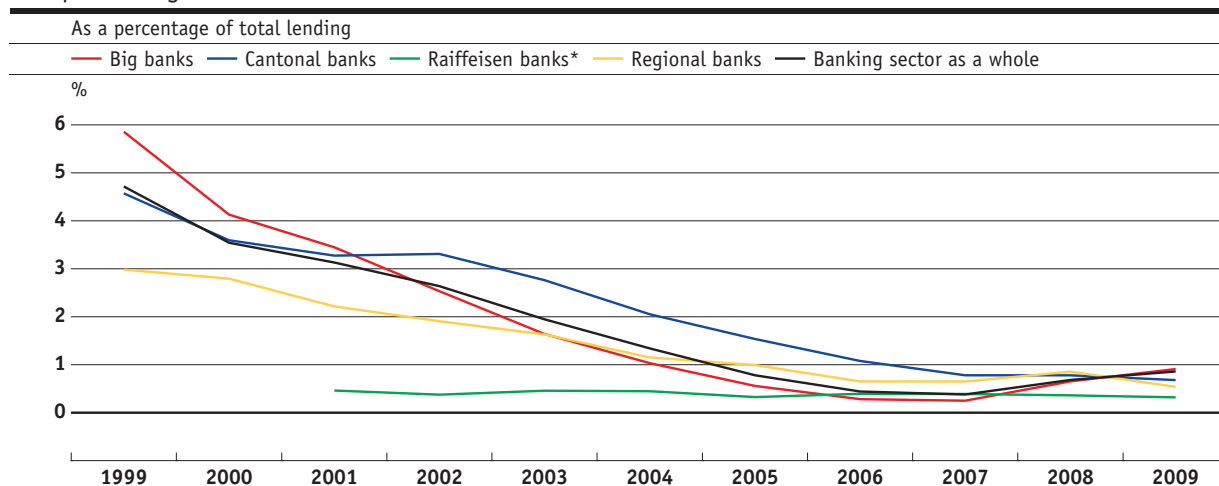


Chart 14: Sources: FINMA, SNB, annual reports 2009

Chart 15: Sources: FINMA, SNB

* Statistics for the Raiffeisen banks are only available from 2001.

16 It is not always easy to clearly delineate these risk categories. In particular, it is increasingly hard – especially in the case of the big banks – to differentiate between credit and market risks according to simple criteria such as product type, market liquidity, accounting method or holding period. For example, credit portfolios can be valued at amortised cost and at fair value. Or positions in banks' trading books can have exposure to credit risk as well as market risk. Fair value is understood to mean the price at which

assets can be exchanged or liabilities settled between professional, independent and willing parties. Write-downs are performed on these positions if the market price (or the model-derived value) changes. For positions accounted for at amortised cost, by contrast, write-downs and provisions for credit risk take place if objective criteria indicate that it will not be possible to recover the entire amount owed as foreseen in the original contract.

17 In principle, credit risk exposures also include credit derivatives (especially CDS). However, in this report, these exposures are discussed in the section on market risk.

18 Source: annual reports 2009.

19 SNB estimates.

amounted to CHF 599 billion in 2009 (2008: CHF 650 billion), of which CHF 299 billion was accounted for by foreign borrowers (2008: CHF 346 billion) and CHF 229 billion by domestic mortgages (2008: CHF 226 billion).²⁰ The reduction in traditional lending was primarily attributable to a CHF 40 billion decrease in UBS's loans to foreign financial institutions and banks. Traditional lending at Credit Suisse remained roughly constant over the last year.²¹

Despite the worldwide recession in industrial countries, backward-looking indicators suggest that the quality of the big banks' loan portfolios remained high. In 2009, the share of non-performing loans in the big banks' total lending volume was relatively low compared to its peak in 1999 (cf. chart 15, p. 19), even though it continued to increase at a moderate pace. New loan loss provisions even declined. At UBS, they decreased from 0.73% of total loans in 2008 to 0.51% in 2009.²² At Credit Suisse, they declined from 0.34% in 2008 to 0.21% in 2009.²³

Various forward-looking indicators of credit quality for the US and Europe signal that credit quality has improved compared to 2008. But these indicators also show that default rates are expected to stay high by historical standards. First, while yield spreads on corporate bonds declined substantially in 2009, they are still close to their previous historical peak of 2002 (cf. chart 8, p. 12). Second, in both the US and Europe, the ratio of the number of firm rating downgrades to upgrades by Moody's declined in the course of 2009. In the US the ratio is now close to its long-term average; however, in Europe it remains above its long-term level. Third, the IMF estimates that about two-thirds of total write-downs and provisions expected for the period 2007–2010 have already been realised by the international banking sector. But banks worldwide are still expected to face further write-downs and loss provisions of about USD 800 billion in 2010.²⁴ For Switzerland, forward-looking indicators point to an increase in default rates.

Measures that combine information about volumes and quality of the credit portfolio, such as risk-weighted assets for credit risk and banks' internal indicators, suggest that credit risk for the big banks decreased in 2009. The amount of the big banks' BIS risk-weighted assets for credit risk²⁵ declined from CHF 402 billion at the end of 2008 to CHF 305 billion at the end of 2009. UBS is the main driver of this development. UBS's risk-weighted

assets for credit risk fell from CHF 222 billion to CHF 140 billion, mainly due to the reduction in loans to foreign financial institutions and banks. At Credit Suisse, risk-weighted assets for credit risk declined from CHF 180 billion to CHF 165 billion, driven by credit exposures of the investment bank. Credit Suisse's internal risk indicator (economic capital) points to a similar decrease in credit risk. The contribution of credit risk (consumer and corporate loans, international lending, emerging markets, real estate and structured assets) to Credit Suisse's economic capital declined by 10.5% compared to 2008.²⁶

In sum, the decline in the big banks' credit exposures together with the relatively sound quality of their credit portfolio suggest that the big banks' credit risk decreased moderately in 2009. In a historical comparison, however, forward-looking indicators signal that credit quality abroad will stay at low levels in 2010. For Switzerland, they point to a deterioration of credit quality in 2010.

Reduction of market risk, but first signs of reversal

Overall, the big banks' total trading portfolios further decreased to CHF 509 billion (–7.3% compared to 2008) in 2009. However, this reduction was not evenly distributed across the two banks. UBS reduced its trading portfolio, mainly by scaling back its debt instruments portfolio, from CHF 312 billion in 2008 to CHF 232 billion in 2009, well below the 2006 peak of CHF 879 billion. Credit Suisse's trading portfolio, by contrast, increased from CHF 237 billion in 2008 to CHF 277 billion in 2009, predominantly driven by equity positions. Nevertheless, the size of Credit Suisse's trading portfolio remains below its 2007 peak of CHF 434 billion.²⁷

Interest rate and credit derivatives positions are not included in the above-mentioned trading assets but are also important sources of market risk. Credit derivatives, in particular, gained a lot of attention during the crisis as the replacement values of these instruments in the big banks' portfolios increased ninefold from 2006 to 2008. In 2009, replacement values²⁸ of the big banks' credit derivatives positions declined substantially, from roughly CHF 400 billion at the end of 2008 to CHF 142 billion at the end of 2009. This decline can be observed at both banks to a similar extent. It is, however, mainly driven by movements in interest rates, credit spreads and exchange rates. Notional volumes remained relatively constant.²⁹

20 Domestic mortgages account for about 38% of the total loan portfolio for both big banks.

21 Sources: annual reports 2009, SNB statistics.

22 Of this figure, 23% (CHF 425 million) is attributable to assets reclassified from the trading to the banking book in 2008 (monoline insurers, student loans, auction rate securities). In 2008 they accounted for 44% (CHF 1,329 million) of all loan loss provisions.

Total loan loss provisions are predominantly driven by corporate loans of the investment bank. Source: UBS, *Annual Report*, 2008 and 2009.

23 This reduction was driven by higher releases and recoveries, as well as by lower net provisions relating to a guarantee provided in a previous year to a third-party bank at the investment bank. This

decrease outweighed an increase in loan loss provisions for loans to corporate and institutional clients at the private bank. Credit Suisse attributes this slight increase to a deteriorating credit environment. Source: Credit Suisse, *Annual Report*. Credit Suisse's remaining exposures to businesses particularly affected in the crisis are discussed in the market risk section (cf. footnote 32).

24 Source: IMF, *Global Financial Stability Report*, April 2010.

25 Measured according to Basel II rules. Source: annual reports.

26 Source: *Annual Report*.

27 Source: annual reports. These numbers do not take into account the volume of derivative instruments.

Indicators quantifying market risk, such as VaR³⁰ or Credit Suisse's internal risk indicator (economic capital), show that in 2009 market risk evolved very differently at the two banks. At UBS the one-day 99% VaR declined by more than 50% from CHF 163 million to CHF 79 million, reflecting both an active risk reduction and the impact of lower market volatility. By contrast, Credit Suisse's one-day 99% VaR increased by 7% to CHF 131 million. According to the bank, the rise is due partly to model enhancements and partly to higher risk appetite in the fourth quarter.³¹ Credit Suisse's economic capital also indicates that market risk grew in 2009, with position risk for fixed income and equity trading up by 10%.³² Internal indicators of both banks suggest that market risk increased during the first quarter of 2010.³³

Taken together, the available indicators suggest that market risk at the big banks declined further in 2009. The reduction, however, is fully attributable to UBS. Credit Suisse's indicators point to an increase in market risk. During the first quarter of 2010, market risk appears to have risen at both banks.

Direct sovereign risk exposures moderate; potential indirect effects substantial

Costly stimulus packages in combination with decreasing tax revenues have led to a substantial increase in the market participants' assessment of the credit risk of sovereign debt (cf. chart 2, p. 9). The focus is currently on southern European countries such as Portugal, Italy, Greece and Spain, as well as on Ireland.

