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2011 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 in which the various components fulfil their functions and are able to withstand the shocks to which they are 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

General economic and financial conditions for the Swiss banking sector as a whole continued to improve in 2010. The global recovery became more sustainable, and the Swiss economy also saw robust growth. Against this background, the profitability and capital situation of the big banks improved further, and remained good overall for banks with a domestic focus.

However, the prevailing uncertainties and risks in the economic environment remain high, and a renewed, sharp deterioration over the next twelve months cannot be ruled out. Under such an adverse scenario, big bank losses relative to capital could be considerable, given their risk profile. Both big banks have made major strides towards expanding their loss-absorbing capital base. In view of the ongoing high risks associated with the economic environment, as well as these banks' continuing high leverage and the enhanced regulatory requirements, it is particularly important from a financial stability perspective that the Swiss big banks continue to strengthen their loss-absorbing capital base.

For domestically focused banks, the risks are largely of a medium-term nature, and are related to potential adverse developments on the Swiss real estate and mortgage markets. In view of this, steps have been taken to improve risk monitoring and tighten microprudential supervision. Furthermore, an initiative to revise the self-regulation guidelines for mortgage-backed loans is underway. Should the developments currently being observed on the real estate and mortgage markets continue at the current pace, or even accelerate, further policy measures would have to be considered.

Improvement in economic conditions

Global economic growth in 2010 surpassed expectations. In addition, the global recovery is now on a firmer footing and is less reliant on fiscal stimuli. There is, however, considerable regional disparity. Strong growth in the emerging markets and positive developments in Germany and Switzerland contrasted with economic weakness in several other European countries.

In 2010, real estate prices stabilised in many of the countries that had experienced a housing crisis in 2008/2009. However, risks remain elevated for a number of real estate markets, as price levels appear to be higher than justified by fundamentals. This also applies to Switzerland over the medium term, if real estate prices continue to rise at the same pace as in recent years. In some Swiss regions, and in the owner-occupied apartment and apartment building segments, signs of overheating are increasingly apparent (cf. box 2).

Mirroring the positive developments in global economic growth and real estate prices, overall credit quality improved slightly, as shown by indicators such as write-down rates on lending or risk premia on corporate bonds. However, credit quality remains historically low in the US and Europe. By contrast, indicators show a relatively high level of credit quality for Switzerland, despite the recession in 2009.

Yet the economic environment continues to be one of high uncertainty and risks, as is highlighted by the situation on the financial and capital markets. Risk premia on sovereign debt over the past year increased considerably in some cases. This reflects the heightened problem of sovereign indebtedness – and thus the greater risk of debt restructuring – in a number of states, mainly in Europe. There are also still significant risks associated with the international banking system. For example, despite a sharp decline in 2009, risk premia on bank debt are still high in a historical comparison. Finally, developments on the stock markets in the emerging market economies suggest a risk of new imbalances. If the low interest rate environment persists, there is a risk that, in the medium term, the advanced economies will also see a rise in share prices that is not justified by fundamentals.

Owing to the prevailing uncertainties and risks in the economic environment – especially at international level – a renewed, sharp deterioration in economic conditions over the next twelve months cannot be ruled out. Under a realistic adverse scenario, global economic growth will slow markedly, leading to substantial price corrections on financial markets. A possible trigger for this scenario could be lower-than-expected economic growth in some European countries, which will result in a further deterioration of government finances, rising stress in the banking sector and corrections on the real estate markets. Such a development would also affect the

economic recovery and financial markets in other countries. Share and real estate prices would fall and credit risk would rebound.

Profitability and regulatory capital situation have improved at big banks, but substantial challenges remain

The improvement in the situation for the Swiss banking sector compared to the previous year was largely attributable to the two big banks. In 2010, these institutions reported combined net profits of around CHF 13 billion, as opposed to roughly CHF 4 billion in 2009. This positive development was driven by UBS, whose situation improved further over the course of last year. At the same time, both big banks continued to strengthen their capital base. Since 2007, there has been a marked increase in the two big banks' risk-weighted capital ratios – which were already very high by international standards – and an appreciable decline in their leverage. The SNB welcomes these developments.

However, two aspects should be borne in mind when assessing the big banks' situation:

First, compared to last year, there has been no notable decrease in the level of risk at the big banks. Owing to virtually unchanged credit volumes and continuing overall low credit quality in the US and Europe, credit risk has fallen only slightly. Meanwhile, market risk has risen. The growth in market risk was mainly attributable to UBS, which actively increased the risk positions in its trading book.[1] As a result, under the adverse scenario, the big banks' potential losses relative to capital could be substantial. Under this scenario, the losses from big banks' direct exposures to heavily indebted peripheral euro area countries should be moderate. However, as mentioned, a deterioration of the situation in these countries could potentially trigger the adverse scenario, and hence lead to substantial losses brought on by the generalised worsening of economic conditions.

Second, the big banks' economic capital situation is less comfortable than their risk-weighted capital ratios under Basel II might suggest.[2] A considerable portion of both institutions' Tier 1 capital is made up of capital components that proved not to be loss-absorbing during the recent crisis, and thus cannot be counted towards the category with the highest capital quality (Common Equity Tier 1, CET1) under the forthcoming, enhanced capital requirements (Basel III). Against this background, the big banks will have to expand their loss-absorbing base further over the next few years. By retaining earnings (UBS) and issuing contingent convertible bonds (Credit Suisse), both big banks have already taken important first steps in this regard.[3] These steps suggest that the big banks should be able to expand their loss-absorbing capital base relatively quickly and comply with the Basel III minimum standards by the end of the transition period in 2019.

In view of the big banks' continuing high leverage and the considerable risks that prevail in the economic environment, it is crucial that a sufficient base of loss-absorbing capital be laid down as soon as possible. The level of loss-absorbing capital at the big banks amounted to less than 2% of total assets at the end of 2010. The consequences of any misassessment of risks would be correspondingly severe. By way of comparison: during the recent crisis, UBS suffered cumulative losses amounting to well over 2% of total assets.

Profitability and capital unchanged at domestically focused banks; medium-term risks from potential imbalances in real estate and mortgage markets

For domestically focused banks, profits and capitalisation were virtually unchanged compared to 2009. Their balance sheets still show no signs of having been affected by the short but sharp recession in Switzerland in 2009. This is reflected in the level of write-downs and provisions on domestic lending, which remain at historically low levels. On aggregate, these banks' profitability was virtually unchanged at a historically high level. Likewise, the capitalisation of domestically focused banks hardly changed in 2010 and remains good in relation to both risk-weighted assets and total assets.

As with the big banks, two aspects should be borne in mind when assessing the domestically focused banks' situation:

First, these banks' risk exposure increased in 2010. Credit risk rose further, and interest rate risk remained high. The elevated level of interest rate risk was driven by cantonal and Raiffeisen banks. In the case of credit risk, backward-looking indicators such as write-down and provisioning rates on loans suggest a decline from an already low level. Yet, developments in the real estate and mortgage markets could represent a considerable credit risk and pose a potential threat to financial stability in the medium term (cf. box 2). This threat is heightened by the fact that a combination of high interest rate risk exposure and high mortgage lending growth has been reported by a growing number of banks over the past five

1 UBS, *Annual Report*, 2010, p. 181.

2 At its annual media conference on 22 March 2011, FINMA also stressed that, despite both big banks' high risk-weighted capital ratio, there was a need for action with regard to the capital situation (Branson, Mark, 'The case for more and higher quality capital', FINMA annual media conference, 22 March 2011).

3 These measures were taken in the light of the forthcoming, enhanced capital regulations. Cf., for example, the UBS media release of 8 February 2011: "We will continue to retain earnings to meet capital requirements and will not pay a dividend for 2010."

years. Furthermore, there is considerable uncertainty as to domestically focused banks' risk exposure. On the one hand, there has so far been a lack of information on banks' key risk indicators such as loan-to-value ratios and affordability criteria in the granting of mortgage loans. On the other, even the assessment of real estate price developments is fraught with great uncertainty. Growth rates vary widely, depending on the data source.

Second, the high level of capitalisation should be put into perspective as the regulatory capital requirements for domestically focused banks do not necessarily capture risk fully. For instance, capital requirements do not systematically take into account direct interest rate risk in the banking book. In addition, changes in credit risk are only partially accounted for. An increase in risk resulting from a dynamic adjustment of loan-to-value ratios during phases of excessive real estate price growth would not, for example, automatically lead to an increase in capital requirements. In the current environment, risks that are not – or only partially – captured might be particularly high, and may have increased in recent years. Thus, the economic capital situation of these banks might have deteriorated, even if regulatory capital ratios have remained stable. Moreover, although all domestically focused banks fulfilled the regulatory minimum standards as at the end of 2010, there is considerable variation among them.

In response to signs of imbalances developing in the Swiss mortgage market and to the high uncertainty over the banks' true risk exposure, the SNB has intensified its monitoring of the mortgage market. For this purpose, at the beginning of 2011, it launched a comprehensive quarterly survey of banks. The survey results will be a key tool for analysing the vulnerability of the Swiss banking sector, and assessing the need for further policy measures.

Irrespective of this, it is important that banks with a combination of high interest rate risk exposure and high mortgage lending growth ensure that they are also able to bear those risks. In this regard, the SNB welcomes the announcement by the Swiss Financial Market Supervisory Authority (FINMA) that it will be stepping up its microprudential supervision of such institutions and, where necessary, imposing corrective measures.[4] Furthermore, a comprehensive revision of the self-regulation guidelines for mortgage-backed loans might make a substantial contribution to preventing the development of significant imbalances in the Swiss real estate and mortgage markets. It might, in particular, be worth considering the inclusion of quantitative 'best practice' standards as a complement to the qualitative guidelines. The Swiss Bankers Association and FINMA are currently discussing possible amendments to these guidelines (cf. box 2).

Ideally, microprudential supervision and self-regulation will prevent the build-up of systemic risk. However, experience – from both Switzerland and other countries – has shown that growth in real estate prices and in lending can be mutually reinforcing, especially in an environment of low interest rates. This procyclical behaviour could give rise to imbalances, the correction of which might trigger a real estate and banking crisis.

At best, the SNB's monetary policy can only play a minor role in containing such threats to financial stability. First, monetary policy's primary objective is to ensure price stability.[5] Second, monetary policy always affects the economy as a whole. Thus, its effect cannot be directed only at certain areas of the economy.

Henceforth, additional tools that could be used specifically to reduce a potential threat to financial stability should be considered, preferably before the need for action becomes critical. In Switzerland, there are currently no such macroprudential tools for directly containing a potential threat to financial stability arising out of developments in the real estate and mortgage markets. Likewise, the question of the division of responsibilities in this area has still to be addressed. For this reason, the SNB welcomes the Federal Department of Finance's recent decision to set up a committee of experts to draw up proposals on both macroprudential tools and responsibilities.

4 FINMA, *Annual Report*, 2010.

5 Price stability is measured based on the consumer price index (CPI). This index, however, does not contain house prices.

1 General economic and financial conditions

General economic and financial conditions for the Swiss banking sector have improved since the summer of 2010. The global economic recovery has become more sustainable, house prices have stabilised in most countries and credit quality in the US and some core euro area countries has started to pick up.

The situation differs considerably from one country to another, however. While the economies of some countries – like Germany and Switzerland – have grown faster than expected, the recovery has remained sluggish for countries facing sovereign debt problems, a distressed banking sector or ongoing imbalances in the real estate market (e.g. Ireland, Spain, Portugal, Greece and the UK).

Also, several short and medium-term economic and financial risk factors remain:

- In the short term, the combination of a sluggish recovery, lingering imbalances in the real estate market, and distressed banks and sovereigns in peripheral euro area countries could trigger another round of financial instability in the single currency zone. Higher commodity prices, because they crowd out other expenditures, represent an additional source of risk for the recovery of non-commodity exporting countries. Finally, in emerging economies, there are more and more signs that share prices are above the levels justified by fundamentals (such as the long-term average of earnings), thereby increasing the risk of a sudden reversal.
- In the medium term, persistently low interest rates may further stimulate asset prices and lead to future imbalances[6] with the associated corrections. The box on the real estate and mortgage markets shows that Swiss real estate prices are currently vulnerable to this scenario.

In the next twelve months, under our baseline scenario, the general economic and financial conditions for the Swiss banking sector will improve further, but the level of economic and financial risks will remain relatively high. Against this backdrop, short and long-term interest rates should increase further in most countries.

Under this scenario, in the US, rising household disposable income will continue to support private demand. The decline in house prices will slow and equity markets will continue to recover. Moreover, monetary policy should continue to be supportive, as inflationary pressures are set to remain rather weak. As a result, credit quality and the soundness of the banking sector will continue to improve.

In Europe, growth will be more subdued under the baseline scenario. High unemployment and fiscal austerity measures will take their toll on the recovery, while persisting inflationary pressures will force the European Central Bank (ECB) to pursue its tightening cycle. In countries that still face imbalances in the real estate market (e.g. Ireland, Spain and the UK), the downward pressure on prices will remain, hampering any significant improvement in credit quality and the soundness of the banking sector.[7] In emerging markets, a correction in share prices cannot be excluded, as better prospects in advanced economies could lead to a reversal of capital flows.[8]

In Switzerland, real activity will lose some momentum as the elevated level of the Swiss franc (in effective terms) will continue to weigh on net exports and margins. The slowdown should only be temporary, however, as world economic growth picks up, global uncertainty recedes (along with safe haven-driven pressures on the Swiss franc) and the real exchange rate trends towards its long-run equilibrium. Progressively diminishing unemployment will continue to support robust domestic demand, real estate prices will continue to increase moderately and credit quality will remain at a high level.

Based on the various risk factors mentioned above, we also give consideration to a plausible adverse scenario for the next twelve months, in which sluggish growth in the euro area leads to unsustainable sovereign debt burdens (especially in peripheral euro area countries) and further downgrades, or even restructuring, renewed stress in the banking sector and a tightening of credit and fiscal conditions. This adverse scenario is likely to trigger another bout of financial instability and to significantly dampen European and also global growth, reflecting the cross-country interconnectedness of the financial sector and the rise in global uncertainty.

Countries whose pre-crisis GDP growth was driven mainly by the housing sector may be particularly exposed. Their future growth performance – and therefore their ability to credibly finance a high and growing public debt – will be hampered by i) the difficulty in reallocating highly specialised and misallocated productive resources (both capital and labour), ii) tight financial conditions due to particularly severely affected bank balance sheets,

6 The BIS has also pointed out this risk (*80th Annual Report,* 2010).

7 This is also pointed out by the ECB (*Financial Stability Review*, December 2010) and the IMF (*Global Financial Stability Report*, April 2011).

8 The IMF also highlights this possibility in its *Global Financial Stability Report*, April 2011.

and iii) the necessary fiscal consolidation. Under the adverse scenario, risk premia will increase across the board, but the effect on long-term interest rates will be ambiguous. In the most resilient countries, rates will return to close to their lowest crisis levels, as increased risk premia will not compensate for the downward revision in inflation expectations and output growth. For the most vulnerable countries, however, concerns about the sustainability of debt will dominate and lead to a rise in long-term interest rates.

The Swiss economy will be severely affected under the adverse scenario. Swiss net exports will decline as foreign demand dries up and the value of the currency soars (reflecting safe haven–driven capital inflows). Global financial instability will also affect confidence, and both investment and consumption will slow down. As a result, unemployment will increase and real estate prices will decline moderately at national level. In regions where real estate currently appears overvalued, however, a more substantial price contraction cannot be excluded.

Economic recovery stronger than expected, but with large international disparities

The world economy fared better in 2010 than expected twelve months ago. Although sluggish by historical standards, the recovery slowly became more self-sustained in the course of the year, as fiscal stimulus measures and post-crisis inventory rebuilding were slowly replaced by private consumption and equipment investment.