The big banks' financial claims against these countries' governments, measured on an ultimate risk basis, are relatively low.³⁴ At the end of 2009, these direct claims amounted to CHF 0.2 billion against Ireland, CHF 1.1 billion against Greece, CHF 1.4 billion against Portugal, CHF 2.9 billion against Spain and CHF 5.7 billion against Italy. To put these numbers into perspective, the big banks' capital buffer, i.e. eligible capital in excess of required capital, amounts to CHF 49.8 billion.³⁵ The risks from these direct sovereign exposures are hence moderate. However, direct exposures to these countries' governments define the lower bound of sovereign risk. Indirect effects, through credit risk, could be far more substantial as the big banks' total financial claims against these countries amount to CHF 60.3 billion.³⁶ These claims comprise not only the CHF 11.3 billion against governments but also

CHF 25.5 billion against banks, CHF 22.4 billion against the private sector and CHF 1.1 billion that cannot be clearly allocated to one of the three categories.³⁷

Interest rate risk remains low

Overall, the big banks' exposure to interest rate risk remained relatively low in 2009.³⁸ As can be seen from chart 16 on p. 23, the impact of a 200 basis point parallel shift of the interest rate curve on the banks' net present value would be insignificant. Yet these average figures mask the fact that, according to this indicator, each bank's exposure to interest rate risk is moderate in size but of opposite direction. Furthermore, this indicator focuses on the interest rate risk in the banks' traditional lending and deposit taking activities. According to more comprehensive risk indicators, which also take the interest rate risk from trading activities into account, both banks' exposure to interest rate risk appears moderate.

Improvement of funding situation; exposure to liquidity risk limited by new liquidity requirements

Between August 2007 and early 2009, the big banks faced a period of acute stress on the interbank, money and capital markets. A reduced supply of unsecured funding was compounded by deteriorating conditions on the secured funding market. Furthermore, as a result of concerns regarding the banks' health, the stability of wholesale and even retail clients' deposits as a source of funding had decreased compared to normal times.

This situation led to a materialisation of the liquidity and funding risks to which the banks were exposed. The magnitude of this exposure was such that counteracting measures had to be taken both by the banks and by the public sector to help ensure that the big banks could withstand such a prolonged period of acute stress. Measures taken included the build-up of liquidity reserves by the banks and efforts by central banks to prevent the collapse of the money market.

During the second half of 2009, the situation on the interbank, money and capital markets – and hence the funding conditions for banks – improved significantly. Interest rates on unsecured borrowing decreased substantially for both short and long tenors. This allowed the banks to stabilise and even strengthen their funding structure by rolling over their maturing long-term debt on the capital market and increasing the duration of their outstand-

28 Replacement values are the assessment of the value of these derivatives contracts. In most cases they are based on models.

29 Source: annual reports.

30 The VaR (Value-at-Risk) measures maximum losses within a given time span, for a given probability. For instance, a one-day 99% VaR of CHF 100 million signals a 99% probability that trading losses will not exceed CHF 100 million within one day.

31 Source: annual reports, period-end VaR.

32 Credit Suisse also increased its net exposure to (primarily US) residential real estate securities, a market which was particularly hard hit by the crisis. Net exposures grew from CHF 5.1 billion in 2008 to CHF 6.6 billion in 2009. However, exposures to commercial

real estate – another market affected by the crisis – declined from CHF 8.8 billion to CHF 5.6 billion (including CHF 2.6 billion from term financing of executed transactions). The net exposure to leveraged finance business was largely unchanged, at CHF 0.8 billion (2008: CHF 0.9 billion).

33 Source: annual reports.

34 Source: SNB statistics.

35 Source: SNB statistics.

36 The exposure of the entire Swiss banking sector to these countries amounts to CHF 75.9 billion, of which CHF 9.9 billion are claims of foreign banks. Source: SNB statistics.

ing stock of short-term debt. However, a substantial part of the big banks' liquidity and funding needs is still met using potentially unstable short-term unsecured funding sources. This includes wholesale and retail deposits due on demand as well as money market securities, a substantial portion of which have to be rolled over on a weekly basis. For instance, in the case of UBS, 60% of total liabilities – or about CHF 800 billion – are contractually due on demand and over 75% are due within one month.³⁹ Even though short-term liabilities are, to a large extent, being used to fund liquid assets, these numbers highlight the fact that the banks' exposure to liquidity and funding risk is considerable.

In order to keep liquidity risk at an acceptable level, FINMA and the SNB have developed new liquidity requirements for the big banks that are taking effect in June 2010. These quantitative and qualitative requirements are aimed at ensuring that the big banks are able to cover their potential liquidity needs over a 30-day horizon in the event of them facing a widespread loss of confidence during a period of severe market stress.

Outlook

Under the baseline scenario of a gradual economic recovery, financial markets are assumed to remain stable. The main risk for the two big banks in such a scenario is credit risk. Losses can be expected from both their foreign and their domestic loan books; indeed, losses from abroad may be substantial. This is suggested by forward-looking indicators, which signal that default rates will remain high abroad and will increase in Switzerland.

In the event of the adverse scenario – a second recessionary phase – asset prices would fall and credit risk, from both domestic and foreign credit exposure, would increase substantially. In this scenario, the big banks would incur high losses from large areas of their balance sheet. Losses from the lending business would be accompanied by losses from trading positions, such as equity trading and positions sensitive to spread risk including structured finance products.

Banks with a domestic business focus

Credit risk increased

Credit exposures of the domestically focused banks increased in the course of 2009. Total lending,

dominated by mortgage loans, of cantonal, regional and Raiffeisen banks grew by 6.5% last year.⁴⁰ As chart 14 on p. 19 shows, Raiffeisen banks' lending has grown steadily over the past ten years, with lending growth rates consistently highest among the domestically focused banks. Lending growth at cantonal and regional banks gathered pace during the recession to the relatively high levels currently observed. Mortgage lending by domestically focused banks increased by 7.1% in 2009, well above its long-term (ten-year) growth rate of 4.2%, in spite of the recession. This acceleration in mortgage lending growth has been observed for all categories of domestically focused banks.

Despite the moderate recession in Switzerland, backward-looking indicators suggest that the quality of the domestically focused banks' credit portfolios remained good in 2009. The share of non-performing loans in total loans either remained stable or decreased slightly to levels that are low in a historical comparison (cf. chart 15, p. 19).

However, despite having decreased in 2009, spreads on Swiss corporate bonds are still at levels close to the previous historical peak of 2002 (cf. chart 8, p. 12). This implies that market participants expect default rates to increase in Switzerland in 2010.

Moreover, a survey conducted by the SNB during the first quarter of 2010⁴¹ reveals the first signs of declining credit quality in the Swiss mortgage market. According to most banks, internal lending standards remained unchanged at a relatively conservative level between 2005 and 2009. However, banks with a cumulative market share of 27% apply lending standards that stand out because of their lack of conservatism. Furthermore, the volume of new mortgage loans issued that do not meet the banks' internal lending standards has grown over the last four years. In addition, the survey revealed that many banks appear unable to reliably assess the riskiness of their mortgage loan portfolio. For instance, banks with a cumulative market share of about 30% did not provide data on the proportion of new loans for which their internal lending standards are not met. Under the current circumstances, this is a source of concern (cf. box 2, p. 25).

Taken together, these elements suggest that credit risk for domestically focused banks increased significantly in 2009. Indicators of credit risk, such as risk-weighted assets for credit risk, support this assessment. Risk-weighted assets for credit risk rose by 4.8% for cantonal banks, roughly 8% for

37 These figures do not take replacement values of derivatives contracts into account.

38 A direct interest rate risk exists if there is a serious mismatch between the repricing maturities of a bank's assets and liabilities. Banks typically use short-term liabilities to refinance long-term loans. As a result of such maturity transformations, interest rates on assets may be locked in for longer than interest rates on liabilities. If a bank is in this position, a rise in interest rates will reduce the present value of assets more substantially than the present value of liabilities, and the net present value of the bank will fall.

39 Source: UBS, *Annual Report*. Credit Suisse does not publish detailed data on the contractual maturity structure of its funding.

40 Source: SNB statistics.

41 Thirty-one banks, with a total market share of 92% of the domestic mortgage loan market, participated in the survey.

Raiffeisen banks and 2.4% for regional banks compared to 2008 levels.⁴²

Market risk of moderate importance

The trading books of banks with a domestic focus are relatively small on average. At the end of 2009, trading assets at cantonal banks, for example, represented about 3% of total assets. The share of trading assets in total assets is even lower for Raiffeisen and regional banks.⁴³ The corresponding number for the big banks is 18%. However, there is considerable divergence as regards the importance of the trading book for cantonal banks, with the share of trading assets in total assets varying between 0% and 7% depending on the bank.

The level of risk-weighted assets for market risk also suggests that market risk is of moderate importance for these banks. Risk-weighted assets for market risk account for about 2% of total risk-weighted assets for cantonal banks, 1% for Raiffeisen banks and close to 0% for regional banks. By comparison, market risk accounts for 7% of the big banks' total risk-weighted assets.⁴⁴ In 2009, risk-weighted assets for market risk decreased by 32% for cantonal banks, mainly as a result of lower volatility in their trading portfolio. At regional banks, risk-weighted assets declined by 48% due to the reduction in trading assets. By contrast, an increase in trading assets at the Raiffeisen bank group led to their risk-weighted assets for market risk growing by 14% compared to 2008.

Interest rate risk at historically high levels

Interest rate risk in 2009 rose further for cantonal banks, from an already high level, and in-

creased drastically for the Raiffeisen bank group to reach a historical peak (cf. chart 16).⁴⁵ If the general level of interest rates were to rise by 200 basis points, the net present value of cantonal banks and Raiffeisen banks would decline by about 14% of their eligible capital. Interest rate risk at regional banks remained high.

Large liquidity buffers for most banks

The liquidity situation of most domestically focused banks remains good. On average, regional and cantonal banks have maintained liquidity well in excess of the prescribed minimum. At the end of 2009, the ratio of eligible to required liquidity amounted to 180% for regional banks and 260% for cantonal banks.

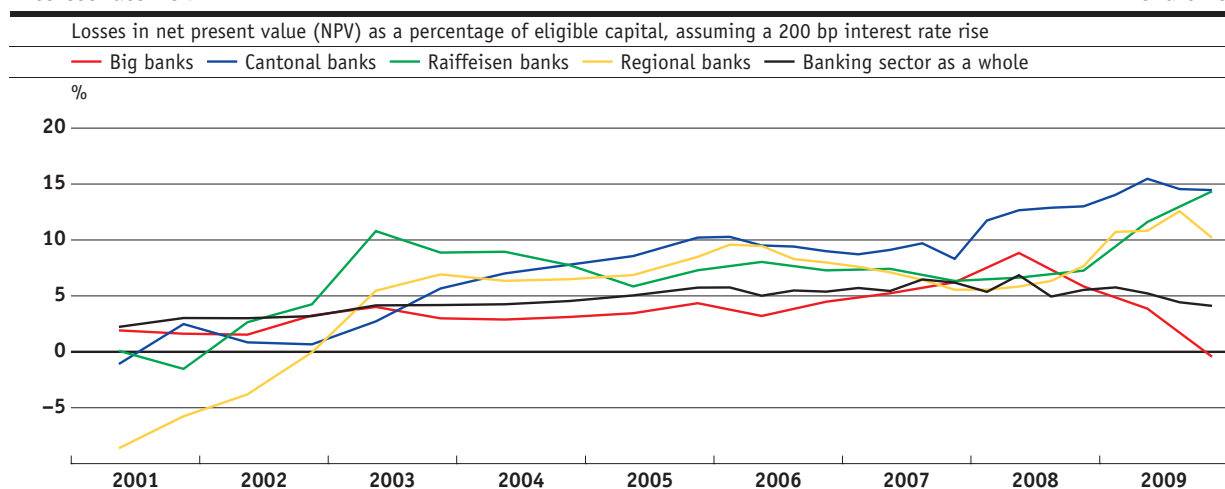
By comparison, the liquidity buffer held at Raiffeisen banks appears low. Their excess liquidity (i.e. eligible minus required liquidity) has been fluctuating around 20% of the prescribed minimum over the last 15 years.

Outlook

Despite the moderate recession in Switzerland, backward-looking indicators, such as the share of non-performing loans in total loans, suggest that the quality of the domestically focused banks' credit portfolios remained good in 2009. However, the strong growth of mortgage lending points to an increase in credit risk at these banks in 2009. In addition, Swiss corporate bond spreads remain close to their previous historical peak in 2002. This suggests that, according to market participants' expectations, default rates should rise in 2010. Under the baseline scenario, the combination

Interest rate risk

Chart 16



Sources: FINMA, SNB

42 Source: SNB statistics.

43 At the Raiffeisen banks, the share of trading assets in total assets amounts to roughly 0.4%; for regional banks, it is 0.1%.

44 Sources: SNB statistics and annual reports.

45 A direct interest rate risk exists if there is a serious mismatch between the repricing maturities of a bank's assets and liabilities. Banks typically use short-term liabilities to refinance long-term loans. As a result of such maturity transformations, interest rates on assets may be locked in for longer than interest rates on liabilities. If a bank is in this position, a rise in interest rates will reduce the present value of assets more substantially than the present value of liabilities, and the net present value of the bank will fall.

of increased lending volume and declining quality is likely to lead to a higher level of loan losses than experienced in 2009, in spite of the economic recovery.

If the economic recovery comes to a halt and a second recession emerges, default rates will rise substantially and a drop in house prices will become likely in some regions or market segments. Material losses from the loan portfolio, especially from mortgages, would be the consequence. Under such an adverse scenario, individual institutions could be severely impaired.

Box 2. Developments in the Swiss mortgage market from a financial stability perspective

Central banks worldwide have been following exceptionally expansionary monetary policies aimed at limiting the impact of the recent financial crisis on economic activities. This includes the Swiss National Bank (SNB), which significantly lowered the target range for the three-month Libor in the autumn of 2008. The unfavourable prospects regarding economic developments also led to a drop in low-risk long-term interest rates. Against this background, mortgage rates in Switzerland have declined to exceptionally low levels.

In 2009, the average variable rate for new mortgages was 2.75%, about 2 percentage points lower than the average rate observed between 1960 and 2008. Despite a sharp economic downturn, domestic mortgage volumes grew by more than 5% in 2009. This raises the question of whether recent developments in the Swiss mortgage market pose a potential threat to the stability of the domestic financial system in the medium term.

First signs of a build-up of risks in the Swiss mortgage market

Despite remaining scattered, evidence based on a comprehensive analysis of the Swiss real estate and mortgage market reveals initial signs of a build-up of risks. First, growth rates for residential real estate prices and for mortgage loan volumes are relatively high. Second, various indicators point to an increase in competition in this market. Third, quantitative and qualitative data collected by the SNB through a survey during the first quarter of 2010 suggest that high risk-taking in this market is not uncommon. Even though most banks reported no relaxation of their internal lending standards between 2005 and 2009, banks with a significant market share have internal lending standards that stand out in terms of their lack of conservatism. Furthermore, in banks' lending practices, 'exceptions to policy' – where loans are extended to borrowers that do not meet the banks' lending standards – occur frequently. The volume of these 'exception to policy' loans has risen over the last five years.

Finally, another source of risk is the still high uncertainty regarding actual risk-taking in this market. For instance, many banks did not provide the SNB with data on their actual lending policies – as opposed to those defined in their internal lending standards. Moreover, due to a lack of relevant data history, many banks do not seem to be able to assess the extent to which their current lending policies are more or less prudent than during the phase preceding the real estate and banking crisis that deeply affected Switzerland in the early 1990s.

Policy implications from a financial stability perspective

Given its relevance from the perspective of financial stability, the uncertainty surrounding the assessment of risk in the Swiss mortgage market remains unacceptably high. In order to reduce this uncertainty, the SNB will – in close cooperation with the Swiss Financial Market Supervisory Authority (FINMA) and the banks themselves – further investigate the extent of the risks that banks are taking in

this market and the appropriateness of their risk management. Should it become evident that risks are excessive and/or that there are material shortcomings in the quality of risk management, it might be necessary to take measures to reduce the risks to financial stability.

Mortgage market of key importance for financial stability

The mortgage market has traditionally played an important role in the stability of the financial system. Over the last few decades, there have been several episodes in which countries, including the US, the UK, Japan and Switzerland, have experienced a real estate crisis coupled with a banking crisis. At the end of the 1980s, both house prices and the volume of mortgage loans rose sharply in Switzerland. In real terms, the growth rate for single-family house prices jumped from around 6% in 1987 to 20% in 1988. After peaking in 1990, prices fell sharply. At the same time, a recession set in. Private households and small companies, in particular, were no longer able to carry their mortgage debt, forcing banks to make substantial write-downs. As a result of the falling real estate prices, the collateral posted no longer covered the mortgage loan, despite the apparently low loan-to-value (LTV) ratios⁴⁶ observed during the build-up phase of the price bubble. Consequently, between 1991 and 1996, banks in Switzerland had to write down 8.5% of their total lending, more than 10% of Switzerland's annual GDP at the time.⁴⁷

The recent financial crisis provides further evidence of the role that the mortgage markets play in financial stability. In this latest episode, the US real estate and mortgage markets were at the root of the problems that escalated into a global financial crisis.

Uncertain outlook for residential real estate market

Despite unfavourable economic conditions, growth rates of both house prices – based on asking price indices – and mortgage loan volumes observed in 2009 were relatively high by historical standards. Against the background of exceptionally low mortgage rates, growth rates of house prices have reached levels not seen since the early build-up phase of the last real estate bubble in Switzerland. There are, however, currently no signs to suggest that, overall, prices exceed levels that are justified based on fundamental factors.

Interest rates at exceptionally low levels

Mortgage rates have reached exceptionally low levels by historical standards. Variable rates fell by more than 70 basis points to 2.7% between October 2008 and December 2009. Five-year fixed rates declined by 120 basis points to 2.6% over the same period. Average rates between 1985 and 1989, the period that saw the build-up of the last real estate bubble, were considerably higher (around 5.5%).⁴⁸

Rising growth rates for mortgage loan volume

In 2009, in spite of the recession, growth in the volume of mortgage loans picked up significantly, reaching

46 Since real estate serves as collateral in the event of default, the degree of risk a mortgage loan carries is determined by the LTV. The higher the LTV ratio for the property concerned, the higher the probability that a bank will have to write down part of the mortgage in the event of default.

47 Source: Swiss Federal Banking Commission, *Annual Report*, 1997.
48 In real terms, mortgage rates in 2009 were at a similar level to the 1985–1989 period.

high levels by historical standards. Chart B1 shows that growth rates for domestic mortgage loans to households have been high, exceeding 5% in both nominal and real terms. In mid-1986, around three years before the onset of the last real estate crisis in Switzerland, growth rates were similar. Shortly thereafter, however, they increased to over 10% in nominal and real terms.

On average, over the last 25 years, domestic mortgage loans have grown at a significantly higher rate than economic activity in Switzerland. The ratio between residential mortgage loans outstanding and annual GDP doubled between 1985 and 2009 (cf. chart B2). This increase can only partially be explained by factors such as developments in the rate of home ownership.

Increasing real estate prices

In line with the increase in mortgage loan volumes, real estate prices rose rapidly in 2009. The annual growth rate of the asking price index for single-family houses is depicted in chart B3 on p. 27. In 2009, asking prices in-

creased sharply at a rate of around 6% (both nominal and real).⁴⁹ While appearing moderate when compared with annual growth rates of over 20% observed in the late 1980s, growth rates of this magnitude have not been seen in Switzerland since the period directly preceding the onset of the last real estate crisis (1986–1987).