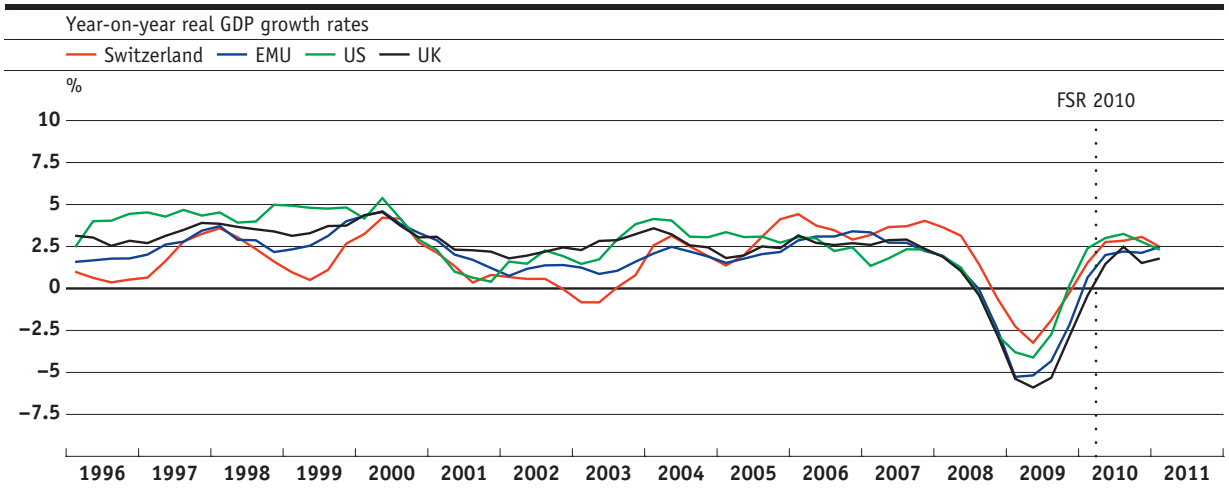
Yet, large disparities remained between countries. While some emerging market economies started to show signs of overheating – as strong capital inflows stimulated money creation – many advanced economies were still struggling to attain self-generating growth momentum. Encouraging signs came from US private consumption and equipment investment. In Europe, however, the picture was still mixed. While a weak euro helped boost an already dynamic Germany, many other countries saw their growth performance hampered by lingering financial and housing market-related uncertainties, a tight fiscal stance and a continuing rise in unemployment rates. Switzerland's economic recovery was relatively rapid compared to other countries (cf. chart 1). Domestic demand held up well and more than compensated for the (exchange rate-driven) slowdown in exports in the course of 2010.

Sovereign risk has increased in a number of countries

Broad financial support for the banking sector, substantial fiscal stimulus measures as well as decreasing tax revenues have brought sovereign debt concerns to the fore. Increases in risk premia on government debt were especially pronounced in Greece, Ireland and Portugal (cf. chart 2). Although increased sovereign debt is also a concern outside the euro area (e.g. Japan and the US),[9] these countries are currently not the focus of market attention.

In order to support financial stability within the euro area, the EU and the IMF proposed a EUR 750 billion financial stability package in spring 2010. Subsequently, the EU and the IMF set up financial assistance programmes for Ireland (EUR 85 billion) and Portugal (EUR 78 billion), to be financed

GDP growth — Chart 1



Source: SNB

9 IMF, *Global Financial Stability Report*, April 2011.

by the financial stability package. For Greece, an internationally coordinated support package had already been arranged in spring 2010 (EUR 110 billion). In March 2011, the European Commission agreed on establishing a permanent stability mechanism (the European Stability Mechanism, or ESM), with a higher effective lending capacity than the original financial stability package. Nevertheless, sovereign risk premia for Ireland, Portugal and other peripheral euro area countries have remained high.

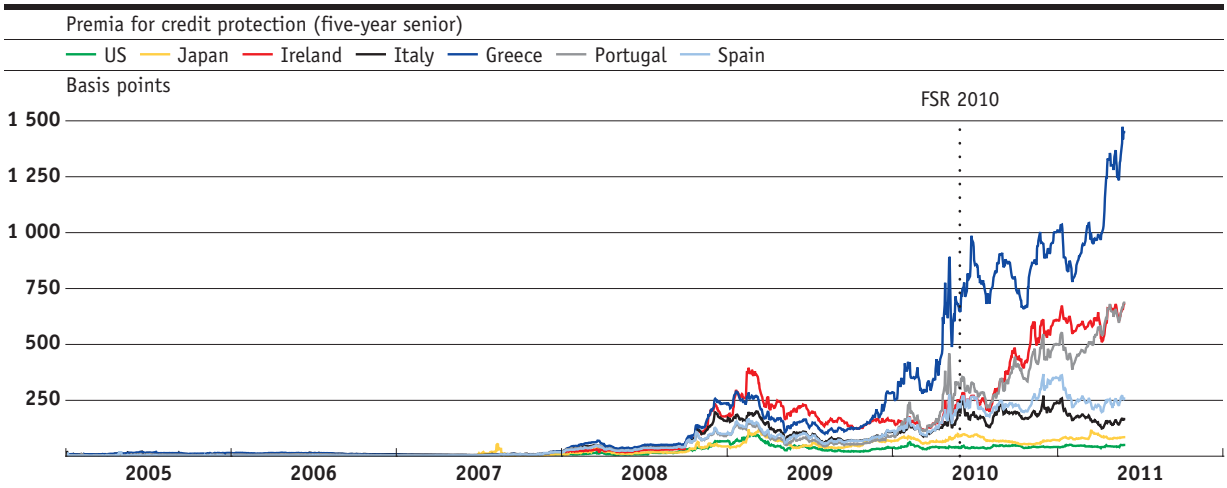
Interest rates remain at very low level

Short-term interest rates have stayed close to their historical minimum for more than two years now (cf. chart 3). Long-term interest rates have also remained low by historical standards, although over the last nine months they have begun to pick up substantially. This increase reflects greater confidence in the economic recovery and higher inflation expectations, but in some cases it also mirrors renewed concerns over sovereign debt.

Share prices continue to rise – signs of imbalances in emerging markets

After a brief dip in the second quarter of 2010, share prices have continued to increase. Japanese shares are an exception, having come under pressure since the natural disasters of March 2011. In emerging markets, a share price advance of about 140% since the trough in 2009 (cf. chart 4) has been accompanied by large capital inflows. This share price rise can be compared to increases of between 10% (Japan) and 85% (US) in advanced economies over the same period.

Sovereign credit default swap premia — Chart 2



Short-term interest rates — Chart 3

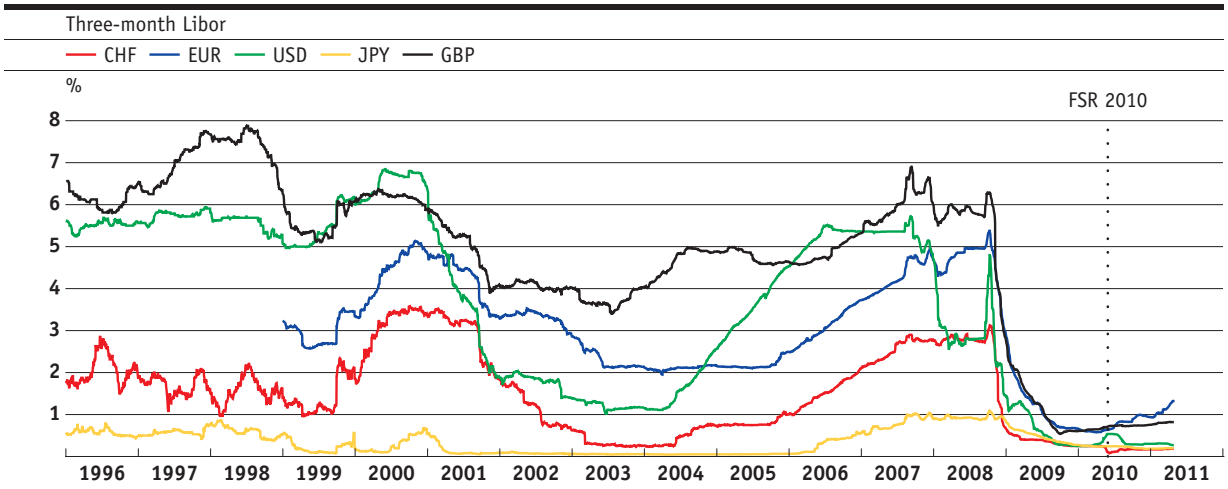


Chart 2: Source: Thomson Datastream

Chart 3: Source: SNB

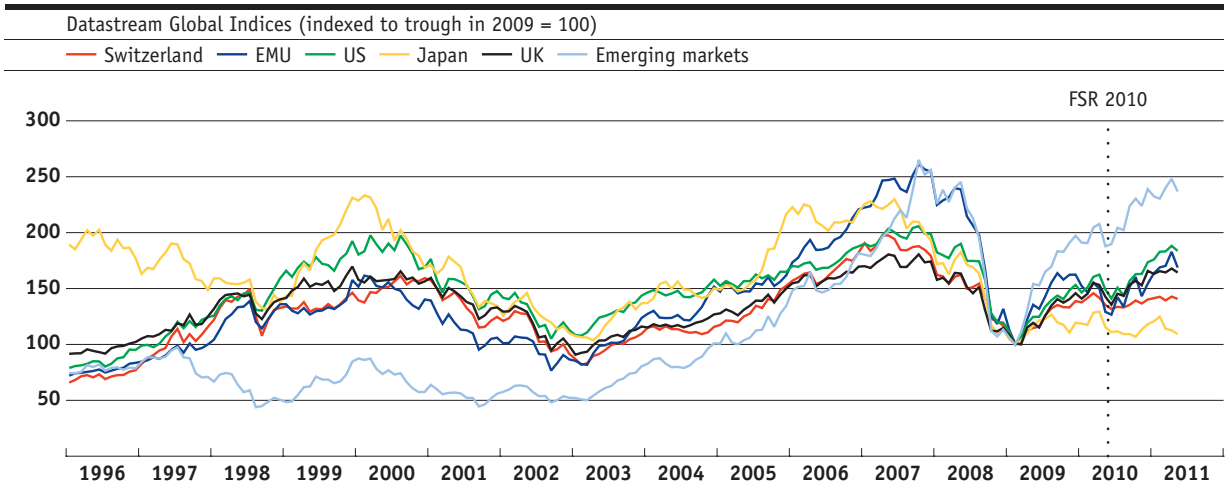
This exceptional performance by emerging market shares partly reflects the build-up of imbalances. Based on the ratio of prices to the long-term earnings average (cf. chart 5) as well as other fundamental measures of stock valuations (e.g. a valuation model based on discounted earnings), share prices in emerging markets appear relatively high. In advanced economies, by contrast, prices are currently below levels that appear justified on the basis of the same measures. In the medium term, however, the persistence of low interest rates may also favour the build-up of imbalances on the stock markets of advanced economies.[10]

Risks in real estate markets remain elevated

For many countries that experienced a housing crisis in 2008/2009, the fall in real estate prices subsided (e.g. in the US)[11] or even reversed (e.g. in France) in 2010. For others, however (e.g. in Ireland and Spain), prices have continued to fall. In Switzerland, real estate prices increased continuously throughout the crisis and are still rising (cf. chart 6).

Risks remain elevated for many real estate markets, especially in the UK and some euro area countries. In these markets, real estate price levels appear to be higher than justified by fundamental factors such as income, rents and interest rates. The Bank of England[12] and the ECB[13] reach similar conclusions in their latest financial stability reports. In the US and Switzerland, the level of real estate prices appears to be currently in line with fundamentals.

Stock market indices — Chart 4



Ratio of share prices to long-term average earnings — Chart 5

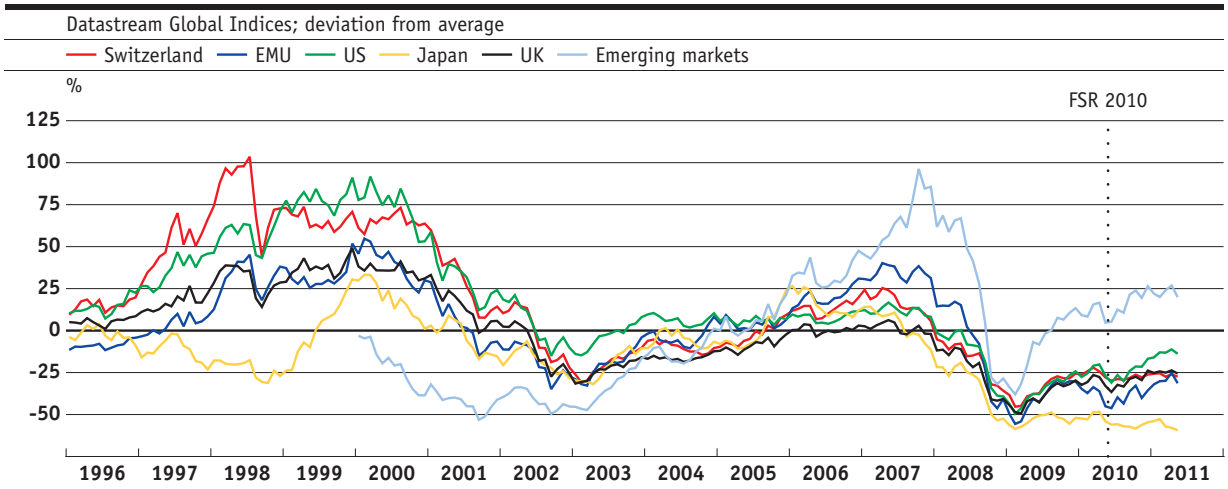


Chart 4: Source: Thomson Datastream

Chart 5: Source: Thomson Datastream

10 The BIS (*80th Annual Report*, 2010) and the IMF (*Global Financial Stability Report*, April 2011) also draw attention to this risk.
11 Backed by special homeowner programmes.
12 Bank of England, *Financial Stability Report*, December 2010.
13 ECB, *Financial Stability Review*, December 2010.

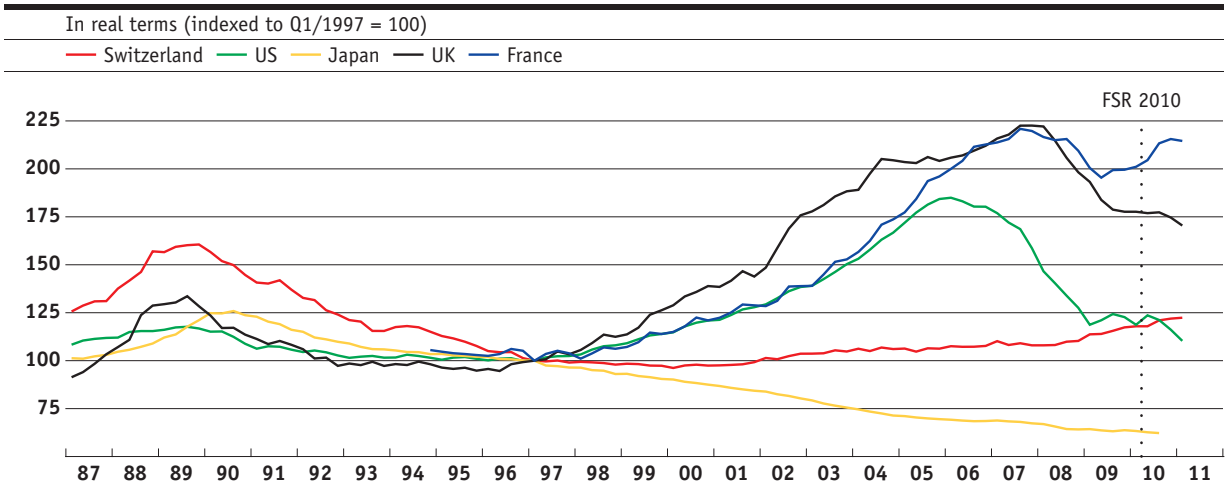
However, over the past few years, the growth rate of Swiss real estate prices has been higher than fundamentals would justify. Should prices continue to increase at the same pace – possibly encouraged by persistently low interest rates – imbalances in the Swiss real estate market would emerge in the medium term. At the regional level, there are already clear signs of overheating (cf. box 2).

Credit quality low in US and euro area, but high in Switzerland

Credit quality in the US and the euro area deteriorated markedly during the recent crisis and continues to remain low by historical standards. In the US, there are signs of a moderate improvement in credit quality over the past twelve months. Credit losses (charge-off rates; cf. chart 7) have declined from their peak and, according to Moody's, there are now more company upgrades than downgrades. Moreover, corporate bond spreads have continued to narrow after their substantial decrease in the immediate aftermath of the crisis (cf. chart 8). In the euro area, by contrast, non-performing loans continued to increase in most countries in 2010, and Moody's downgrade-to-upgrade ratio is only slightly below its peak level. Corporate bond spreads are well below the peak they reached during the crisis. Although they have remained relatively high over the last twelve months, they are still lower than in the US.

In Switzerland, credit quality remained at a relatively high level in 2010. Corporate bond spreads decreased to a level below their long-term average. The number of household defaults remained stable, while the number of corporate insolvencies increased slightly. Non-performing loans remained close to their historical low in 2010.

Residential real estate prices — Chart 6



US charge-off rates — Chart 7

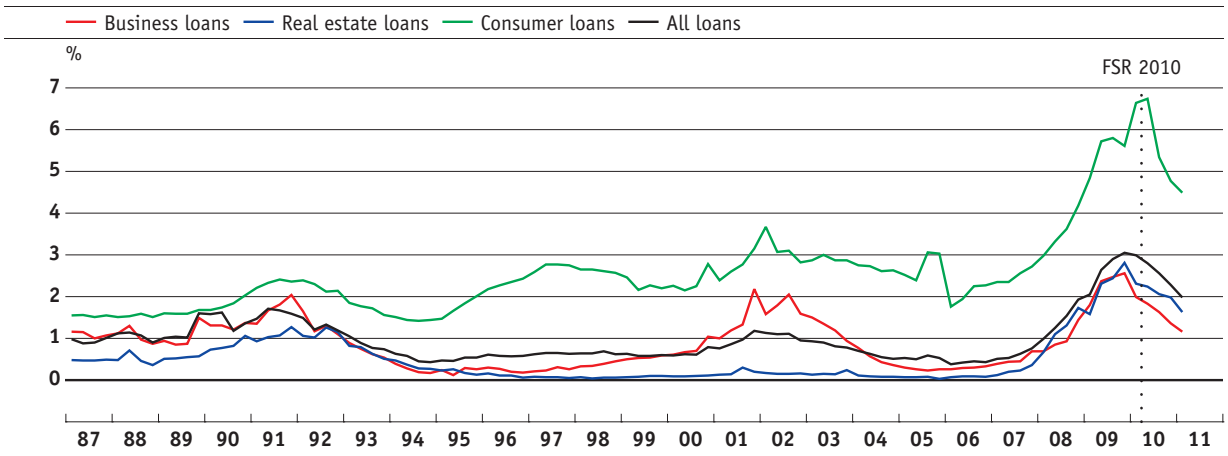


Chart 6: Sources: BIS, Halifax, IMF, S&P CaseShiller, Wüest & Partner

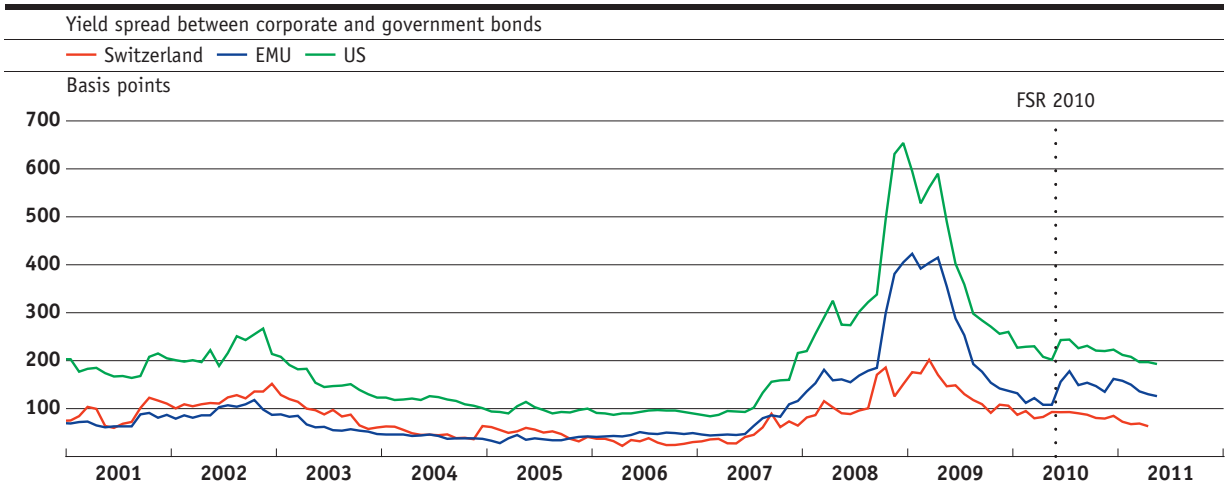
Chart 7: Source: Federal Reserve

International banking system remains vulnerable

The soundness of the international banking system improved in 2010, but banks remain vulnerable. As pointed out by the IMF,[14] although banks have improved their capitalisation and profitability, developments were uneven and capital levels are often relatively low compared to the riskiness of the assets. This is reflected in further downgrades of international banks by rating agencies. Market indicators also suggest the persistence of vulnerabilities. CDS premia for banks stagnated at a relatively high level (cf. chart 9). In peripheral euro area countries, CDS premia for banks increased strongly in 2010 and are now at a historically high level.

The main source of vulnerability for the international banking sector is still the low level of credit quality in the US and the euro area, combined with high leverage in the banking sector itself. In many countries, this risk factor is amplified by sovereign debt problems, weak economic performance and imbalances in the real estate market. Feedback effects between the banking sector and these factors could lead to a renewed escalation of the crisis. In addition, banks' traditional reliance on short-term funding makes them vulnerable to a situation in which liquidity dries up.

Bond spreads — Chart 8



Bank credit default swap premia — Chart 9

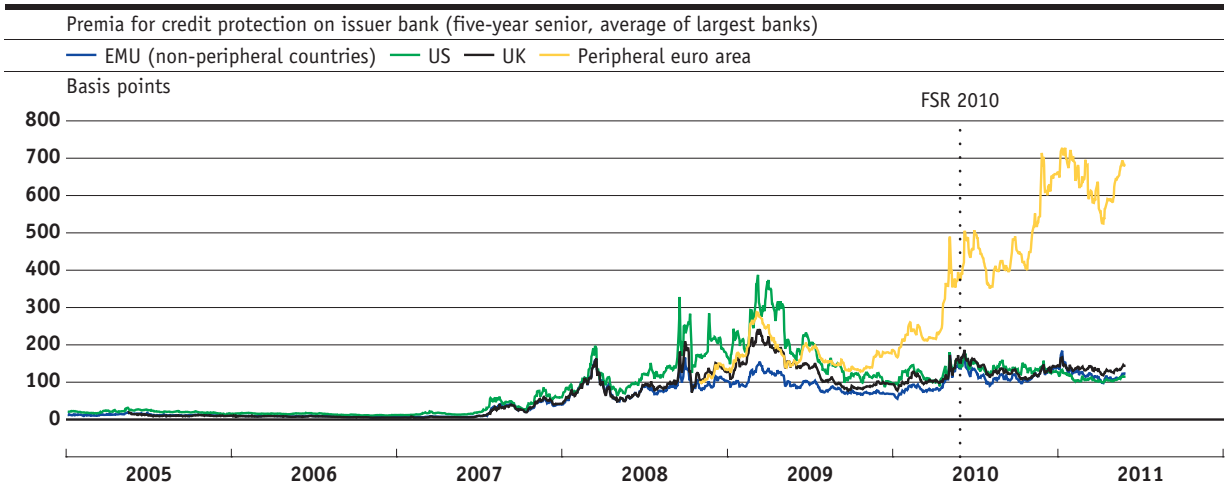


Chart 8: Sources: SNB, Thomson Datastream
* Yields (spot rates) for Swiss investment grade corporate bonds and for Swiss Confederation bonds, calculated by the SNB.
** Euro-Aggregate Corporate (investment grade, EUR-denominated) and Euro-Aggregate Government AAA indices, Barclays Capital.
*** US Corporate (investment grade, USD-denominated) and US Treasury indices, Barclays Capital.

Chart 9: Source: Bloomberg

14 IMF, *Global Financial Stability Report*, April 2011.

Box 1. Structure of the Swiss banking sector

By international standards, Switzerland has a remarkably large banking sector, in which the big banks occupy a key position. However, if domestic business is regarded separately, the domestically focused banks also play an important role.

At the end of 2010, the total assets of the Swiss banking sector amounted to CHF 3,582 billion, which is more than six times the annual gross domestic product (GDP) of Switzerland. Compared with the other G10 countries, this is the second highest ratio after the UK (cf. table B1).

The two big banks – UBS and Credit Suisse – account for two-thirds of total assets, which is roughly four times Swiss GDP. Compared with the other G10 countries, the ratio of the two biggest banks' assets to GDP is highest in Switzerland (cf. table B1). With respect to domestic business, however, the domestically focused banks are gaining in importance.

Cantonal, Raiffeisen, regional and other banks[15] play an important role in domestic lending and deposit business. Their aggregate share of the domestic lending market amounts to 62%. For domestic deposit business, their market share is over 74% (cf. table B2).

Since the beginning of 2008, these banks have clearly increased their share of the domestic market. In the lending market, they expanded their share by roughly 11 percentage points, a development which was driven primarily by cantonal banks (+6 percentage points). As regards deposit business, the market share rose by 4 percentage points, with cantonal banks again making the major contribution (+3 percentage points). For mortgage claims, the increase of 3 percentage points was less pronounced, with Raiffeisen banks accounting for the largest gain (+2 percentage points).

Despite the importance of all categories of banks operating in Switzerland, the cantonal, Raiffeisen and regional banks, together with the two Swiss big banks, dominate in terms of their size and systemic importance, and therefore remain the focus of analysis in this report.[16]

Table B1: International comparison

	Size of the banking sector (ratio of total assets to annual GDP)	Size of the largest banks (ratio of total assets to annual GDP)
Belgium*	3.2	2.6
Canada	2.2	0.8
France*	3.2	1.9
Germany*	3.4	1.1
Italy*	1.6	1.0
Japan	2.0	0.6
Netherlands*	4.4	3.3
Sweden*	3.5	2.2
Switzerland	6.6	4.3
United Kingdom*	7.0	2.5
United States	1.1	0.3

* Banking sector figures as at end of June 2010.

Sources: Bank of Canada, Bank of Japan, Bankscope, ECB, FFIEC, FINMA, Japanese Bankers Association, OECD, SNB

Table B2: Market share in domestic business, by bank category (in percent, as at end of 2010)

	Big banks	Cantonal banks	Raiffeisen banks	Regional banks	Other banks
Claims against customers	38.1	26.6	4.7	3.8	26.8
of which secured	36.1	18.1	5.2	4.3	36.3
of which unsecured	39.6	32.6	4.3	3.5	20.1
Mortgage claims	30.9	34.3	15.8	10.2	8.8
Deposits at Swiss bank offices	25.5	35.1	19.9	10.2	9.2
Total assets	32.3	29.3	11.2	7.4	19.8

Sources: FINMA, SNB

15 'Other banks' include private banks, stock exchange banks, foreign-controlled banks as well as branches of foreign banks.
16 Some of these 'other banks' also have a considerable market share in systemically important functions (cf. table B2). Therefore, the totals cited in the charts and tables of this report reflect a combination of cantonal, Raiffeisen and regional banks, together with the most important 'other banks'.

2 Profitability

Overall, the profitability of the Swiss banking system has improved substantially since 2009. From a financial stability perspective, sustainable profits are important, as they enable banks to build up a sound capital base from retained earnings, which can strengthen resilience to unexpected shocks. In 2010, profit developments were driven predominantly by big bank results, and in particular by UBS, which reported profits amounting to CHF 7.5 billion, a substantial recovery from the CHF 2.7 billion net losses recorded in 2009. For banks with a domestic focus, profits remained broadly unchanged from their 2009 level, well above the historical average.

Big banks

The big banks reported a combined net profit of CHF 12.6 billion in 2010, a CHF 8.6 billion increase from 2009. Both big banks are profitable again, with UBS's results driving the recovery. In 2010, UBS's net profits amounted to CHF 7.5 billion, compared to net losses of CHF 2.7 billion in 2009. Credit Suisse's net profits were down by CHF 1.6 billion from last year, amounting to CHF 5.1 billion in 2010. Measured by the return on assets (RoA), aggregate profitability increased to 0.54% from 0.17% in 2009. As assets remained stable, this suggests a combination of both increased productivity and revenue-generating capacity (cf. chart 10).

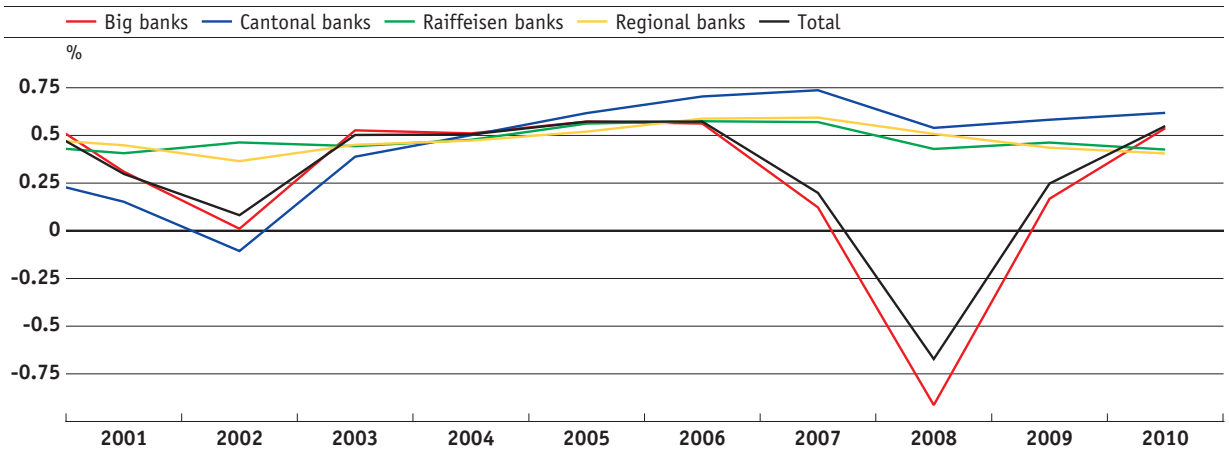
Despite concerns having been raised about the wealth management business of the big banks (cf. last year's *Financial Stability Report*), there is no concrete evidence of a structural change in this business segment. At Credit Suisse, over an eight-year horizon,[17] net income as well as net margins from private banking have remained relatively stable. At UBS, as a result of bank-specific problems, net income and net margins[18] from wealth management suffered noticeably during the crisis, and net new money outflows were considerable in 2008. In spite of these developments, the stock of assets under management remains large in a historical comparison. Net new money inflows reported in the first quarter of 2011 have been significant, confirming the positive developments observed in late 2010, even at UBS.[19]

Developments in operating income

Overall, operating income[20] at the big banks has increased, from CHF 53.9 billion in 2009 to CHF 61.2 billion in 2010. UBS's operating income increased by CHF 9.4 billion in 2010, while at Credit Suisse operating income decreased by CHF 2.1 billion. This difference is mainly the result of opposing developments in trading income at the two banks. Income derived from fees and commissions and from interest-generating activities has remained broadly unchanged.

For both big banks, fee and commission income remains the most important income component, making up around 50% of total income in 2010. Trading income constituted around 26% of total income, while interest income accounted for some 21%.

Return on assets — Chart 10



Sources: FINMA, SNB

17 2003–2010.
18 Net margins from wealth management business are approximated as income before tax divided by assets under management.
19 Source: Annual reports.
20 Operating income denotes the sum of net interest income, net fee and commission income, net trading income and other operating income.

Cost efficiency improved on aggregate

At both big banks, operating expenses fell by around 2% in 2010. As a result of cost and income developments, cost efficiency (as measured by the cost-to-income ratio) improved on aggregate for the big banks. The ratio amounted to 70% in 2010, compared to 76% in 2009. Cost efficiency at these banks has returned to pre-crisis levels.

Further fall in allowances, provisions and losses

Even though the credit risk of the internationally active Swiss banks has remained high (cf. chapter 1), allowances, provisions and losses at the Swiss big banks fell, on aggregate, by a further 70% in 2010 from an already low level. Both big banks reported reductions amounting to around CHF 1.5 billion. Provisions for credit losses at UBS amounted to CHF 66 million in 2010, compared to CHF 1.8 billion in 2009. At Credit Suisse, provisions for credit losses were net releases of CHF 79 million in 2010, compared to net provisions of CHF 506 million in 2009. Measured both in absolute terms and as a percentage of total credits, allowances, provisions and losses have fallen below their ten-year historical average.

Banks with a domestic focus

The profitability of domestically focused banks remains broadly unchanged from 2009. Taken together, net profits of cantonal, regional and Raiffeisen banks amounted to CHF 3.6 billion in 2010, an increase of 7% since 2009. Profitability as measured by RoA remained stable at 0.54%, slightly above the ten-year historical average (cf. chart 10).

Cost efficiency remained unchanged

Both income and expenses remained relatively constant in 2010, resulting in a stable cost-to-income ratio (54%). The cost-to-income ratios of domestically focused banks ranged between 61% for Raiffeisen banks and 51% for cantonal banks.

Interest rate margins historically low

Interest income remains the most important income component for all three categories of domestically focused banks, accounting for around 70% of total income on aggregate. The share is largest for Raiffeisen banks, for which interest income constitutes as much as 83% of total income. Despite credit growth amounting to around 5.8%, net interest income has remained relatively stable at domestically focused banks. Consequently, margins on interest business have fallen, from 1.7% in 2009 to 1.6% in 2010, in part due to competition but also due to a move towards lower margin products.[21] For all three bank categories, interest margins have been falling steadily since 2007, and are now well below their long-term historical averages. Coupled with above-average credit growth, this could be a sign of increased risk appetite at these banks (cf. chapter 3 and box 2).