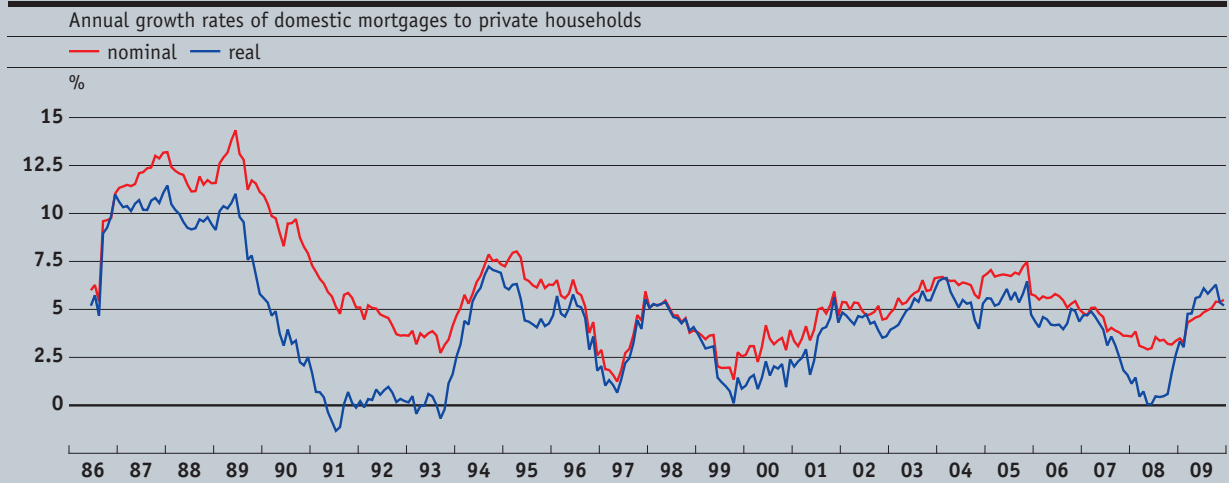
Chart B4 on p. 27 depicts real price developments for asking prices of single-family houses and owner-occupied flats. As can be seen, growth rates in 2009 and early 2010 are particularly high for the latter category, and the first signs of overheating for this market segment have emerged. Taking fundamental factors such as income, construction activity and interest rates into account, single-family houses, by contrast, do not appear overpriced on average. However, for some regions – in particular Geneva – the first signs of overheating are evident for this market segment too.

Outlook is uncertain

As a result of the still fragile economic environment and the expected normalisation of interest rates, a slight

Mortgage growth rates

Chart B1



Ratio of mortgages to GDP

Chart B2

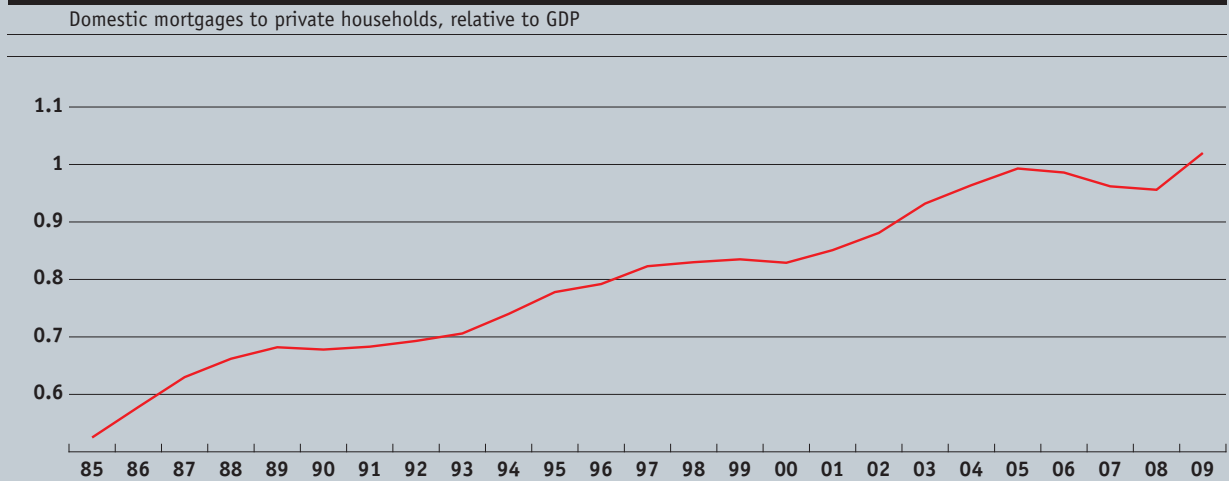


Chart B1: Sources: FINMA, SNB

Chart B2: Sources: FINMA, SNB

49 Between 2005 and the beginning of 2009, transaction prices for single-family houses rose more sharply than asking prices, but receded thereafter.

fall in real estate prices in Switzerland has become more likely. A further economic downturn could even lead to a steeper decline.

However, as a consequence of the long period of increasing house prices and low default rates, both lenders and borrowers might currently be underestimating the risks in the housing market, thereby contributing to the creation of a bubble. Should real estate prices continue to rise at the current pace, or even accelerate, this would, even in the event of a steady economic recovery, already constitute the onset of a bubble.

Survey suggests no relaxation of lending standards, but high uncertainty regarding their application

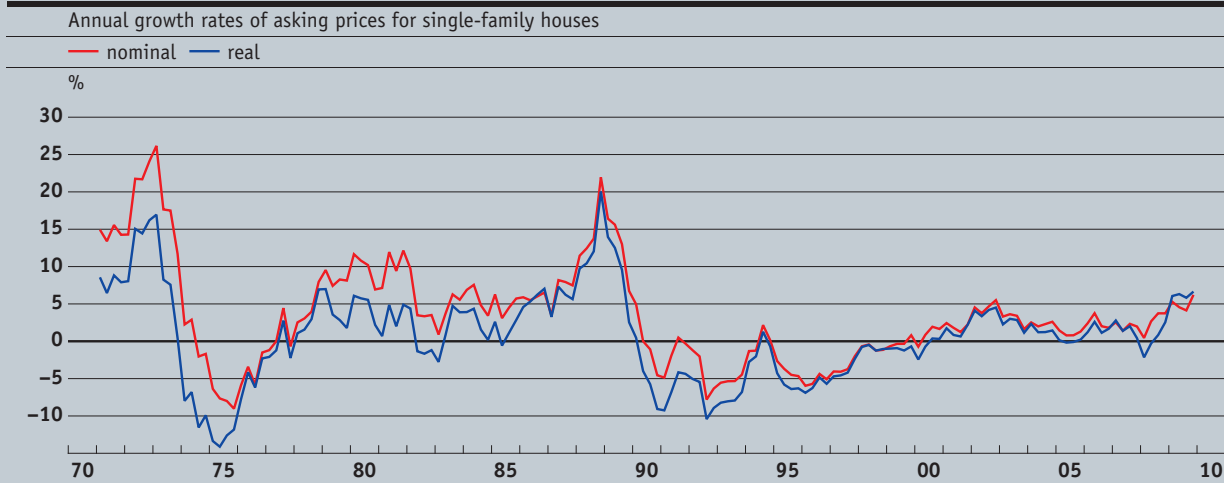
To form a better picture of developments in the domestic mortgage market, the SNB conducted a survey in the first quarter of 2010. The sample covered over 30 banks with a total market share of 92%. The survey included ques-

tions focusing on the banks' internal lending standards, their actual mortgage lending practices and their assessment of the market over the 2005–2009 period. Most of the questions referred to private household mortgages, which make up over three-quarters of all mortgage lending in Switzerland.

The survey confirms the impression conveyed by other indicators that competition in the Swiss mortgage market has intensified recently, leading to a narrowing of interest rate margins. Quantitative and qualitative data collected on lending standards and practices also suggest that most banks' lending standards appear relatively conservative and have not been relaxed over the last five years. However, banks with a significant market share have internal lending standards that stand out in terms of their lack of conservatism. Furthermore, risk-taking may have increased as banks with a significant market share have extended loans that do not meet their internal standards.

Developments in Swiss residential real estate prices: Growth rates

Chart B3



Developments in Swiss residential real estate prices: Levels

Chart B4

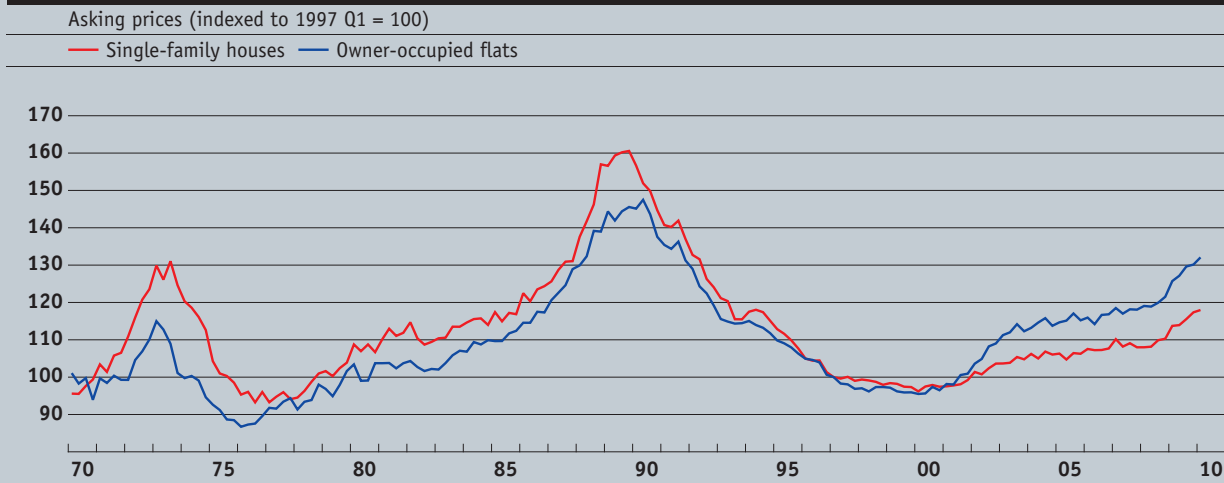


Chart B3: Source: Wüest & Partner

Chart B4: Source: Wüest & Partner

Increasing competitive pressure in the mortgage market

Nearly all banks report that competitive pressure has increased in recent years. The reasons cited include greater transparency, excess liquidity and lower interest rates. Intense competition can motivate banks to narrow interest rate margins and to take on higher interest and credit risk. There is some evidence to suggest the existence of such behaviour in several of the banks surveyed.