For domestically focused banks, allowances, provisions and losses remained at a historically low level. In 2010, they amounted to CHF 0.3 billion, representing around 0.06% of total lending.

21 Interest rate margins are approximated as net interest income divided by total credits.

3 Risk

Compared to last year, no substantial decrease in risk has been observed at the big banks. Credit risk has only declined slightly, while market risk has increased. Consequently, the big banks are still exposed to considerable risk relative to their loss-absorbing capital (cf. chapter 4).

For the big banks, credit risk from their foreign portfolios constitutes the greatest source of risk under the baseline scenario. However, the potential losses would be moderate. Credit and market risk, amplified by potential contagion effects from the sovereign debt crisis in the peripheral euro area, would constitute the most important source of risk for these banks under the adverse scenario. The potential losses under this scenario would be substantial.

For domestically focused banks, growth in mortgage lending remained strong in 2010, against a background of low interest rates, rising real estate prices and intense competition. Such developments contributed to an increase in credit risk at these banks. Should the growth momentum observed in mortgage lending and real estate prices continue or accelerate, this could represent a significant threat to financial stability in the medium term.

Under the baseline scenario, the greatest risk for domestically focused banks stems from their continuing high level of interest rate risk exposure. A moderate increase in interest rates would result in perceptible – but essentially manageable – losses for many banks. Should the rise in interest rates be unexpectedly sharp and rapid, these banks could face considerable losses.

Under the adverse scenario, credit risk remains the greatest risk for domestically focused banks. This would be reflected in an increase in write-downs and provisions.

Big banks

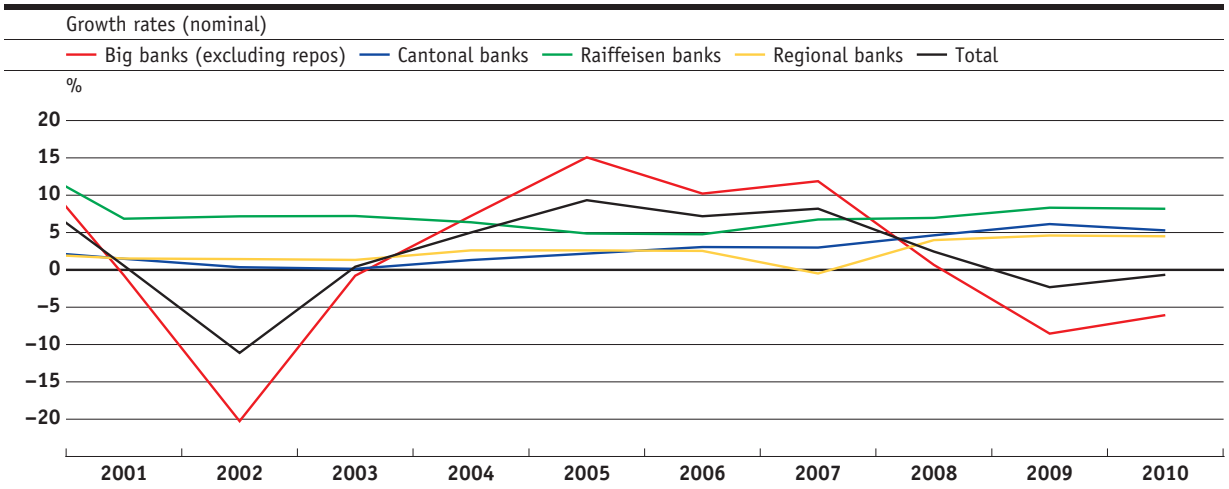
Slight reduction of credit risk

Where credit volumes are concerned, the big banks' credit risk positions[22] amounted to CHF 1,237 billion at the end of 2010 and remained virtually unchanged compared to 2009 (CHF 1,239 billion). For both banks, about 40% of these positions resulted from traditional lending, 35% from repurchase agreements (repos) and securities lending and borrowing (SLB) transactions, and the remaining 25% from loan commitments[23] and loans held for sale.

Traditional lending[24] at the big banks decreased from about CHF 530 billion in 2009 to CHF 503 billion in 2010 (cf. chart 11). About 60% of traditional lending is accounted for by loans to domestic customers. Domestic lending grew by about 1% from 2009 to 2010. This growth mainly reflects an increase in domestic mortgages from CHF 229 billion in 2009 to CHF 231 billion in 2010, and is significantly lower than the average rate of growth in domestic mortgage lending across all Swiss banks of about 5%. Foreign lending, by contrast, declined by almost 12% in the same period.

In contrast to traditional lending, relatively low-risk positions, such as repos and SLB contracts, grew from CHF 390 billion in 2009 to CHF 425 billion in 2010. Other credit risk exposures, such as loans held for sale or credit guarantees, declined from

Total lending (domestic and foreign) Chart 11



Sources: FINMA, SNB, annual reports

22 Credit risk exposures include traditional loans, loans held for sale, loan commitments, repurchase agreements (repos) and securities lending and borrowing (SLB) transactions. In principle, credit risk exposures also include credit derivatives (especially credit default swaps (CDS)). In this report, these exposures are discussed in the section on market risk.

23 Loan commitments also comprise credit guarantees and similar instruments.

24 At the end of 2010, UBS revealed that traditional lending also included cash collateral from derivatives transactions and that prime brokerage receivables and payables have also been included in the 'loans' and 'due from banks' categories that are counted as traditional lending. UBS now clearly distinguishes between these categories; as a result, the figures in the 2010 *Financial Stability Report* had to be adjusted.

CHF 319 billion in 2009 to CHF 308 billion in 2010 as a result of a decrease in credit guarantees.[25]

Where credit quality is concerned, backward-looking indicators suggest that the overall quality of the big banks' credit portfolios was already at a high level and even improved further in 2010. The ratio of non-performing loans to total loans dropped to 0.4% in 2010 (2009: 0.9%; cf. chart 12), and credit loss provisions at the big banks experienced a sharp decline. This presents a significant contrast to credit quality indicators that are not specifically related to the big banks' credit portfolios, such as those described in chapter 1. For the US and Europe, these indicators are still showing a low level of credit quality in historical terms, and for Switzerland, an average level of credit quality.

Indicators that combine information about the volume and quality of credit portfolios, such as risk-weighted assets or banks' internal models, suggest that credit risk at the big banks decreased slightly in 2010. The decrease in risk-weighted assets for credit risk was more pronounced at UBS (–15%) than at Credit Suisse (–4%). For both banks, a significant part of the decline was driven by the appreciation of the Swiss franc.[26] Credit Suisse's internal risk model points to a reduction of credit risk of about 3%.[27] UBS does not publish information from its internal risk models.

Under the baseline scenario, credit quality would improve in the US and Europe, and would remain relatively high in Switzerland. Potential losses from credit risk would be moderate for the big banks.

Under the adverse scenario, credit quality would decline significantly in the US and Europe, and decrease moderately in Switzerland. Potential losses from credit risk would be substantial and result from large sections of the big banks' balance sheets.

Varying developments in market risk

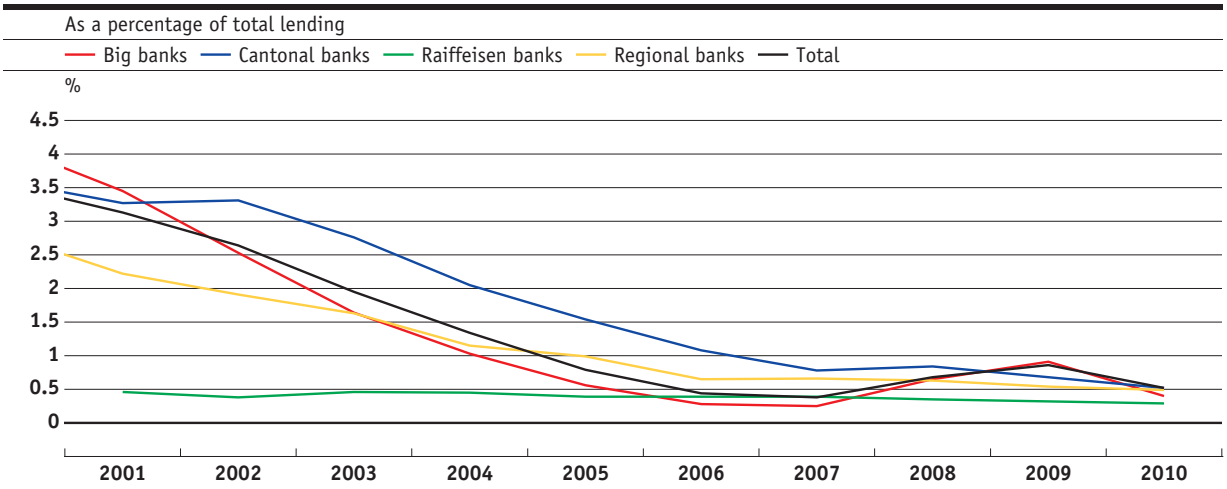
The big banks' trading portfolios totalled CHF 506 billion at the end of 2010 and were quite stable compared to 2009 (CHF 509 billion). At both banks, debt instruments made up roughly 60% of the trading portfolios. Equity instruments accounted for about 30%, while the remainder comprised other assets, such as precious metals.

Although derivatives positions are not included in the above-mentioned trading assets, they are also a major source 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 between 2006 and 2008. At the end of 2010, these replacement values amounted to CHF 108 billion, compared to CHF 142 billion in 2009.[28]

Indicators of market risk, such as risk-weighted assets, Value-at-Risk (VaR),[29] or banks' internal models, show an increase in market risk at UBS, but provide a mixed picture for Credit Suisse:

– At UBS, risk-weighted assets for market risk increased from CHF 13 billion in 2009 to roughly CHF 21 billion in 2010. In its 2010 annual report, UBS stated that the increase was a result of it having taken more trading risk in line with its plans communicated in the second half of 2010.[30] End-of-period regulatory VaR at group level increased from CHF 79 million in 2009 to CHF 94 million in 2010.

Non-performing loans — Chart 12



Sources: FINMA, SNB

25 Source: Annual reports.
26 Credit Suisse highlights that the decline in overall risk-weighted assets (credit risk, non-counterparty risk, market risk and operational risk) of roughly CHF 3 billion reflects a CHF 15 billion foreign exchange translation effect offset by increases in credit risk, market risk and operational risk. UBS reveals that the weakening of several major currencies against the Swiss franc has been a significant contributor to most of its risk-weighted asset reductions. Source: Annual reports.
27 Credit risk comprises the following categories: private banking corporate and retail lending, international lending and counterparty exposures, emerging market country event risk as well as real estate and structured credit. Source: Credit Suisse, *Annual Report*, 2010.
28 Source: Annual reports.
29 The VaR (Value-at-Risk) measures maximum losses within a given time span and 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.
30 UBS, *Annual Report*, 2010, p. 181.

– At Credit Suisse, risk-weighted assets for market risk rose from about CHF 17 billion in 2009 to CHF 19 billion in 2010. This increase reflects higher exposure to credit products and residential mortgage-backed securities mitigated by a significant foreign exchange rate translation effect.[31] By contrast, end-of-period regulatory VaR at group level fell from CHF 131 million in 2009 to CHF 124 million in 2010. According to Credit Suisse's economic capital framework, market risk declined by 19%.[32] However, a substantial part of the overall reduction in Credit Suisse's position risk comes from currency translation effects.[33]

Under the baseline scenario, potential losses from market risk would be low for both big banks. Potential losses would materialise from emerging market exposures that are sensitive to equity risk, since emerging market equity prices would decline moderately. However, the potential losses from these exposures would be offset by positive developments in credit spreads and equity markets in advanced economies.

Under the adverse scenario, global share prices would drop and growth would be sluggish. Potential losses from market risk would be substantial for both banks, and result from credit spread and equity risk.

Moderate direct exposures to peripheral euro area

Exposures to peripheral euro area countries, measured by gross claims, declined from about CHF 60 billion in 2009 to CHF 46 billion in 2010.[34] Of this amount, CHF 2 billion are claims against Greece, CHF 12 billion against Ireland, CHF 15 billion against Italy, CHF 2 billion against Portugal and CHF 15 billion against Spain. Gross claims are reported in accordance with the format defined by the Bank for International Settlements (BIS). About half of the exposure is held against the non-bank private sector, while the rest is equally divided between sovereigns and banks. The overall exposure is relatively low by international standards and represents about 3% of the big banks' cross-border exposures.[35] About 50% of claims against banks and the private sector and roughly 20% of claims against sovereigns are secured with guarantees and collateral.

Gross claims reported in accordance with the BIS format provide the accounting view and do not reflect the risk management view of the big banks. The main difference between gross positions from the accounting view and gross positions from the risk management view is the netting of positions in the trading book such as repos and reverse repos. Therefore, exposure figures reported by banks are significantly lower.[36] According to Credit Suisse's risk management view, published in its 2010 annual report, gross exposures to the sovereigns of the peripheral euro area amount to CHF 3.4 billion. Gross exposures to financial institutions and the private sector (corporate and other) come to CHF 4 billion and CHF 6.1 billion respectively. Net exposures, including the value of hedges, such as credit default swaps (CDS), amount to CHF 0.3 billion against sovereigns, CHF 1.8 billion against financial institutions and CHF 2.3 billion against the private sector. UBS publishes its five largest exposures to the sovereigns of advanced European economies rated AA and lower.[37] It does not provide information about its exposures to other sectors (financial institutions or corporate) or to peripheral euro area countries currently under the scrutiny of the markets. Taken together, both the accounting view and the risk management view suggest a low direct contribution of these exposures to market and credit risk. For the interpretation of the risk management figures, it is important to note that risk management perspectives differ substantially across banks. Hence, the related figures cannot be easily compared and interpreted. They therefore constitute a complement to and not a substitute for the standardised statistical reporting.

Under the baseline scenario, the contribution made to the big banks' market and credit risk by exposures to peripheral euro area countries would be low. Under the adverse scenario, the direct impact would be moderate. It should be noted, however, that a resurgence of problems in the euro area periphery is one of the potential triggers for the adverse scenario. Therefore, the impact of direct exposures to the peripheral euro area must be considered in a broader sense, where the two big banks would also be affected by credit and market losses caused by an overall deterioration of the economic and financial market situation.

Low interest rate risk in banking book

Interest rate risk results from a 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

31 Credit Suisse, *Annual Report,* 2010.

32 Market risk comprises the following categories: fixed income trading, equity trading and investments. Due to a methodological change, comparable economic capital figures exist only for Q4/2010, Q3/2010 and Q4/2009.

33 Overall position risk at Credit Suisse declined by 10% from 2009 to 2010. Excluding the USD translation effect, overall position risk decreased by 2%. Source: Credit Suisse, *Annual Report*, 2010.

34 Source: SNB statistics based on the principles of the consolidated banking statistics of the BIS. The numbers in the main text refer to the foreign claims of the big banks on a consolidated basis. They are measured from an ultimate risk perspective. To illustrate the ultimate risk concept, consider a loan from Swiss Bank A to Company X's subsidiary in Austria that is guaranteed by Company X's headquarters in Germany. From the ultimate risk perspective, this loan exposes Swiss Bank A to Germany.

35 BIS, *BIS Quarterly Review*, 'International banking and financial market developments', March 2011.

36 In the accounting view, repos and reverse repos would be treated separately as assets or liabilities. In the risk management view, given certain conditions (e.g. same issuer and maturity), these positions can be netted. Therefore, gross exposures from the risk management view are typically lower than gross figures from the accounting view and provide a more refined picture of the underlying risks.

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. A bank's net present value equals its expected future cash flows discounted by the relevant risk-free interest rates.

Interest rate risk affects both trading book and banking book positions. Interest rate risk in the trading book is included in market risk measures. It decreased moderately at both big banks.[38] The impact of interest rate risk on banking book positions is reflected in both banks' assessment of the impact of a parallel increase in the interest rate curve on the present value of cash flows from their banking book positions.[39] For the interpretation of these figures, it is important to highlight that interest rate risk could materialise over a long time period in the form of lower revenues. The impact of this risk on the banks' profits and losses is not necessarily immediate.

At UBS, interest rate risk in the banking book increased sharply compared to the previous year. A parallel increase in the interest rate curve by 1 basis point would lead to a decline in the present value of its banking book positions of CHF 16.6 million in 2010 (2009: CHF 1.8 million). However, UBS points out that a parallel shift in interest rates by 200 basis points on the present value of its banking book exposures is significantly below the 20% threshold of eligible regulatory capital specified by regulators.[40]

The opposite is the case at Credit Suisse. A parallel increase in the interest rate curve by 1 basis point would lead to an increase in the present value of its banking book positions of CHF 8.5 million in 2010 (2009: CHF 7.7 million). In addition, Credit Suisse provides information about the impact of parallel shifts in interest rates by 100 and 200 basis points respectively, as used by regulators. A parallel increase in interest rates by 200 basis points would lead to an increase in the present value of banking book positions of CHF 1.7 billion. A downward shift of 200 basis points would result in a decline in the present value of banking book positions of CHF 1.5 billion. This accounts for less than 5% of Credit Suisse's currently eligible capital at the end of 2010.

Under the baseline scenario, general interest rates would increase moderately, with the result that potential losses from interest rate risk in the banking book would be low for UBS, while Credit Suisse may even record a profit. A sharp and rapid increase in general interest rates would affect UBS moderately. Under the adverse scenario, monetary policy would have to stay accommodative in order to counterbalance a fallback into recession. Interest rates in some countries could even fall; this would have a moderately adverse impact on Credit Suisse.

Banks with a domestic focus

Credit risk increases further

In 2010, the lending volume, which is driven particularly by mortgage loans, continued to grow, albeit at a slightly slower rate. Although backward-looking indicators show the quality of domestically focused banks' credit portfolios to be high, the combination of low interest rates, rising real estate prices and intense competition could result in a serious threat to financial stability in the medium term. Indicators that combine information about the volume and quality of the credit portfolio also suggest that credit risk increased further.

Lending growth still high; driven by mortgage loans

Given their business model, domestically focused banks place most emphasis on their lending business. On average, lending makes up some 80% of total assets. Mortgage claims represent around 90% of total loans. Roughly three-quarters of this figure is accounted for by households and one-quarter by companies. The remainder is made up of unsecured claims (7%) – such as current account advance facilities or investment loans – and other secured claims (3%), both of which are only of secondary importance in terms of volume.

In 2010, total lending by domestically focused banks grew by 5.8%. With a growth rate of 6.1%, mortgage lending made a significant contribution to this increase. Although these growth rates are slightly weaker than in the previous year (total lending in 2009: 6.2%; mortgage lending in 2009: 6.9%), they are still higher than the long-term averages. Over a ten-year horizon, total lending grew by 4.2%, while mortgage lending grew by 5.0%. Growth rates vary considerably, both between bank categories and between individual institutions within each category.

Mortgage lending at Raiffeisen banks continued to grow strongly in 2010, at 8.1%; a slightly

37 These exposures cover Italy, Belgium, Iceland, Greece and Portugal. In total, gross exposures amount to roughly CHF 3.5 billion, of which CHF 2.8 billion are accounted for by Italy. UBS's net exposures to these countries total CHF 1 billion.

38 At UBS, the end-of-period VaR (10-day, 99% confidence level) for interest rate risk in trading positions declined from CHF 116 million at the end of 2009 to CHF 96 million at the end of 2010. Credit Suisse does not provide a separate VaR for interest rate risk. It reports a VaR (one-day, 99% confidence level) for interest rate and credit spread risk, which declined from CHF 116 million at the end of 2009 to CHF 95 million at the end of 2010. However, Credit Suisse states that the decline in the overall end-of-period regulatory VaR reflects decreased interest rate exposures.

39 These assessments take hedges and both the assets and liabilities sides of the banking book into account and are published in the banks' annual reports.

40 It is not necessarily the case that the impact of a parallel interest rate increase of, say, 200 basis points is equal to 200 times the impact of a 1 basis point increase. There could be non-linearities because of non-linear hedges against interest rate risk.

lower rate than the previous year (2009: 9.1%). Despite being somewhat weaker than a year earlier, mortgage lending growth at cantonal banks remained robust at 5.8% (2009: 6.9%). At regional banks, growth rates were around 5%, more or less unchanged from 2009.

Corporate mortgage loans are an important sub-segment, accounting for around one-quarter of domestically focused banks' mortgage lending. In 2010, corporate mortgage lending at regional banks grew by 4.7%. At cantonal and Raiffeisen banks, growth in this loan segment was substantially higher, amounting to 9.4% and 11.2% respectively.

The variation in mortgage lending growth rates between the individual institutions is pronounced. In 2010, domestically focused banks – excluding the 10th and 90th percentiles – registered growth ranging between 1.4% and 9.2%. Over the last three years, certain banks have recorded persistently high mortgage lending growth. For banks with a cumulative market share of around 20%, growth in mortgage loans has thus been well above average. Overall, their mortgage loans have risen by 8.7% per annum.

For unsecured claims, the loan category that, on average, carries the highest risk, growth was only slightly up on 2009 at cantonal banks (0.9%) and regional banks (1.3%), while Raiffeisen banks even recorded a decline of 3.4%. For other secured claims, the differences across bank categories were more pronounced. While they rose at cantonal banks and Raiffeisen banks by 8.3% and 2.7% respectively, they dropped by 6.4% at regional banks.[41]

High credit quality according to backward-looking indicators, but increase in credit risk in medium term

Backward-looking indicators of credit quality show that the quality of the domestically focused banks' credit portfolios is high. The share of non-performing loans continued to decline in 2010 (cf. chart 12). The same is true for write-downs and provisions. The recession in 2009 did not bring about a systematic rise in write-downs and provisions at domestically focused banks.

However, the favourable quality of the domestically focused banks' credit portfolios signalled by the backward-looking indicators needs to put into perspective for two reasons.

First, the fact that corporate insolvencies rose to a relatively high level in 2010 suggests a decline in the quality of corporate loans. In addition, although spreads on corporate bonds narrowed (cf. chart 8), their level suggests that average market expectations on defaults are more or less in line with the long-term average. This assessment contrasts strongly with the exceptionally low level of non-performing loans and new write-downs and provisions at banks, in historical terms.

Second, low interest rates and rising real estate prices may encourage the build-up of substantial risks in domestically focused banks' mortgage lending in the medium term. These risks are typically not immediately reflected by indicators such as write-down rates and the share of non-performing loans (cf. box 2).

Persistently low interest rates give borrowers who only just meet the affordability criteria a better chance of being able to continue making their interest payments. If these borrowers become overextended and encounter difficulties in servicing the debt, rising real estate prices and high demand mean that the likelihood of standard properties being sold without major losses is good.

The build-up of credit risk in the mortgage market may thus go unnoticed to begin with, as potentially unsustainable developments do not immediately result in losses. Nevertheless, the associated threat to banks, and hence also to financial stability, rises in the medium term. This increased threat is particularly attributable to the fact that the mortgage market constitutes a risk concentration for domestically focused banks.

Indicators combining lending volume and quality suggest a continued rise in credit risk

Risk-weighted assets combine information on the volume and quality of credit portfolios. Compared to 2009, risk-weighted assets for credit risk grew in 2010 in proportion to the lending volume. The lending volume of all domestically focused banks grew by 5.8%, while risk-weighted assets recorded an increase of 4.8%.[42] Although risk-weighted assets at most banks grow in step with the lending volume, this does not necessarily mean that the increase in credit risk is proportional to the rise in volume.

For instance, the risk weighting for direct and indirect mortgage-backed positions only broadly factors in the loan-to-value ratio and the property type, while the borrower's creditworthiness is not taken into account. Furthermore, rising real estate prices allow banks to back mortgage loan portfolios

41 Source: SNB statistics.

42 Source: SNB statistics.

with less capital, provided they revalue the property serving as collateral. Thus a deterioration in the borrower's creditworthiness coupled with an increase in the threat of a real estate price correction will not necessarily result in a rise in risk-weighted assets. Accordingly, in the current environment, the increase in credit risk attributable to movements in risk-weighted assets could be underestimated.

Market risk of moderate importance overall

Accounting for only around 2% of total assets of domestically focused banks at the end of 2010, the trading books of these banks are of moderate importance on the whole. Nevertheless, the share of trading assets increased compared to 2009. In 2010, trading assets at cantonal banks represented about 3.6% of total assets (2009: 2.8%). The corresponding figure for Raiffeisen banks was 0.9% (2009: 0.4%) and for regional banks, 0.2% (2009: 0.1%). Not only did the share of trading assets in total assets increase overall, it also fluctuated to a far greater degree within the individual bank categories compared to 2009. At cantonal banks, for instance, the share of trading assets in total assets fluctuated between 0% and 11.5% (2009: between 0% and 7%).

Despite the increase in the share of trading assets in total assets at cantonal and Raiffeisen banks, the share of risk-weighted assets for market risk in total risk-weighted assets shows that the importance of market risk for domestically focused banks has remained moderate. At cantonal banks, risk-weighted assets for market risk accounted, on average, for roughly 3% of total risk-weighted assets in 2010 (2009: 2%). At Raiffeisen banks, the corresponding figure was approximately 1% (2009: 1%), while at regional banks, it once again remained close to 0%.[43]

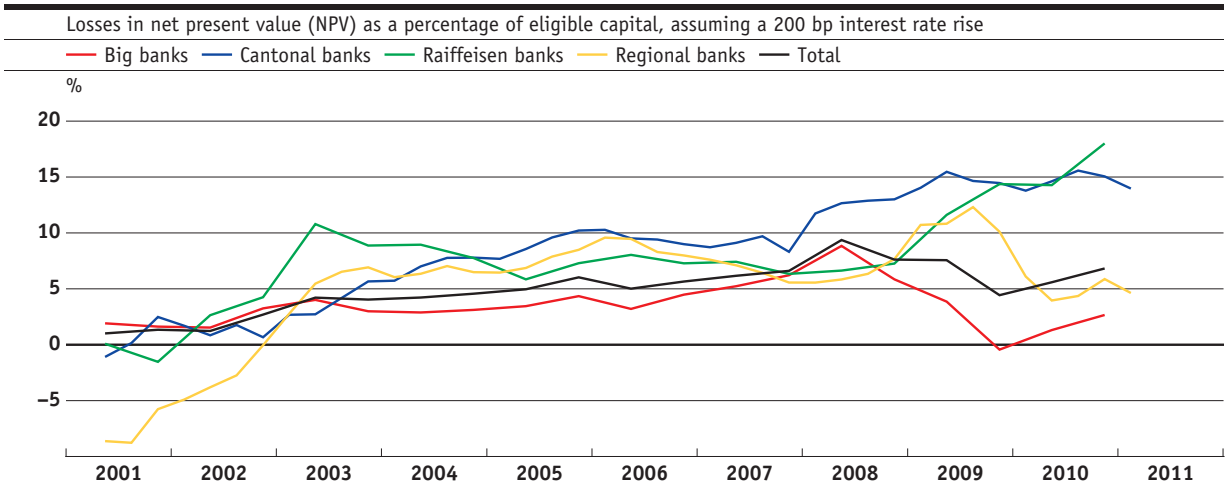
Direct interest rate risk remains high overall, but significant differences exist both between and within bank categories

Overall, direct interest rate risk[44] for domestically focused banks remained at a high level in 2010. However, the picture is mixed, not only from one bank category to another, but also within each category. Some banks show a positive correlation between the reported interest rate risk and the growth in mortgage lending.

In response to the persistent and intense competition, many banks have continued to take on high interest rate risk exposures in order to limit the reduction in their earnings potential. At Raiffeisen banks, interest rate risk reached a new peak. If the general level of interest rates were to rise by 200 basis points, the net present value of Raiffeisen banks would decline by 18% of their eligible capital (cf. chart 13). At 14.8%, interest rate risk at cantonal banks remained at a similarly high level to that of 2009. Regional banks, meanwhile, registered a decline in interest rate risk.

The variation in interest rate risk is considerable within both the cantonal and the regional bank categories. If the general level of interest rates were to increase by 200 basis points, cantonal banks – excluding the 10th and 90th percentiles – would suffer a decline in the net present value of their eligible capital of between 6.7% and 24.8%. For a similar sample of regional banks,[45] the inter-

Interest rate risk — Chart 13



Sources: FINMA, SNB

43 Source: SNB statistics.
44 For details on the method of measuring interest rate risk, cf. pp. 19–20.
45 Excluding the 10th and 90th percentiles.

est rate risk would range from an increase of 1.9% in the net present value of their eligible capital to a decline of 15.6%.[46]

It is to be noted in this context that the reported interest rate risk could underestimate the banks' actual risk. In order to calculate interest rate risk, banks make the historically based assumption that, for customer deposits, repricing maturities considerably exceed those of very short-term liabilities. Should the deposits that flowed to domestically focused banks during the recent crisis prove to be particularly interest rate-sensitive, a rise in interest rates would lead to an unexpectedly large outflow of funds. Consequently, interest rate-related costs resulting from a rise in interest rates would be larger for these banks than assumed in risk calculations.

It should also be noted that, despite the positive and relatively steep interest rate curve, interest rate margins at banks with a domestic focus have narrowed (cf. chapter 2). As a result, the risk/return profile at many of these banks has deteriorated further.

In order to interpret interest rate risk, it is important to bear in mind that the reported wealth effect can be realised over a long time period in the form of lower earnings. The short-term earnings outlook can be roughly estimated if the cash flows of assets and liabilities are broken down by repricing maturity and compared with one another. Given the marked overhang in cash flows with short repricing intervals on the liabilities side and a considerable increase in the proportion of cash flows with long repricing intervals on the assets side, a rise in interest rates over the next year would result in a perceptible and immediate loss in earnings for a few banks.

Medium-term risk for domestically focused banks

Under the baseline scenario, direct interest rate risk would constitute the greatest risk for domestically focused banks.

In view of the current risk profile at many domestically focused banks, a moderate rise in the overall interest rate level would result in a perceptible loss in earnings for only a few institutions. Should there be an unexpectedly sharp and rapid rise in interest rates, the materialisation of interest rate risk could give rise to substantial losses for a number of banks, including larger institutions. These losses would be substantial compared to the current ability of the banks to absorb losses; nevertheless, they should be manageable.

Alongside this, a slight rise in write-downs and provisions is not unlikely, given the increase in the number of corporate insolvencies and the potential effect of a gradual normalisation of interest rates on companies with short-term debts. By contrast, it is unlikely that credit risk from mortgage lending will materialise under the baseline scenario.

Under the adverse scenario, credit risk represents the greatest source of risk for domestically focused banks.

As a result of the declining real estate prices assumed under this scenario and the effects of a slowdown in global economic growth on the corporate sector, credit risk would emerge – in connection with both corporate and mortgage lending – and lead to an increase in write-downs and provisions. This would particularly affect banks with high exposures in regions showing signs of overheated real estate markets.

In the medium term, mounting risk in the real estate sector would constitute the greatest risk for banks with a domestic focus. Given the available data, a reliable assessment of the risks on the real estate and mortgage markets can only be carried out to a limited extent. The survey launched by the SNB at the beginning of 2011 should allow a more accurate risk assessment in the future.

46 Source: SNB statistics.

Box 2. Real estate and mortgage markets

The real estate and mortgage markets are very important for financial stability. They represent a risk concentration for part of the banking sector, and developments in these markets have triggered banking crises on many occasions. The SNB already drew attention to potentially unsustainable developments in the Swiss real estate and mortgage markets in last year's *Financial Stability Report*.[47]

The current environment continues to be characterised by low interest rates, a high level of competition and, more generally, indications of a high risk appetite on the part of several banks. It is therefore an environment conducive to the development of imbalances in the real estate and mortgage markets.

There are currently no indications of a general overvaluation on the Swiss real estate market. However, if the momentum in real estate prices observed in the recent past continues, it could constitute a medium-term risk to financial stability. Considerable uncertainty is, however, associated with the assessment of both real estate price developments and the risks entered into by banks.

Significance of the real estate and mortgage market for financial stability

The mortgage market constitutes a risk concentration for domestically focused banks, with mortgage claims making up approximately 70% of their assets. The big banks are also very active in domestic mortgage lending. A fall in real estate prices, together with a rise in mortgage loan defaults, would therefore affect the entire Swiss banking system.

In the past, banking crises triggered by the real estate market have repeatedly resulted in considerable costs to the economy. For example, at the beginning of the 1990s, falling real estate prices and rising mortgage rates in Switzerland triggered a banking crisis which ushered in a prolonged phase of stagnation in the economy. The recent financial crisis, too, was strongly associated with falling real estate prices in the US, the UK, Spain and Ireland.

Environment might encourage the development of imbalances in real estate and mortgage market

The SNB's very expansionary monetary policy, which is geared to price stability, is one of the reasons why mortgage rates in Switzerland have been at a very low level for several quarters now. As borrowers and banks become more accustomed to this situation, they may underestimate the risk of sudden interest rate changes.