Interest rate margins narrowing despite growing interest rate risk

Several indicators point to a reduction in interest rate margins in recent years. According to aggregated SNB statistical data, interest margins at banks with a domestic focus have narrowed by approximately 20 basis points (or 10%) over the past five years. This trend is also confirmed by the survey. Banks with an overall market share exceeding 50% reported a narrowing of interest rate margins between 2005 and 2009, while almost no bank reported a widening of its margins.

The fact that this development has been observed even over the last two years is remarkable. During this period, the interest rate curve became much steeper, while the exposure to interest rate risk at banks with a domestic focus greatly increased (cf. chapter 3, p. 19). This suggests that, by taking on greater interest rate risk, banks attempted to offset eroding interest rate margins. Altogether, this indicates that competition increased further over this period.

Internal lending standards provide a mixed picture regarding banks' conservatism

According to their qualitative answers to the survey, most banks view their internal lending standards as conservative. Quantitative answers support this claim for a majority of banks. Furthermore, they suggest that internal lending standards remained broadly unchanged between 2005 and 2009. However, banks with a significant market share have internal lending standards that stand out in terms of their lack of conservatism.

Chart B5 illustrates the interest rate and maintenance costs assumed by banks in their 2009 internal lending standards to determine the affordability of a mortgage loan for a particular borrower.⁵⁰ It shows that banks with an overall market share of 43% assume an interest rate of at least 5% and maintenance costs of at least 1%. By contrast, banks with a market share of 27% assume an interest rate of less than 5% and maintenance costs of less than 1%. To put the assumptions regarding interest rate into perspective: the rate on mortgage loans was close to 5% on average during the last 50 years.⁵¹ Furthermore, as last observed during the 1990s, interest rate levels at or above 5.5% can prevail for many years. Thus, it is questionable whether the internal lending standards of this second group of banks are conservative enough.

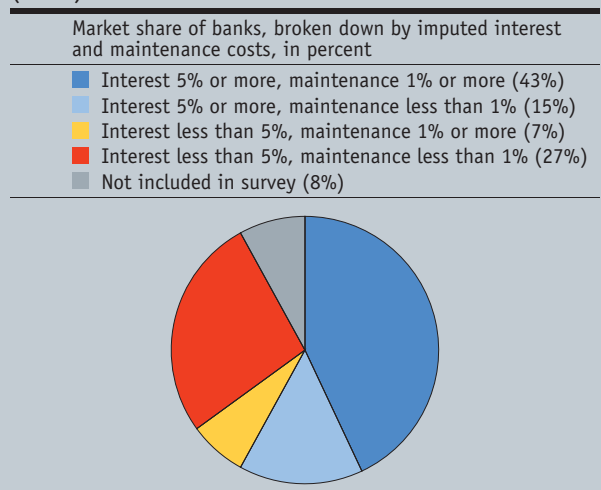
Gap between internal lending standards and actual lending practices

According to the survey, banks regularly grant mortgage loans at conditions that do not meet their internal lending standards. Hence, conservative lending standards are, per se, no guarantee for low risk-taking. For instance, a number of banks with a total market share of almost 25% reported exceptions to policy for more than 20% of new mortgage loans granted in 2009 (cf. chart B6).

Between 2005 and 2009, the number of 'exception to policy' mortgage loans increased, as shown in chart B7 on page 29. For 2009, the surveyed banks reported that the volume of new mortgages that did not meet lending standards amounted to CHF 6 billion. While this figure is still small compared to the average annual volume of new mortgage loans, it must be borne in mind that banks with a combined market share of roughly 30% did not provide any data on this topic in the survey. It is therefore likely that this figure significantly underestimates the actual volume of mortgages for which the banks' own lending standards are not met.

Internal lending standards (2009)

Chart B5



Exceptions to internal lending standards (2009)

Chart B6

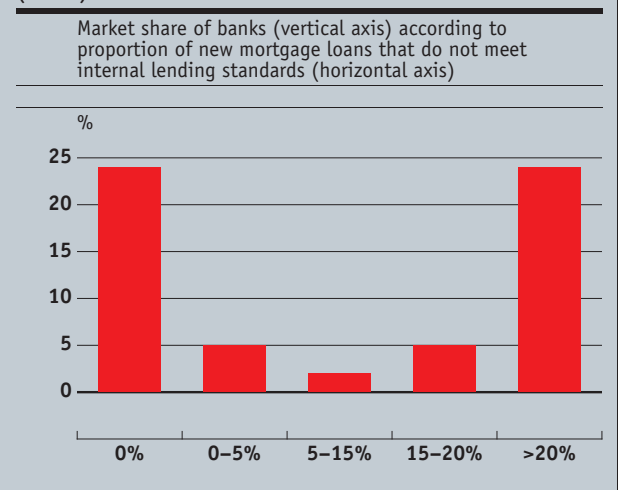


Chart B5: Source: SNB

Chart B6: Source: SNB
Answers from banks with a 61% market share.

⁵⁰ Amortisation costs are another important element of a bank's lending standards. However, due to the lack of comparability of the figures provided by the banks in the context of the survey, amortisation costs could not be included in the quantitative analysis.

⁵¹ Between 1960 and 2009, the average variable rate of new mortgages for residential real estate was 4.9%.

LTV ratios remain stable

The survey does not provide any clear evidence of an increase in LTV ratios in the Swiss mortgage market over the last few years. In some cases, banks reported anecdotal evidence of other banks relaxing their lending practices regarding LTV ratios. Based on aggregate figures, however, it appears that the proportion of mortgage loans with relatively high LTV ratios has changed very little over the last five years.

It is important to keep in mind, however, that average LTV ratios also remained stable during the build-up phase of the last real estate crisis in Switzerland. One reason for this is that rising real estate prices permit the expansion of mortgage volumes without resulting in a change to the reported average LTV ratio. Therefore, the evolution of the LTV ratio should be interpreted with caution, as it does not fully capture changes in risk appetite.

Stress test results suggest that an increase in interest rates might lead to a sharp rise in defaults and write-downs

Despite the sharp economic downturn, default and write-down rates remained low at most banks in 2009. As stress tests carried out by some of the banks participating in the survey illustrate, these rates could, however, experience a steep rise under various scenarios. For instance, banks were asked how their default and write-down rates would change if the interest rate were to increase by 200 basis points. Based on historical experience, such an interest rate rise can occur within a short time.

Some banks reported that, under such a scenario, they would expect their default rates to see a fivefold and their write-down rate a tenfold increase within the space of a year. Other adverse developments, such as a steep decline in real estate prices or a rise in unemployment, would result in a comparable increase in default and write-down rates.

The potential impact that a large but plausible interest rate increase could have on mortgage loan defaults is confirmed by a representative survey⁵² of private households. This survey revealed that 8% (17%) of households would no longer be able to pay their mortgage interest if the interest rate were to increase by 2% (3%).

Uncertainty regarding ability to assess risk

A number of banks provided incomplete information in response to certain questions. Some indicated that their ability to access highly relevant data from a risk assessment perspective was limited. Among the reasons cited for this were changes to IT systems.

More generally, many banks do not seem to be in a position to reliably assess their overall risk situation in relation to the Swiss mortgage market. For instance, many banks describe their current lending practices as more cautious than during the phase preceding the last real estate crisis in Switzerland. However, they often fail to provide the historical data to validate this assertion. Furthermore, the survey suggests that many banks seem to be unfamiliar with how to conduct quantitative stress tests to assess the impact of stress conditions on their mortgage loan portfolio.

Exceptions to internal lending standards Chart B7

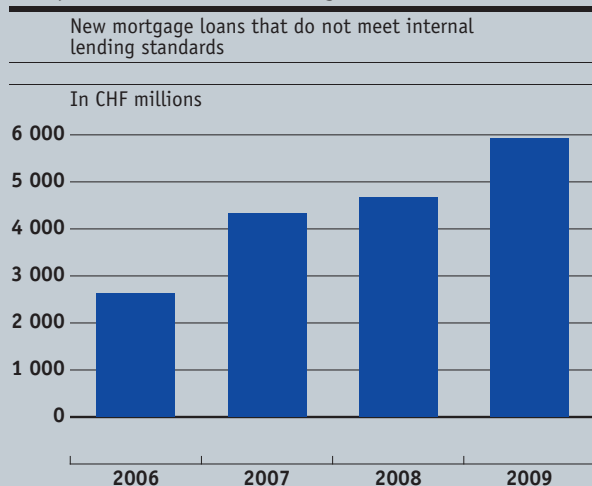


Chart B7: Source: SNB
Answers from banks with a 61% market share.

52 Comparis commissioned the Demoscope market research institute to survey 1,212 private mortgage borrowers.

4 Capital base

In 2009, the capitalisation of the big banks and the banks with a domestic business focus improved significantly. The leverage of the former, however, remains very high, and there is consequently little margin for error in assessing risks. Most of the banks with a domestic business focus have a relatively large capital buffer. This buffer is necessary in view of the increased credit risk and high interest rate risk.