Swiss mortgage rates for residential real estate continued to fall into the third quarter of last year. Despite rising slightly in the fourth quarter of 2010 and the first quarter of 2011, mortgage rates have been at an extremely low level in historical terms for some time now. Since September 2008, five-year fixed rates have dropped by about 130 basis points to the current level of 2.7%. Variable mortgage rates have also stood at around 2.75% for two years. By contrast, between 1970 and 1998, they were consistently over 4%. Moreover, chart B1 shows that, at the end of 2010, the volume-weighted average mortgage rate reached a historical low.

In addition, increased competition among banks has led to a narrowing of interest rate margins. In spite of a steeper interest rate curve and growing interest rate risk, interest rate margins[48] for domestically focused banks have narrowed by an average of 30 basis points since 2007 and currently average about 1.6%. While competition is an important prerequisite if a market economy is to function efficiently, pressure on interest rate margins can restrict the ability of banks to cover expected future credit losses out of current earnings.

Furthermore, there are indications that several banks' risk appetite in mortgage lending is high. A survey conducted by the SNB in 2010 revealed that banks with a significant market share have internal lending standards that stand out in terms of their lack of conservatism and/or extend a growing volume of loans that do not meet their internal standards. In addition, many banks do not seem to be in a position to reliably assess their overall risk situation in relation to the Swiss mortgage market.[49] On the basis of on-site inspections, FINMA reached a similar conclusion.[50]

Continued increase in real estate prices

Real estate prices in Switzerland have continued to rise in this low-interest-rate, high-competition environment. Chart B2 shows real asking prices for single-family houses and owner-occupied apartments.[51] Since early 2000 asking prices for single-family houses have increased by 27%; those for owner-occupied apartments have leapt by as much as 44% in real terms. Over the past two years, real prices for single-family houses have risen by 8%; those for owner-occupied apartments by 10%.

This brings real estate prices across Switzerland – according to various indicators – close to the level justified by fundamentals, suggesting that the real estate undervaluation resulting from the crisis in the 1990s is coming to an end. Consequently, in the medium term, a continuation of the price momentum of the past few years would result in a general overvaluation of properties. However, the substantial variation in the price indices of the different providers makes it difficult to identify the emergence of such an overvaluation. Table B3 shows the considerable variation in the movements of the price indices compiled by the different providers.

Nevertheless, several indicators suggest that overheating is already becoming apparent in the owner-occupied apartment and apartment building segments. As mentioned, prices for owner-occupied apartments have risen particularly sharply. Any decline in their prices could also impact negatively on the prices for single-family houses, since these two housing forms can be substituted for one another.

Finally, there are considerable regional differences, and – already now – the real estate price levels observed in the regions surrounding Lake Geneva, Lake Zurich and Lake Zug as well as certain tourist areas is only partially justified by fundamentals. In these regions, factors such as changes in population, income, rents and interest rates only explain part of the real estate price growth over the past ten years. In saying this, it must be borne in mind that the quality of data used to assess the sustainability of price develop-

47 SNB, *Financial Stability Report*, 2010, box 2, pp. 25–29.

48 Interest rate margins are approximated as net interest income divided by total credits.

49 SNB, *Financial Stability Report*, 2010.

50 FINMA, *Annual Report*, 2010.

51 According to the Wüest & Partner asking price index.

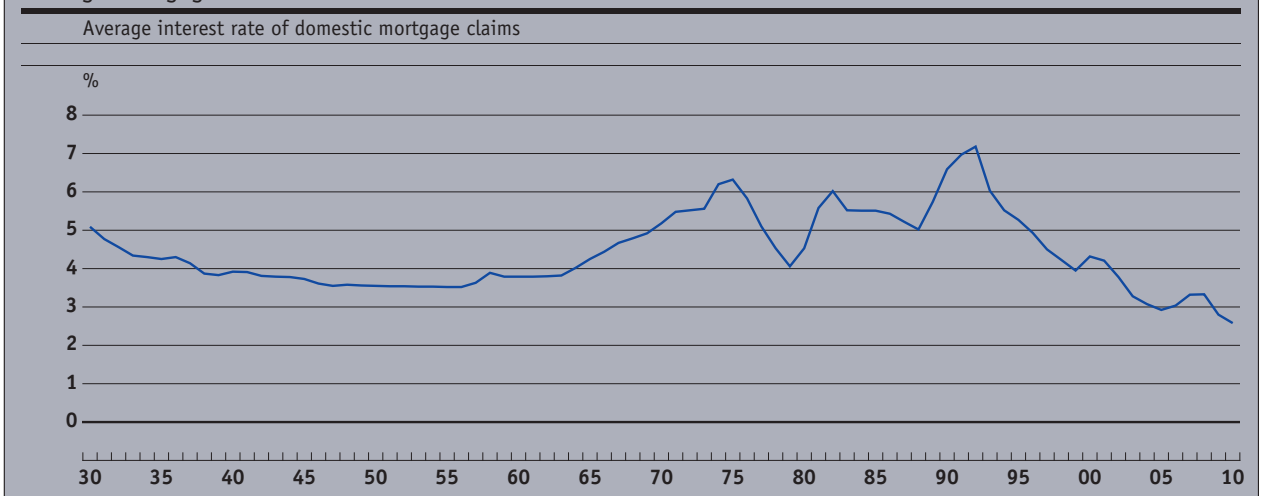
ments is relatively poor, particularly at regional level. Overall, these economically important regions make up over 30% of the total portfolio of residential property and house roughly 30% of the Swiss population. Consequently, price corrections in these regions could also have a nationwide impact.

Slightly smaller rise in mortgage volume

The increase in real estate prices is mirrored by a similar increase in mortgage volume. However, the strong momentum of mortgage volume growth observed in 2009 decelerated somewhat through 2010 and into the first quarter of 2011.

Nevertheless, the ratio of domestic mortgages to GDP is still above its long-term trend (cf. chart B4). In many countries – Switzerland included – this ratio has proved to be a reliable forward-looking indicator for banking crises.[52] For instance, the ratio of mortgage volume to GDP was significantly above its long-term trend towards the end of the 1980s, shortly before the onset of the last real estate crisis.[53]

Average mortgage rate — Chart B1



Development in Swiss residential real estate prices — Chart B2

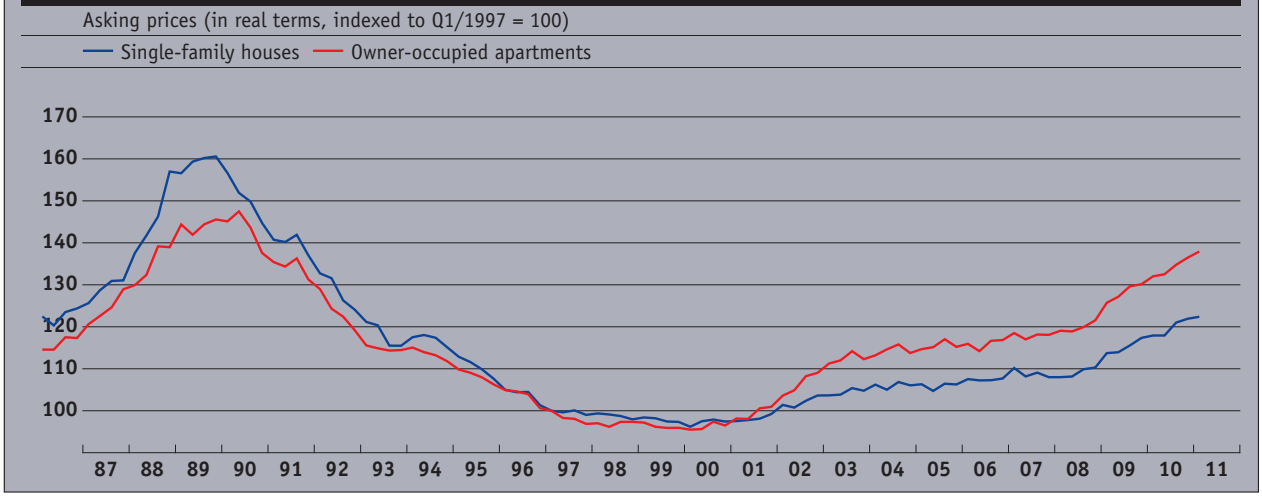


Chart B1: Source: SNB

Chart B2: Sources: SNB, Wüest & Partner

52 Borio and Drehmann (2009), BIS and IMF.

53 The extent of the deviation is strongly dependent on the methodology used to estimate the trend. However, the direction of the deviation, i.e. the observation that mortgage volume is currently in excess of its long-term trend, is robust to any change in methodology.

Medium-term risks to financial stability

Should real estate prices continue to grow at the current pace, risks to financial stability may arise in the medium term. Continued growth in real estate prices which is not accompanied by comparable growth in fundamentals makes significant price corrections in the future more likely. In addition, should a rise in mortgage volume coincide with a decline in affordability, the danger exists that defaults would rise significantly following a macroeconomic shock. For example, an increase in the interest rate could lead to a higher level of defaults and a fall in real estate prices. This combination could trigger considerable losses in the banking system.

Uncertainty about bank risk

The uncertainty about the risk carried by banks in the mortgage market remains high. In an effort to reduce this uncertainty, the SNB has been conducting a quarterly survey with the banks since the beginning of 2011. The survey covers the 25 largest banks that have a combined share of the domestic mortgage market of over 80%. The initial data will be available in the second half of this year. The survey focuses on recently extended mortgage loans, collecting data on two important risk indicators, loan-to-value ratio and loan-to-income ratio. This should allow a more reliable assessment of aggregate risk-taking in the domestic residential mortgage market and, consequently, of financial stability.

Policy measures

So far, policy measures adopted in Switzerland have focused on improving risk monitoring and communication. In the area of monitoring, the SNB has been conducting surveys aimed at enhancing the assessment of banks' risk-taking in the Swiss residential mortgage market. As regards communication, both the SNB and FINMA have repeatedly indicated their concerns about the build-up of risk in this sector, both publicly and in bilateral discussion with banks.[54]

In addition to these measures, FINMA has announced that it may impose temporary additional capital requirements on specific institutions, depending, in particular, on their credit growth or credit exposure in critical segments.[55] FINMA is also working with the Swiss Bankers Association to assess the extent to which the self-regulation guidelines for mortgage lending could be revised and made more specific.[56] The current guidelines are very general and strictly qualitative in nature. As such, they are unlikely to provide effective protection against the development of market-wide imbalances in the Swiss real estate and mortgage markets. In order to be effective, the revised guidelines would have to become more specific and include – or be complemented by – quantitative guidance aimed at preventing excessive risk-taking in this traditionally highly cyclical market.

Ideally, such measures will prevent the build-up of substantial medium-term risks to financial stability in the Swiss real estate and mortgage markets. Should such imbalances develop nonetheless, further policy measures would have to be considered.

As has been highlighted in particular by the Financial Stability Board (FSB)[57] and the IMF,[58] in such a situation countercyclical macroprudential policy instruments might prove useful. These include:

- **Countercyclical capital requirements.** These would impose a temporary increase in banks' capital requirements for lending activity during phases of market-wide excessive credit growth. Such an increase would act as a brake on lending activity and, hence, on credit-fuelled house price growth. At the same time, it would foster the build-up of capital buffers in the banking sector, thereby increasing the banking sector's resilience to shocks. In other words, an instrument of this kind would reduce both the risk of imbalances developing and the impact of a correction to any such imbalances.
- **Countercyclical central bank reserve requirements.** These are a variant of the countercyclical capital requirements. By imposing higher reserve requirements based on banks' loans or deposits during phases of excessive credit growth, they would act as a brake on lending activity. In contrast to capital requirements, reserve requirements do not have any direct impact on banks' loss-absorbing capacity.
- **Countercyclical caps on loan-to-value ratios.** These would impose quantitative limits on banks' main risk-taking capacity in the mortgage market. As in the case of the previous instruments, a dynamic cap on loan-to-value ratios, which would be tightened in phases of excessive house price growth, would act as a brake on credit-fuelled house price growth. To be more effective, it could be coupled with a limit on buyers' borrowing capacity (e.g. a loan-to-income cap). In contrast to capital requirements, such caps would not have a direct impact on banks' loss-absorbing capacity.

For the time being, no countercyclical macroprudential policy instrument is readily available to Swiss authorities. However, countercyclical capital requirements will be introduced in Switzerland as part of the implementation of Basel III.

Empirical evidence suggests that the use of macroprudential policy instruments raises a number of issues. Timing and calibration are two of the major challenges they pose. Furthermore, their use may entail costs for the economy. However, history provides us with ample evidence that the economic and social costs of distortions in the real estate and mortgage markets are enormous. Consequently, the costs related to the use of macroprudential instruments have to be balanced against the very substantial costs associated with such excesses.

54 Cf., in particular, SNB, *Financial Stability Report,* 2010, box 2, pp. 25–29.
55 FINMA, *Annual Report*, 2010.
56 Cf. www.swissbanking.ch/en/richtlinien_grundpf_kredite.pdf.
57 FSB, 'Macroprudential policy tools and frameworks, Update to G20 Finance Ministers and Central Bank Governors', February 2011.
58 Cf., in particular, IMF, *Policies for Macrofinancial Stability: Options to Deal with Real Estate Booms*, February 2011.

Conclusion

Interest rates in Switzerland have remained at an exceptionally low level for a prolonged period of time. This situation reflects, in particular, the SNB's monetary policy, the primary goal of which is to ensure price stability. In this environment, the risk of imbalances developing in the Swiss real estate and mortgage markets remains high.

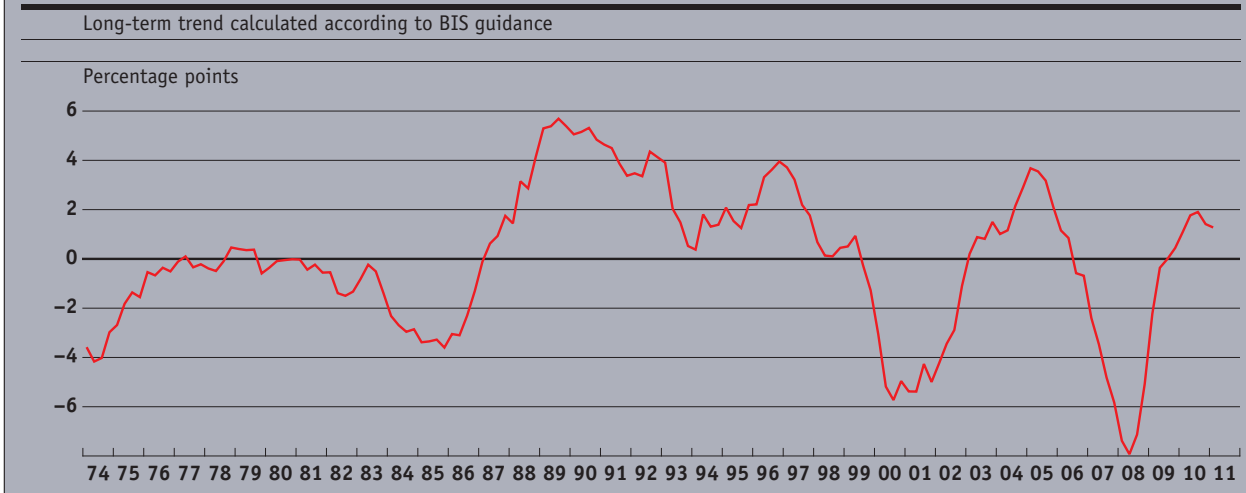
So far, signs of imbalances appear to be limited to some regions and segments of the residential housing market. Measures aimed at avoiding the emergence of widespread and large-scale excesses in the medium term might nonetheless have to be taken in the future.

Such measures include a substantial reform of the banking sector's self-regulation practices in mortgage lending. However, changes in the regulatory framework for the countercyclical policy instruments used by the Swiss authorities should also be considered.

Table B3: Growth in real estate prices from Q1/2000 to Q1/2011, according to different price indices (in percent, in real terms)

Provider	Price index	Single-family houses			Owner-occupied apartments		
		Lower	Middle	Upper	Lower	Middle	Upper
Wüest & Partner	Asking		27			44	
Wüest & Partner	Transaction (hedonic)	17	26	36	32	46	61
Fahrländer Partner	Transaction (hedonic)	43	35	48	51	51	61
IAZI/CIFI	Transaction (hedonic)		18			24	

Deviation of the domestic mortgage-to-GDP ratio from its long-term trend — Chart B4



Sources: BIS, SNB

4 Capital

The big banks report high levels of regulatory capital under Basel II by historical and by international standards. Compared to the previous year, they again improved their capital situation in terms of both the risk-weighted capital ratio and the leverage ratio. However, taking into account only the loss-absorbing capital – the only capital of relevance for overcoming a crisis – their capitalisation is significantly lower. The big banks need to further expand their loss-absorbing capital base, also in view of the forthcoming, enhanced capital requirements. Credit Suisse's issuance of contingent convertible capital[59] and UBS's decision not to pay a dividend for 2010 represent important first steps in this direction. In view of the big banks' continuing high leverage and the considerable risks in the economic environment, it is crucial that a sufficient base of loss-absorbing capital be laid down as soon as possible.

Overall, banks with a domestic focus are well capitalised and the quality of their capital is high. There are, however, considerable differences from one bank to another. Sound capitalisation is particularly important, primarily because of the high interest rate risk and – in the medium term – also because of the credit risk building up in the Swiss mortgage market. Banks with low capitalisation should therefore build up their capital buffer in order to be armed against potential future losses.

Big banks

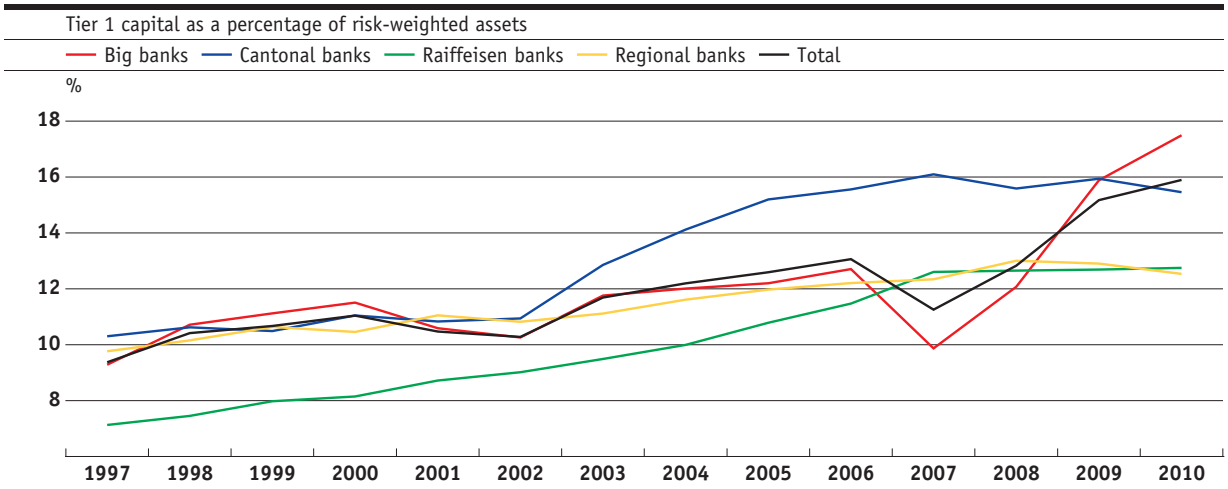
High risk-weighted capital ratios under Basel II

The big banks[60] were able to further increase their risk-weighted capital ratios (Tier 1 capital as a percentage of risk-weighted assets) in accordance with the currently applicable Basel II minimum standards. The ratios are well above the regulatory minimum[61] of 8%. At the end of 2010, UBS recorded a risk-weighted capital ratio of 17.8% (2009: 15.4%), and Credit Suisse one of 17.2% (2009: 16.3%). This improvement is due both to an increase in Tier 1 capital (from CHF 31.8 billion to CHF 35.3 billion in the case of UBS and from CHF 36.2 billion to CHF 37.7 billion in the case of Credit Suisse) and to a decline in risk-weighted assets. The risk-weighted assets decreased primarily because of the depreciation of various major currencies and not because risks were actively reduced (cf. chapter 3).[62]

Both by historical (cf. chart 14) and by international standards (cf. chart 16, horizontal axis), the big banks have very high risk-weighted capital ratios under Basel II. In this respect, UBS and Credit Suisse rank top among the major internationally active big banks.

However, this decidedly positive picture must be put into perspective by considering two further aspects. First, a significant portion of the regulatory capital under Basel II is only partially loss-absorbing.[63] And second, the leverage of Switzerland's two big banks remains high, leaving correspondingly little margin for error in the assessment of risk.

Risk-weighted capital ratios — Chart 14



Sources: FINMA, SNB, annual reports

59 Credit Suisse has issued contingent convertible capital in the form of contingent convertible bonds (CoCos). CoCos are bonds that, under certain circumstances, are automatically converted into capital.
60 To ensure comparability with their peers, the big banks' risk-weighted assets are reported in accordance with BIS standards.
61 The BIS international minimum requirements are currently (i.e. under Basel II) 4% Tier 1 capital as a percentage of risk-weighted assets and 8% Total Capital (i.e. including Tier 2 and Tier 3) as a percentage of risk-weighted assets. At the end of 2008 (with transition periods up to the end of 2012), the Swiss Federal Banking Commission (SFBC) doubled these minimum requirements within the scope of Pillar 2 (cf. SFBC media release of 4 December 2008).
62 The depreciation of several important currencies led to a reduction in risk-weighted assets but also in Tier 1 capital, albeit to a much lesser extent (UBS, *Annual Report*, 2010, p. 156; Credit Suisse, *Annual Report*, 2010, pp. 103, 104).

Regulatory capital only partially loss-absorbing

Tier 1 capital as defined by regulations is not fully loss-absorbing (cf. box 3). This means, first, that it includes debt-like instruments (hybrid Tier 1 capital instruments) which would become loss-absorbing only in the case of bankruptcy, and, second, that it is not fully adjusted for assets without intrinsic value (such as deferred tax assets). In other words, it would not be possible to use the entire stock of regulatory capital to stabilise a bank in the event of a crisis.

Under Basel III, a new category of capital is introduced – Common Equity Tier 1 (CET1). CET1 is aimed at remedying the above-mentioned shortcomings to a great extent and thereby providing a more accurate picture of the true level of loss-absorbing capital. CET1 is thus the capital category with the highest quality.

It is distinguished from Basel II Tier 1 capital primarily by the fact that hybrid Tier 1 capital instruments, deferred tax assets, prepaid pension fund expenses and holdings in financial institutions are deducted. A BIS study on the impact of Basel III shows that the first two elements here are especially relevant.[64]

Basel III will have a considerable impact. Estimates by market observers, by the big banks themselves and by the SNB show that the big banks' regulatory capital would be significantly reduced if Basel III were already in force today.[65] The two most important elements – hybrid Tier 1 capital instruments and deferred tax assets – add up to around CHF 15 billion on average at each of the two big banks.

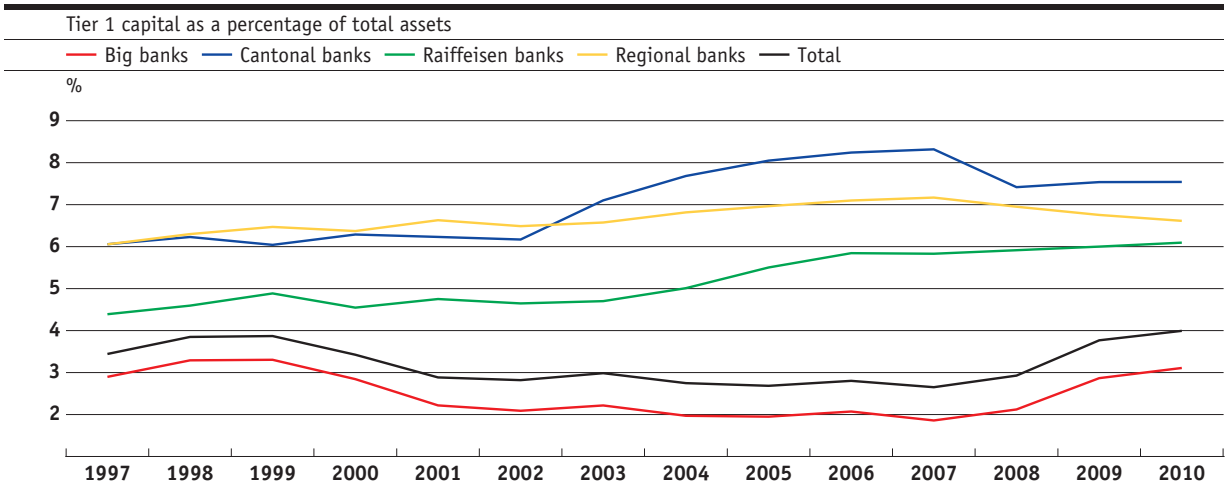
High leverage by international standards

The second aspect that puts the high risk-weighted capital ratios of the big banks into perspective is their continuing high degree of leverage. Two leverage indicators are considered: (1) Tier 1 capital as a percentage of total assets, and (2) Tier 1 capital as a percentage of adjusted[66] total assets – referred to as the FINMA leverage ratio. Both of these indicators abstract from the varying risk levels associated with the individual asset items on the balance sheet. Minimum regulatory requirements exist only for the second indicator.[67] Under Basel III (cf. box 4), an internationally applicable leverage ratio, is to be introduced taking into account both on and off-balance-sheet items.

Compared to the end of 2009, leverage for both banks decreased slightly. Tier 1 capital as a percentage of total assets rose from 2.4% to 2.7% in the case of UBS, and from 3.5% to 3.7% in the case of Credit Suisse. Given that the two big banks work with different accounting standards, their ratios cannot be directly compared. UBS uses IFRS, Credit Suisse applies US GAAP. Total assets, when reporting under IFRS, are higher than when reporting under US GAAP, in particular because of the way replacement values are recognised. Reporting under IFRS therefore results in a lower ratio. Adjusted for replacement values, both big banks have similar leverage ratios. By international standards, however, the ratios of Switzerland's two big banks remain below average (cf. chart 16, vertical axis).

Their FINMA leverage ratios also rose in comparison to the end of 2009. At the end of 2010, UBS's FINMA leverage ratio amounted to 4.5% (2009: 3.9%), Credit Suisse's to 4.4% (4.2%). As of

Capital-to-assets ratios — Chart 15



Sources: FINMA, SNB, annual reports

63 FINMA also draws attention to this point: "So our large banks do indeed have above the international average levels of capital today, but with lower than the average quality." (Branson, Mark, 'The case for more and higher quality capital', FINMA annual media conference, 22 March 2011).
64 Basel Committee on Banking Supervision, *Results of the comprehensive quantitative impact study,* December 2010.
65 In its *Annual Report* for 2010, UBS writes: "As a result, our common equity ratio would be materially lower than our current BIS Tier 1 ratio, if Basel III requirements were effective immediately" (p. 155).
66 With the FINMA leverage ratio, total assets are adjusted for various factors. The two most important ones are domestic lending business and netting of replacement values. As a result, the adjusted total assets are lower and the actual leverage is thus underestimated.
67 To limit leverage, the SFBC introduced minimum requirements for the big banks with transition periods up to the end of 2012 (cf. SFBC media release of 4 December 2008).

2013, FINMA expects leverage ratios of at least 5% in good times, i.e. when banks post profits. In bad times, ratios may temporarily decline, but no lower than 3%. The FINMA leverage ratio is based on adjusted total assets and can therefore be used for comparing UBS and Credit Suisse.

Further increase in loss-absorbing capital needed

In order to meet the forthcoming, enhanced national and international capital requirements, capitalisation needs to be improved, i.e. loss-absorbing capital has to be increased further or risk-weighted assets need to be reduced. The banks have already taken initial steps in this direction. UBS, for example, did not pay any dividends for 2010, despite reporting a profit of CHF 7.5 billion. This has enabled the bank to substantially increase its loss-absorbing capital. Moreover, UBS intends to pay no more than a minimum dividend until it has fulfilled the new capital requirements. Credit Suisse has markedly improved its capital base through the issuance of about CHF 2 billion in contingent convertible bonds. In addition to this public placement, Credit Suisse has concluded an arrangement with a private investor by which existing hybrid Tier 1 capital instruments amounting to approximately CHF 6 billion are to be exchanged against contingent convertible capital in 2013. It has thereby already attained around two-thirds of the high-trigger contingent convertible capital that will be required in future under the 'too big to fail' regulations.[68]

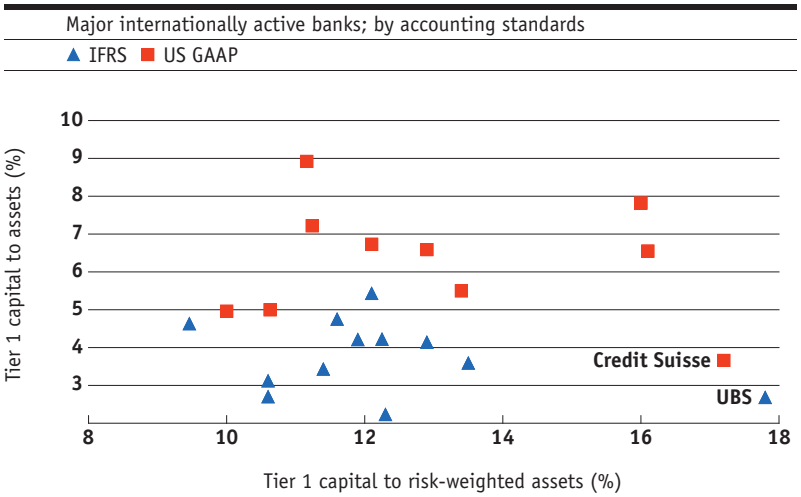
This accumulation of loss-absorbing capital needs to be continued by both big banks. Long transition periods have been granted for building up capital. They are aimed at ensuring that the big banks can meet the forthcoming, enhanced capital requirements primarily by retaining profits and by improving their hybrid Tier 1 capital. Despite generous transition periods, the big banks should build up an adequate base of loss-absorbing capital as swiftly as possible.[69] Risks in the economic environment remain considerable and, in relation to past losses, the big banks' loss-absorbing capital buffers are still thin. For instance, the overall loss suffered by UBS in the recent crisis[70] was equivalent to 2.3% of total assets. This is significantly higher than both big banks' loss-absorbing capital, which amounted to less than 2% of total assets at the end of 2010.[71] In other words, leverage based on loss-absorbing capital remains high, at over 50. Hence, the consequences of any misjudgement of risk would be correspondingly severe.

Banks with a domestic focus

On aggregate, the capitalisation of domestically focused banks hardly changed in 2010 and remains good in relation to both risk-weighted assets and total assets. At the end of 2010, the risk-weighted capital ratio (Tier 1 capital as a percentage of risk-weighted assets; cf. chart 14) amounted to 15.5%[72] for cantonal banks (2009: 15.9%), 12.5% for regional banks (2009: 12.9%), and 12.7% for Raiffeisen banks (2009: 12.7%). Tier 1 capital as a percentage of total assets (cf. chart 15) came to 7.5% for cantonal banks (2009: 7.5%), 6.6% for regional banks (2009: 6.8%), and 6.1%

International comparison of capital ratios — Chart 16

Major internationally active banks; by accounting standards



Sources: 2010 annual reports

68 The high-trigger contingent convertible capital can be counted as buffer capital up to a maximum of 3%. Depending on assumptions with regard to future risk-weighted assets, this results in high-trigger contingent convertible capital ranging from CHF 10.5 billion (risk-weighted assets of CHF 350 billion) to CHF 12 billion (risk-weighted assets of CHF 400 billion).

69 FINMA has arrived at the same conclusion. It regards the lack of loss-absorbing capacity of some of the capital components as one of the main issues where action needs to be taken, and is calling for the big banks to increase their loss-absorbing capital as swiftly as possible (Branson, Mark, 'The case for more and higher quality capital', FINMA annual media conference, 22 March 2011, pp. 2, 3).

70 During the recent crisis, from mid-2007 to the third quarter of 2009, UBS posted an overall loss of CHF 43 billion, of which CHF 26 billion was reported in 2008. At that time, average total assets amounted to around CHF 1,850 billion.

71 Excluding hybrid Tier 1 capital instruments and deferred tax assets, the Tier 1 capital of the two big banks amounted to about CHF 20 billion each, with average total assets of CHF 1,175 billion.

for Raiffeisen banks (2009: 6.0%) at the end of 2010.

The high risk-weighted capital ratios of banks with a domestic focus need to be put into perspective on three counts. First, risk-weighted capital requirements are only a rough measure of the underlying risks. Second, there are major differences in capitalisation from one bank to another. And third, FINMA recently announced the introduction of new and higher Pillar 2 capital requirements for non-systemically important banks.[73]

Regarding the first point, the regulatory capital requirements represent only an incomplete measure of the underlying risks. For instance, direct interest rate risk in the banking book is not systematically taken into account,[74] and changes in credit risk are only partially accounted for. An increase in risk resulting from a dynamic adjustment of loan-to-value ratios during phases of excessive real estate price growth or a deterioration in the average creditworthiness of a bank's borrowers would not, for example, automatically lead to an increase in capital requirements. In the current situation, characterised by low interest rates, strong growth in mortgage lending and regionally overheated real estate markets, the size of the risks that are insufficiently captured could be particularly large and may have increased over the past few years. Thus the capital situation may have deteriorated from an economic perspective despite stable regulatory capital ratios.