Big banks: improvement in capitalisation

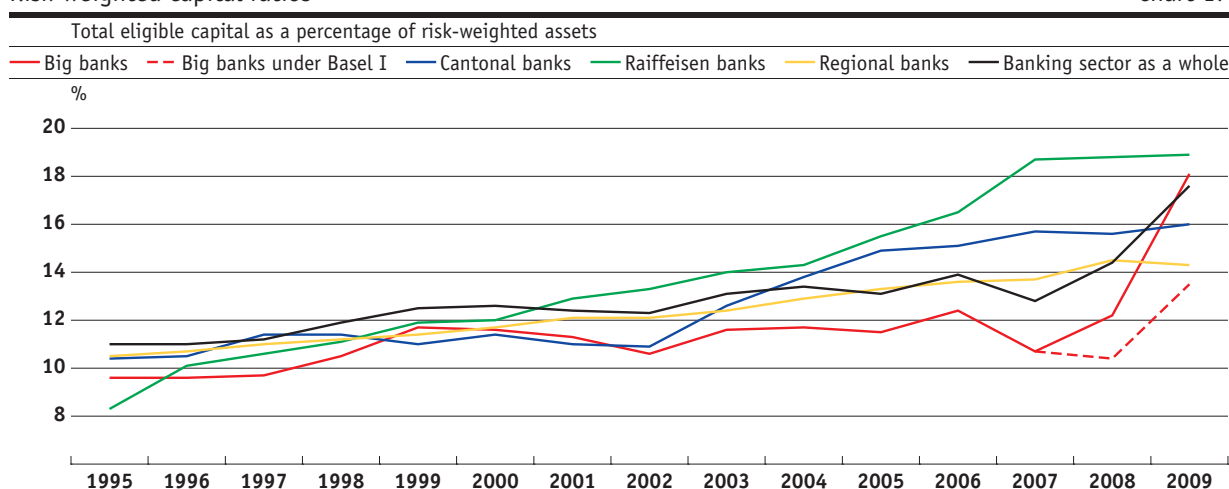
In 2009, the capitalisation of the big banks improved significantly (cf. charts 17 and 18). The risk-weighted capital ratio jumped from 12.2% at

the end of 2008 to 18.1% at the end of 2009, as a result of lower risk-weighted assets, and the capital-to-assets ratio rose from 2.9% to 3.7%, due to smaller balance sheet totals.

At present, minimum regulatory requirements are only in force for the first key indicator (risk-weighted capital ratio). However, starting in 2013, a FINMA leverage ratio of at least 3.0% will also be required.⁵³ In good times, i.e. when banks make profits, FINMA expects at least 5.0%. At the end of 2009, UBS and Credit Suisse recorded a FINMA leverage ratio of 3.9% (end of 2008: 2.5%) and 4.0% (end of 2008: 3.0%) respectively.⁵⁴ Both UBS and Credit Suisse reported strong growth for all key indicators. At first glance, this is an extremely positive picture, but it needs to be put into perspective by the following points.

Risk-weighted capital ratios*

Chart 17



Capital-to-assets ratios

Chart 18

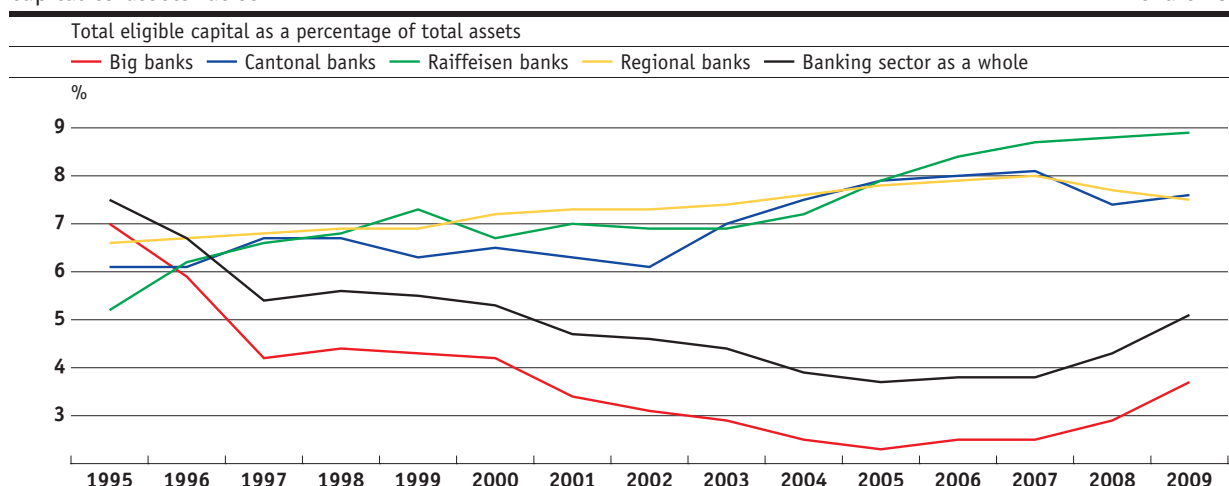


Chart 17: Sources: FINMA, SNB

* Ratios are based on Swiss capital regulations.

Chart 18: Sources: FINMA, SNB

53 The Basel Committee on Banking Supervision also proposes the introduction of a leverage ratio. Specific proposals on the definition of the leverage ratio and on improvements to the quality of regulatory capital (i.e. emphasising the type of capital that is critical for the

survival of a bank in a crisis), as well as on a countercyclical design for capital requirements, will be published in 2010.

Moreover, at the beginning of 2011, stricter capital requirements for market risk will enter into force. The two most important changes are as follows. First, the calculation of required capital will use not only a Value-at-Risk (VaR) based on the current period, but also one based on a stress period (stressed VaR). Second, required capital for credit risk in the trading book is to be given the same treatment as in the banking book.

54 Sources: UBS and Credit Suisse, annual reports 2009.

First, the strong improvement in capitalisation is qualified somewhat when Basel I key indicators are used as a basis for comparison. Under Basel II, the big banks were able to increase their risk-weighted capital ratio by 50% to 18.1%. Under the Basel I framework, this increase would have been less steep; the big banks would have been able to increase their capital ratio by 30% to 13.5%. The new regulations make the capitalisation of the big banks appear substantially sounder than the old regulations.

Second, the leverage of the big banks is still very high. In terms of the ratio of debt to total regulatory capital, it comes to an average of 26. Looking at tier 1 capital alone, leverage increases to an average of 34, representing a 2.9% ratio of tier 1 capital to total assets, which is below average in an international comparison (cf. chart 19). Leverage would be even higher if hybrid tier 1 components as well as deferred tax assets were to be excluded from tier 1 capital. That is to say, if only the capital components that are critical for the survival of a bank in a crisis, and which are used by the market to assess a bank's soundness in times of stress, were to be considered.

Hence, the margin for error that the big banks can afford remains narrow, and the consequences of any misjudgement of the risks correspondingly severe. Scenario analyses and the estimation of loss rates and probabilities of default, upon which the calculation of required capital is based, are by nature associated with considerable uncertainty. The narrow margin for error weighs that much more heavily given that raising large volumes of capital at short notice, as, for instance, UBS did at the

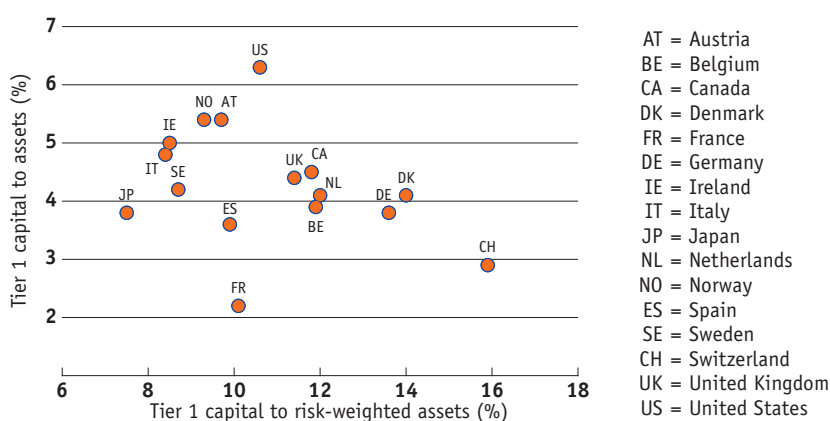
onset of the latest crisis, could prove difficult in the current environment.

Given, first, the continued high level of leverage, second, the fact that there is considerable uncertainty when it comes to assessing risks and, third, that the 'too big to fail' issue has yet to be resolved (cf. box 1, p.18), a further improvement in the capitalisation of the big banks is necessary. The introduction of the FINMA leverage ratio and the increase in risk-weighted capital requirements (introduced at the end of 2008, with a transition period until the beginning of 2013) were a response to the shortcomings in capital regulations revealed by the crisis. These were, primarily, an insufficiently conservative backing of risk with capital (particularly in the trading book), and the lack of both a limit to leverage and a countercyclical component in capital requirements. However, these measures are not aimed at addressing the 'too big to fail' issue. That will require the design and implementation of further measures, including progressive capital requirements (cf. the interim report by the commission of experts, April 2010).

Banks with a domestic business focus: large capital buffer appropriate in view of risks

The capitalisation of banks with a domestic business focus was almost unchanged in comparison to 2008 (cf. chart 17). At the end of 2009, cantonal banks recorded a risk-weighted capital ratio of 16.0% (end of 2008: 15.6%), regional banks 14.3% (end of 2008: 14.5%) and Raiffeisen banks 18.9% (end of 2008: 18.8%). For these banks, eligible and required capital developed along very similar lines, with both declining slightly in the

Capital ratios of major international banks* Chart 19



Sources: 2008 and 2009 annual reports

* Average ratios of largest banks in each country. Ratios are based on BIS tier 1 capital and on BIS risk-weighted assets.

case of regional banks and increasing for cantonal and Raiffeisen banks.

Capital-to-assets ratios also remained stable at a relatively high level (cf. chart 18, p. 30), as shown by the following figures, which were recorded at the end of 2009: 7.6% for cantonal banks (end of 2008: 7.4%), 8.9% for Raiffeisen banks (end of 2008: 8.8%) and 7.5% for regional banks (end of 2008: 7.7%). Thus, for banks with a domestic business focus, leverage is low, both in comparison to the big banks and in historical terms.

A slight shadow is cast on this positive picture by the following considerations. Cantonal banks, where the canton is liable for all non-subordinated liabilities, profit from a reduction in required capital until the end of 2011. Similarly, until the end of 2011, Raiffeisen banks – which are organised as a cooperative – can count part of the additional funding obligation required of all the members in the cooperative as tier 2 capital. In terms of tier 1 capital alone, which excludes the additional funding obligations of members in the cooperative, Raiffeisen capitalisation appears much less favourable. The ratio of tier 1 capital to total assets amounts to 6% (instead of 8.9% based on total eligible capital), although this is still well above the 3.8% average for the Swiss banking sector as a whole. In addition, the ratio of tier 1 capital to risk-weighted assets is below the average of 13.1%, coming to 12.7% for Raiffeisen banks (instead of 18.9% based on total eligible capital). If the cantonal banks' discount for required capital is excluded, their risk-weighted capital ratio falls from 16.0% to 14.4% (average for the Swiss banking sector: 17.3%). Hence, to retain their high capital ratios in the future, Raiffeisen and cantonal banks will have to make up for the termination of these concessions with retained profits (cf. chapter 3, p.19).

On average, for banks with a domestic focus excess capital makes up almost 5.0% of the balance sheet total, and less than a fifth of the banks recorded a figure under 3.0%. Such high levels of excess capital are necessary in view of the increased credit risk and the historically high level of interest rate risk to which cantonal and Raiffeisen banks are exposed.

Glossary

Eligible or regulatory capital: tier 1 (including paid-in equity, reserves, retained earnings – including deferred tax assets – and hybrid tier 1 capital; goodwill and intangibles are deducted), tier 2 (including other hybrid instruments, undisclosed reserves as well as subordinated loans and bonds granted to the bank), and tier 3 capital (unsecured, subordinated and fully paid-up liabilities subject to a lock-up clause which prevents the payment of interest and repayment of the principal if this violates the capital adequacy requirements).

Risk-weighted capital ratio: eligible capital as a percentage of risk-weighted assets.

Risk-weighted tier 1 ratio: tier 1 capital as a percentage of risk-weighted assets.

Capital-to-assets ratio: eligible capital as a percentage of balance sheet total.

FINMA leverage ratio: tier 1 capital as a percentage of adjusted balance sheet total (where domestic lending business, in particular, has been deducted).

Leverage: ratio of debt to eligible capital.

5 Market assessment

The market's assessment of UBS and Credit Suisse has improved compared to 2008. CDS premia have decreased and share prices have increased. However, market participants continue to be critical in their assessment of the banks' soundness. CDS premia are still at very high levels and the two banks' share prices remain low. This is particularly the case for UBS, which has been underperforming compared to banks worldwide.

Banks with a domestic focus have been much less affected by the financial crisis. Market participants appear to be relatively confident about these banks' future prospects, in spite of the recent recession in Switzerland.

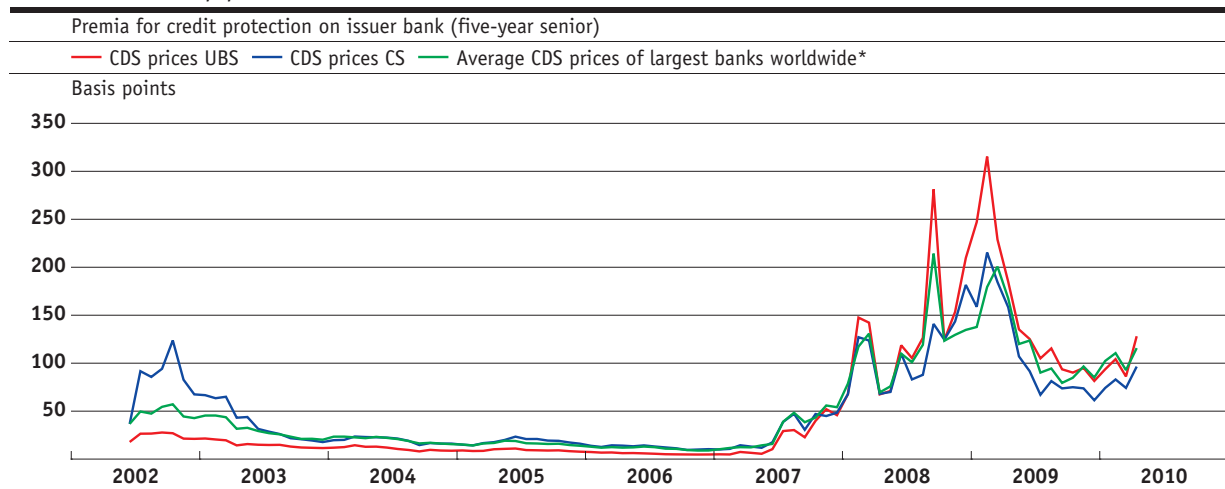
Big banks' CDS premia remain high

Spreads between bank bond yields and Swiss Confederation bond yields as well as credit default swap (CDS) premia reflect the market's assessment of the creditworthiness of banks. The higher the credit risk for the lender, the higher the bond yield spread and the higher the CDS premium.

Chart 20 illustrates the development of CDS premia for UBS and Credit Suisse. The CDS premia of the two big banks roughly follow the pattern of average CDS premia for banks worldwide, which reached historical peaks in early 2009 before decreasing significantly. In May 2010, CDS premia rose again to levels comparable to those reached in March 2008, when Bear Stearns collapsed. Hence, current CDS premia indicate that market participants are still concerned about the big banks' creditworthiness.

Credit default swap premia

Chart 20



Bond spreads

Chart 21

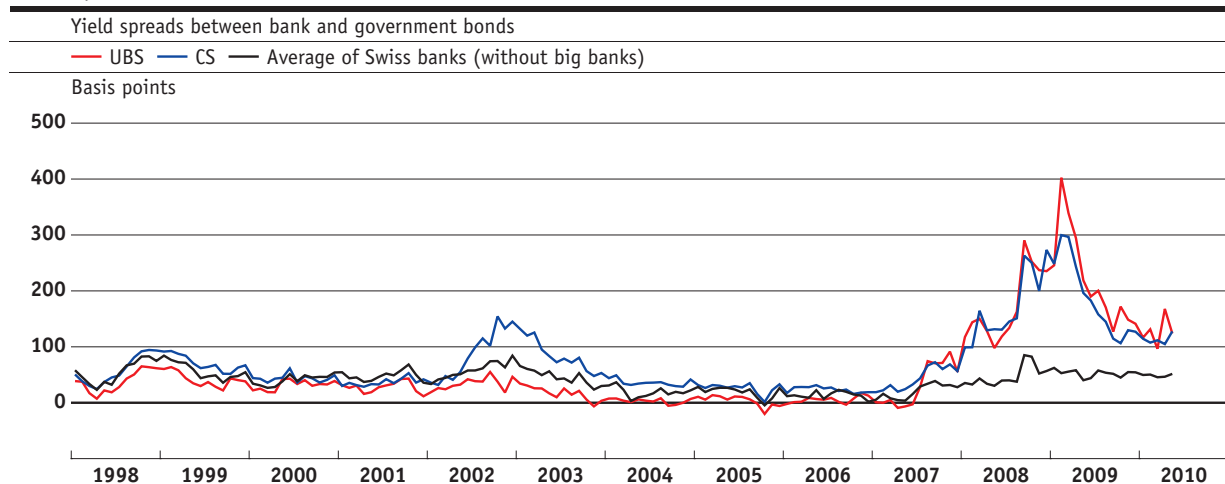


Chart 20: Source: Bloomberg

*Sample of major banks in North America, Japan and Europe.

Chart 21: Sources: SNB, Thomson Datastream

The level of concern remains higher for UBS than for Credit Suisse even though, based on CDS premia, the difference has narrowed substantially in the recent past. Since 2008, Credit Suisse's CDS premium has mostly been below the sample average, while UBS's has been above it. At peak levels in October 2008, UBS's CDS premium was more than 150 basis points higher than Credit Suisse's. This difference had narrowed to around 20 basis points by May 2010.

Bond yield spreads illustrated in chart 21 on p. 33 indicate that financial markets do not seem to be concerned about the ability of banks with a domestic focus⁵⁵ to withstand the consequences of the financial crisis and of the associated recession in Switzerland. The spread increased from an unusually low level of around 5 basis points in January 2007 to around 50 basis points at the end of 2008 (with a peak of 85 basis points in September 2008). It has remained at roughly that level since then. While higher than in the years prior to the crisis, this level is not unusual by historical standards. It is in line with the average yield spread observed between 1999 and 2003.

Muted recovery of share prices

Share prices are indicators of banks' expected future profits. As can be seen from chart 22, bank share prices started to recover after a severe drop between May 2007 and March 2009. Credit Suisse's rally from March 2009 onwards was significantly stronger than the recovery of the average US and European bank as measured by the respective MSCI indices. By March 2010, the bank's share price had returned to a level comparable to its 1998–2004

average. This corresponds to a doubling of the share price compared to the trough of March 2009. However, since April 2010 the bank's share price has decreased again. UBS's performance was distinctly below average. From May 2009, the share price was approximately 80% below its peak level of May 2007. This is less than half of the bank's average share price between 1998 and 2004.

During the crisis, Swiss banks with a domestic focus⁵⁶ lost roughly 10% of their May 2007 value. By August 2009, however, their share prices had bounced back to the levels registered in May 2007 and continued to rise. Although domestically focused banks are likely to face a challenging market environment in 2010 and 2011 due to increased credit and interest rate risks (cf. chapter 3, p. 19), capital markets appear to be confident about these banks' future prospects.

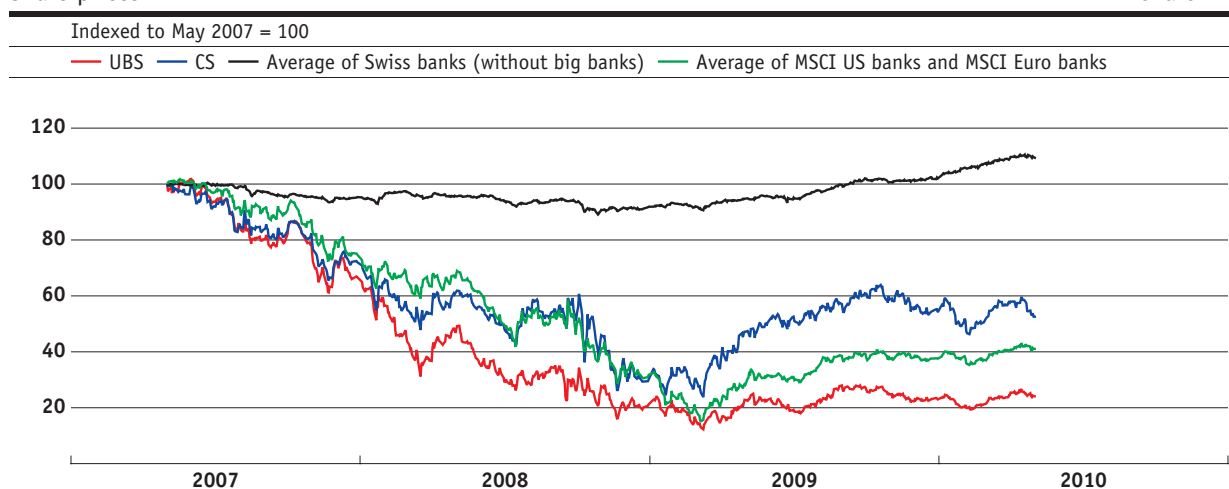
UBS's financial strength rating remains low

Rating agencies provide another source of information on the market's assessment of the soundness of the Swiss banking sector. Although only a few institutions in the Swiss banking sector are rated by Moody's, Standard & Poor's and/or Fitch, they account for more than 80% of total assets in the sector.

In 2009, the long-term rating of Credit Suisse remained stable. The bank was rated Aa1 by Moody's, A+ by S&P and AA- by Fitch. UBS, by contrast, was downgraded by Moody's from Aa2 to Aa3. Fitch and S&P retained their A+ rating for UBS. These long-term credit ratings still represent strong investment grade ratings. However, UBS's current ratings stand at one notch (Moody's) and

Share prices

Chart 22



Source: Bloomberg

55 The dataset covers 75% of the total assets of all banks with a domestic focus.

56 The dataset includes all banks with a domestic focus listed on the Swiss stock exchange (SIX). This amounts to 39% of the total assets of this group of banks (mainly composed of cantonal banks).

three notches (S&P, Fitch) below the bank's 2006 ratings.

A different picture emerges from 'bank financial strength ratings' or 'bank individual ratings' (collectively: FS ratings) issued by Moody's and Fitch, respectively. From a financial stability perspective, these ratings are of particular interest in that they focus exclusively on the intrinsic financial strength of institutions. No support by a third party, e.g. by owners or official institutions, is therefore taken into consideration.

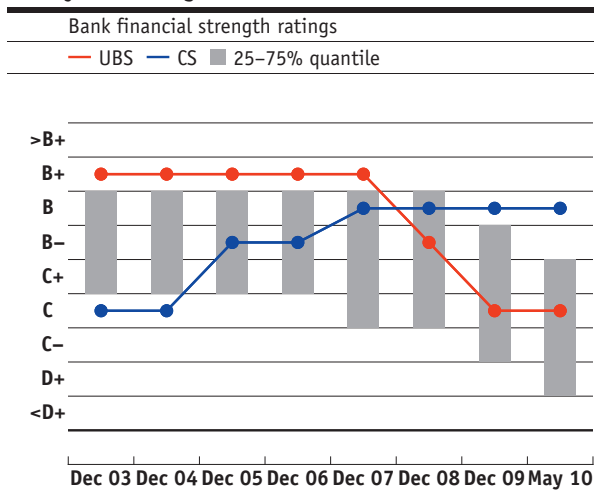
According to the FS ratings, Credit Suisse is perceived as a bank with 'strong intrinsic financial strength' (B rating) by Moody's and as an 'adequate' to 'strong' bank by Fitch (B/C rating). UBS is judged to have 'weaknesses of internal and/or external origin' by Fitch (D rating). Moody's downgraded it from

B- to C, to a bank with 'adequate intrinsic financial strength', in November 2009.

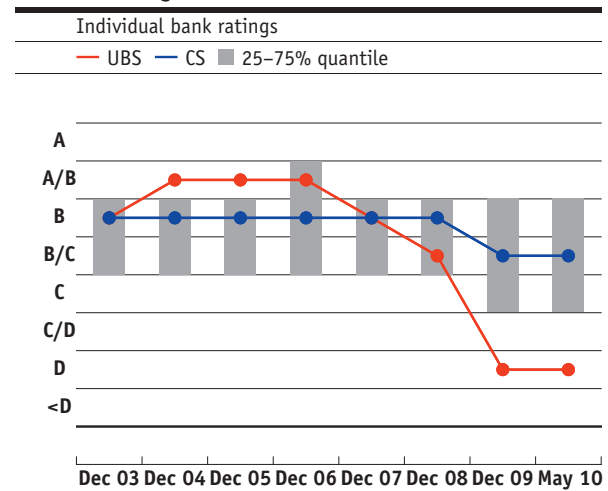
Charts 23 and 24 illustrate the evolution of the bank financial strength ratings and individual bank ratings, respectively. The distribution of the ratings has hardly changed compared to December 2008. Only the distribution of Moody's FS ratings has deteriorated slightly. In the sample considered, UBS's rating is distinctly below the median Fitch rating and on a par with Moody's median rating. Before the crisis, UBS was ranked among the top 25% banks or better by both Fitch and Moody's.

Credit Suisse's Fitch rating corresponds to the median bank's rating in the sample considered. The bank's relative position in the Fitch ratings distribution has remained roughly constant over the past few years. Moody's, by contrast, places it among

Moody's FS ratings* Chart 23



Fitch FS ratings* Chart 24



Stress index* Chart 25

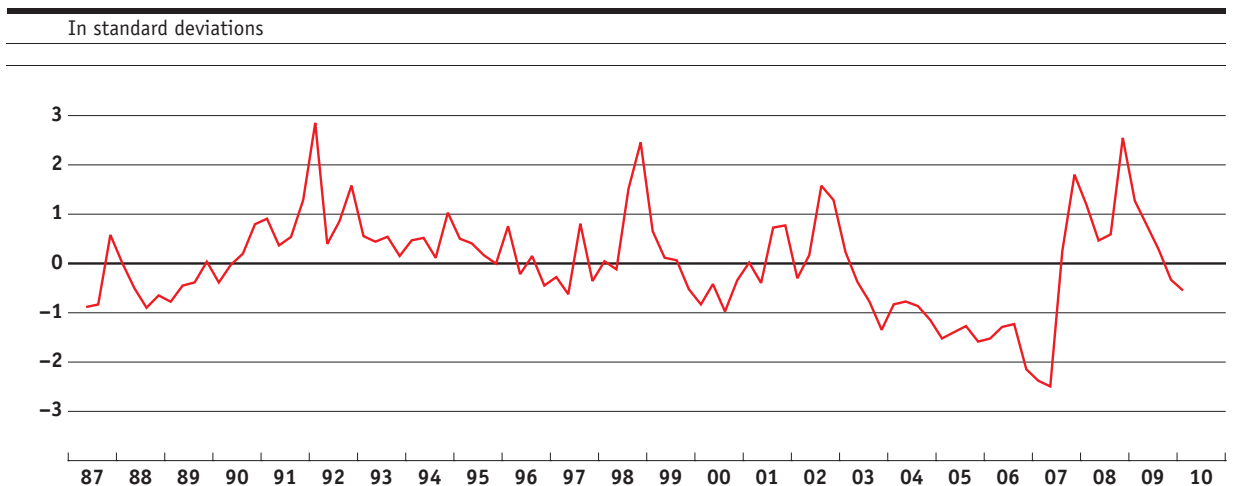


Chart 23: Source: Moody's

Chart 24: Source: FitchRating

* Sample of major banks in North America, Japan and Europe. If a bank holding company is not assigned a financial strength rating, the rating of its largest affiliate is taken instead.

Chart 25: Sources: FINMA, SNB, Thomson Datastream

* The higher the level of the index, the higher the level of stress in the Swiss banking sector. The index is expressed in terms of standard

deviations from its 1987–2009 average. A value above (below) zero indicates that the stress is above (below) its historical average. The stress index for the first quarter of 2010 has been computed with provisional data. Components of the stress index: banks' share price, banks' bond yield spreads, interbank borrowing, banks' profitability, banks' capital, banks' provisioning rate, banks on the regulator's watchlist and number of bank branches. For a description of the underlying variables and the methodology, cf. box 4 on p. 42 of the SNB's *Financial Stability Report 2009*.

the top 10% of the sample, which is a considerable improvement compared to Credit Suisse's relative position in 2006 and earlier. The ratings of Swiss banks with a domestic focus remained stable at high levels.

**Reduced level of stress
in the Swiss banking sector**

In 2009 the stress index,⁵⁷ an indicator of the current degree of instability in the Swiss banking sector, dropped from its ten-year high during the fourth quarter of 2008 to below its long-run average (cf. chart 25, p. 35).

The speed and magnitude of the decrease, which were larger than expected, reflect two elements. First, the situation of banks with a domestic focus remained sound in 2009. In particular, their profitability, already at historically high levels, improved further (cf. chapter 2, p. 14). Furthermore, provisions once again decreased in 2009 (cf. chapter 3, p. 19). Second, improvements at the two big banks as regards profitability, share prices and bond spreads have been substantial.

57 For more details about the computation of the stress index, cf. SNB, *Financial Stability Report 2009*, box 4, pp. 42–43.