Regarding the second point, it must be borne in mind when considering the high average risk-weighted capital ratios that there is considerable variation among the individual banks (cf. table 1). In terms of capitalisation, the 10th percentile of domestically focused banks[75] has a risk-weighted capital ratio of less than 11.4%. The average, by comparison, is 14%. However, all the banks meet the current regulatory minimum.

Regarding the third point, some banks will have to improve their capital situation in the next few years so as to comply with FINMA's recently announced Pillar 2 capital requirements for non-systemically important banks (cf. box 4). However, although these rules will enter into force in Switzerland in July 2011, the banks have been granted a long transition period, with the requirements needing to be met by the end of 2016 at the latest.

The increased requirements regarding the quality of capital, which are to be introduced under Basel III and will lead to high demand for capital at the big banks, should not pose much of a challenge for banks with a domestic focus. This is primarily because these banks have hardly any hybrid Tier 1 capital and have not, over the past few years, posted any major losses that could have led to deferred tax assets.

Need for thinly capitalised banks to increase their buffers

Banks with a considerable market share in the domestic mortgage market combine a high exposure to interest rate risk with strong growth in mortgage lending (cf. chapter 3 and box 2). Moreover, some of these banks operate in regions showing signs of overheated real estate markets. For these banks, rigorous microprudential supervision is especially important, in order to ensure that they build up sufficient capital reserves to cover the risks assumed.

Table 1: Distribution of capital ratios among domestically focused banks

	Tier 1/ risk-weighted assets	Tier 1/ total assets
Weighted average	**14.0%**	**6.9%**
Minimum	**7.1%**	**3.8%**
Maximum	**35.8%**	**15.2%**
10% quantile	**11.4%**	**6.1%**
90% quantile	**21.6%**	**11.2%**

Sources: FINMA, SNB

72 Cantonal banks whose non-subordinated liabilities are fully guaranteed by the relevant canton benefit from reduced capital requirements up to the end of 2011. If this reduction is disregarded, their risk-weighted capital ratio amounts to 14.4% instead of 15.5%.
73 FINMA circular 2011/2, *Eigenmittelpuffer und Kapitalplanung bei Banken* (banks' capital buffers and capital planning).
74 Interest rate risk in the trading book is recognised under Pillar 1 of Basel II. Interest rate risk in the banking book is generally recognised under Pillar 2; however, only if it exceeds 20% of total regulatory capital.

75 These banks account for a 14% share of aggregated total assets of domestically focused banks.

Box 3. Regulatory and loss-absorbing capital

This box explains why not all regulatory capital is also loss-absorbing capital. The following three questions will be answered: How is regulatory capital calculated? Why is not all regulatory capital currently also loss-absorbing capital? How will regulatory capital be defined in the future?

How is regulatory capital calculated?

In principle, a bank's capital is calculated – just like that of any other company – as the difference between assets and debt. However, neither assets (with intrinsic value) nor debt are clearly defined. On the one hand, assets must be adjusted by eliminating those positions that have no intrinsic value (e.g. deferred tax assets). On the other, there are certain forms of capital that cannot be clearly allocated to equity capital or debt since they have characteristics of both. These 'hybrid' capital instruments lie in the grey area between equity capital and debt.

Why is not all regulatory capital currently also loss-absorbing capital?

Under Basel II, regulatory capital is not fully loss-absorbing. This is because the asset adjustment applied to positions that have no intrinsic value is insufficient, and because hybrid capital instruments – which have proved to be loss-absorbing only in the event of bankruptcy – are assigned to regulatory capital.

Already today, assets are adjusted to a certain extent for the calculation of Tier 1 regulatory capital under Basel II. For example, goodwill and intangibles are deducted. However, these deductions are insufficient. For instance, deferred tax assets, which are only realised if a bank is profitable, can be counted towards Tier 1 capital. If, however, the bank reports a loss, these deferred tax assets cannot be realised. As such, deferred tax assets do not constitute capital that can be used to absorb losses in a crisis.

In addition, at present, some hybrid Tier 1 capital instruments, which only become fully loss-absorbing in the event of bankruptcy, can be counted towards the calculation of Tier 1 regulatory capital. Thus, in a crisis situation, they can only be used to a very limited extent to alleviate the situation: banks can cancel the coupon payments on such instruments. Yet in the recent crisis banks made virtually no use of this possibility, for fear of sending a negative signal.

These limitations do not apply to the contingent capital instruments eligible under the proposed Swiss 'too big to fail' regulations (contingent convertible bonds or contingent capital instruments with write-off features). Although they, too, are a mix of debt and equity capital, they already help to stabilise a bank before bankruptcy, for two reasons: first, conversion or write-off takes place automatically when the capital ratio falls below a certain level, and not at the bank's discretion. Second, equity capital is increased by the entire amount outstanding, and not merely by the coupon payment, as is the case with existing hybrid Tier 1 instruments when coupon payments are cancelled.

Overall, the insufficient deductions from assets and the over-generous inclusion of hybrid Tier 1 capital instruments under Basel II imply that regulatory capital is higher than economically loss-absorbing capital. This discrepancy became clearly evident during the most recent crisis: even banks with high Tier 1 capital ratios got into difficulty and had to seek state support. The market and the authorities therefore turned increasingly to estimates of loss-absorbing capital in order to assess a bank's solvency.

How will regulatory capital be defined in the future?

The definition of regulatory capital is being discussed in international forums, and a new category of capital has been created under Basel III: Common Equity Tier 1 (CET1). In addition to CET1, Basel III also retains the categories Tier 1, Tier 2 and Total Capital, and sets requirements governing them.[76] The definition of the new CET1 category is much narrower than that of Tier 1 capital under Basel II. In future, those components that cannot be used to alleviate a crisis situation must be deducted from CET1. Under this new definition, regulatory capital (CET1) is a better indicator of a bank's ability to absorb losses.[77] The transition period for implementing Basel III will run from 2013 to 2019. The new deductions from assets and the enhanced requirements for eligible hybrid Tier 1 capital instruments will also be introduced gradually. Consequently, until the end of the transition period, CET1 will itself remain an insufficient indicator with which to measure the size of losses that banks are able to absorb.[78]

76 Tier 1 capital comprises CET1 plus Additional Tier 1, which also features improvements over Basel II. For example, in future, all hybrid Tier 1 capital instruments will have to include a clause stipulating that the supervisory authority can forcibly convert them to CET1 in the event of state intervention or in order to avoid such an intervention (non-viability clause).

77 As described above, the contingent capital instruments under the proposed Swiss 'too big to fail' regulations have a higher loss-absorbing capacity than conventional hybrid Tier 1 capital instruments. Yet they are not counted as CET1, but only as Additional Tier 1 or Tier 2 capital.

78 With the introduction of Basel III, eligible regulatory capital could even increase temporarily – despite the enhanced regulations – as such capital need only be fully adjusted from 2019 onwards. In other words, in 2013, reported CET1 could be considerably higher than economically loss-absorbing capital, as very few adjustments will need to be made at that stage.

Box 4. Regulatory changes

In the wake of the financial crisis, national and international regulations have been amended. The most important changes are summarised below.

International regulations

Revisions to the Basel II market risk framework:

The latest financial crisis revealed that major risks in the trading book and in securitisation have not been adequately captured. Therefore, by revising the Basel II market risk framework, the capital requirements for securitisation and trading activities were enhanced and the procyclicality of the capital requirements for market risk arising from trading activities was reduced.

The market risk revisions, which were introduced in Switzerland at the beginning of 2011, primarily relate to the big banks.[79] According to FINMA estimates, the big banks' required capital will increase by approximately 20–30% as a result of these amendments.[80]

Basel III:

Basel III will substantially enhance the capital requirements and will be phased in between 2013 and 2019.

The main focus is on higher minimum standards, a leverage ratio to limit the excessive build-up of leverage and enhanced requirements regarding the quality of regulatory capital. The new Common Equity Tier 1 (CET1) capital requirement consists of a minimum requirement of 4.5%, plus a capital conservation buffer of 2.5% to absorb losses during periods of stress. Moreover, the capital requirement with regard to Tier 1 and Total Capital is 8.5% and 10.5% respectively. On top of this, a countercyclical buffer of 2.5% of CET1 can be implemented depending on national circumstances in order to protect the banks from the risks of excessive credit growth. Furthermore, there are plans to supplement the Basel III capital requirements with a surcharge for systemically important banks (cf. section 'Surcharge for systemically important banks' below).

In addition, Basel III will further increase risk-weighted assets, in particular with respect to derivatives and counterparty risk. FINMA estimates that this will result in a further rise in required capital of roughly one-third.[81]

Surcharge for systemically important banks:

In November 2010, the G20 approved the recommendations made by the Financial Stability Board (FSB) regarding systemically important financial institutions, or SIFIs. Key aspects of these recommendations are the identification of SIFIs and additional requirements as regards their loss-absorbing capacity. The FSB and the Basel Committee are currently discussing ways to achieve higher loss-absorbing capacity (e.g. through CET1 or contingent capital instruments)[82] and the level of such surcharges. A decision is expected before the end of 2011.

National regulations

Pillar 2 requirements for non-systemically important banks:

Pillar 2 refers to requirements imposed by a national supervisory authority that go beyond the international minimum requirements (currently Basel II; as from 2013, Basel III). In Switzerland, FINMA has specified these Pillar 2 requirements. They aim at creating differentiated capital requirements, thus capturing the complexity and risk structure of the institutions more accurately. To this purpose, the institutions are assigned to different capital requirement categories. The new regulation enters into force on 1 July 2011, with a transition period until the end of 2016. Work regarding the implementation of Basel III at national level is also being carried out. In this respect, FINMA plans to publish for consultation a draft of the amended Capital Adequacy Ordinance in autumn 2011.

'Too big to fail' regulation:

In October 2010, a commission of experts appointed by the Federal Council submitted its recommendations for the regulation of systemically important banks. The recommendations focus on capital requirements and measures with regard to liquidity, organisation and risk diversification. The capital requirements are divided into three components: (i) the minimum requirement, which equals the Basel minimum of 4.5% CET1; (ii) the buffer, which exceeds the capital conservation buffer under Basel III and is set at 8.5%, of which 5.5% must be held as CET1 and up to 3% may be held as contingent capital instruments; and, additionally, (iii) a progressive component, whose level rises with the size of the bank and its domestic market share. At the banks' current size, the progressive component amounts to 6%. In general, the banks must hold the progressive component in the form of contingent capital instruments. In December 2010, the Federal Council submitted for consultation legislative proposals regarding the partial revision of the Banking Act. They set out the recommendations by the commission of experts in more detail. The proposals will be discussed by the Council of States in its summer session and by the National Council in its autumn session.

79 At international level, the market risk revisions enter into force at the beginning of 2012. To ensure international comparability, the big banks will continue to report figures according to Basel II in their 2011 annual and quarterly reports.
80 Branson, Mark, 'The case for more and higher quality capital', FINMA annual media conference, 22 March 2011.
81 Ibid.
82 Contingent convertible bonds or contingent capital instruments with write-off features.

5 Market assessment

Financial market data provide information about the general assessment of banks' future profitability and creditworthiness. Market indicators, however, typically react swiftly to new information and as a result, can become highly volatile. Because of this volatility, forecasts of profitability and creditworthiness based on market indicators can often be unreliable.

Big banks' shares perform modestly

A bank's share price represents the current value of its expected future profits. Consequently, share price movements provide insights into changes in the market assessment of profit potential.

Chart 17 shows the big banks' share prices and the average level of the MSCI bank indices for Europe and the US (MSCI average) indexed as at 2 May 2007. The chart reveals how prices fell sharply during the recent financial crisis, as market participants adjusted their profit expectations downwards. Between May 2007 and March 2009, the shares of Credit Suisse and UBS each lost more than 70% of their value. Over this period, the performance of Credit Suisse's shares was slightly above the MSCI average, while that of UBS's was below. From March 2009, a recovery in share prices took hold, during which Credit Suisse's market value more than doubled. UBS's share price, however, remained below the MSCI average. The recovery in share prices was short-lived, coming to a halt already in October 2009. Since then, UBS's share price and the MSCI average have remained largely unchanged, while Credit Suisse's share price has fallen to the level of the latter.

Higher share prices for banks with a domestic focus

Share prices of domestically focused banks reflect a confident assessment of their profit potential, despite the prevailing narrow interest margins and elevated credit and interest rate risk. Chart 17 shows the indexed, unweighted average of the share prices of all banks with a domestic focus that are quoted on the Swiss stock exchange. These banks account for around 35% of the total assets of domestically focused banks. The share prices of banks with a domestic focus declined by an average of about 10% between May 2007 and March 2009. But since then they have recovered, and currently average a good 10% higher than their pre-crisis level.

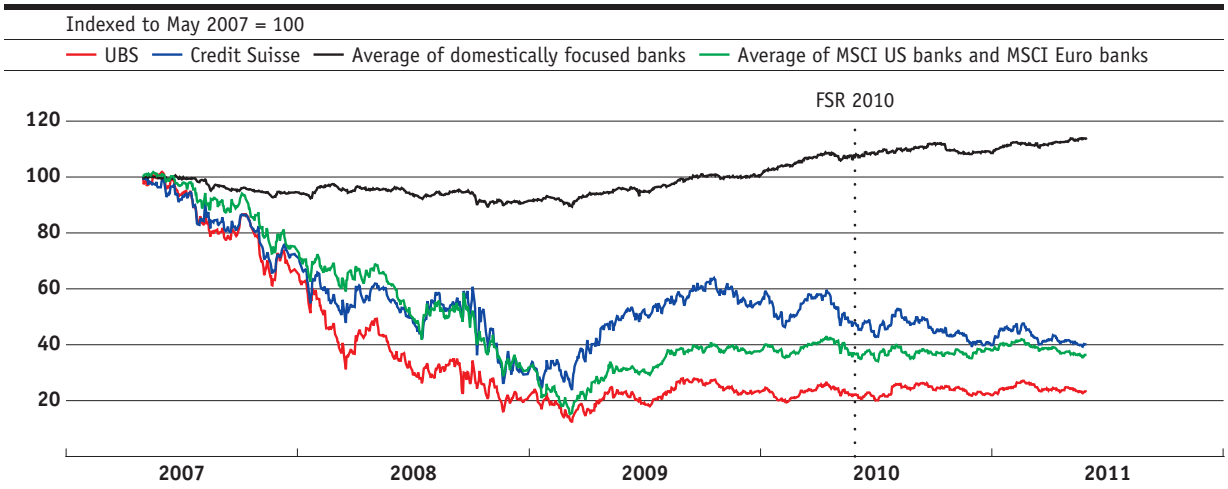
Bond spreads narrow and CDS premia decline at big banks

Bond spreads and CDS premia provide clues as to the market assessment of banks' creditworthiness. The worse a bank's creditworthiness, the wider its bond spreads and the higher its CDS premia. However, because the market assessment includes expectations relating to possible government assistance in a crisis, these indicators of banks' creditworthiness may be distorted.

The bond spreads of the two big banks have again narrowed sharply, and their CDS premia decreased considerably, since the peak values recorded during the recent financial crisis. Nevertheless, CDS premia, in particular, are still elevated by historical standards.

Chart 18 shows the path of Credit Suisse and UBS bond spreads. These reached a historical peak

Share prices — Chart 17



Source: Bloomberg

in February 2009, at which time UBS's situation was judged by market participants as being especially critical. Since then, the bond spreads of both big banks have again narrowed markedly. While UBS's bond spreads have since narrowed almost to their pre-crisis levels, those of Credit Suisse, at around 100 basis points, are still significantly wider.

The big banks' CDS premia are shown in chart 19. These also peaked in February 2009. At that time, UBS's situation was again assessed as especially critical: its CDS premia reached levels in excess of 300 basis points and thereby surpassed the average of the largest banks worldwide by more than 100 basis points.[83] Thereafter the CDS premia of the big banks dropped quite considerably, and UBS's premia once more approached the international average. Following another temporary increase in the first two quarters of 2010, the CDS premia of both big banks are now well below the international average, and are also far lower than their recent peak values. Nevertheless, their current values are comparable with those of April 2008, shortly before the takeover of the failed investment bank Bear Stearns.

Bond spreads of domestically focused banks still narrow

The bond spreads of domestically focused banks are still narrow, which reflects the market's favourable view of their creditworthiness. Bond spreads are available for 22 banks with a domestic focus. These banks account for 86% of the total assets of domestically focused banks. As chart 18 shows, the average bond spread for these banks has remained under 100 basis points for the entire period since 1998.

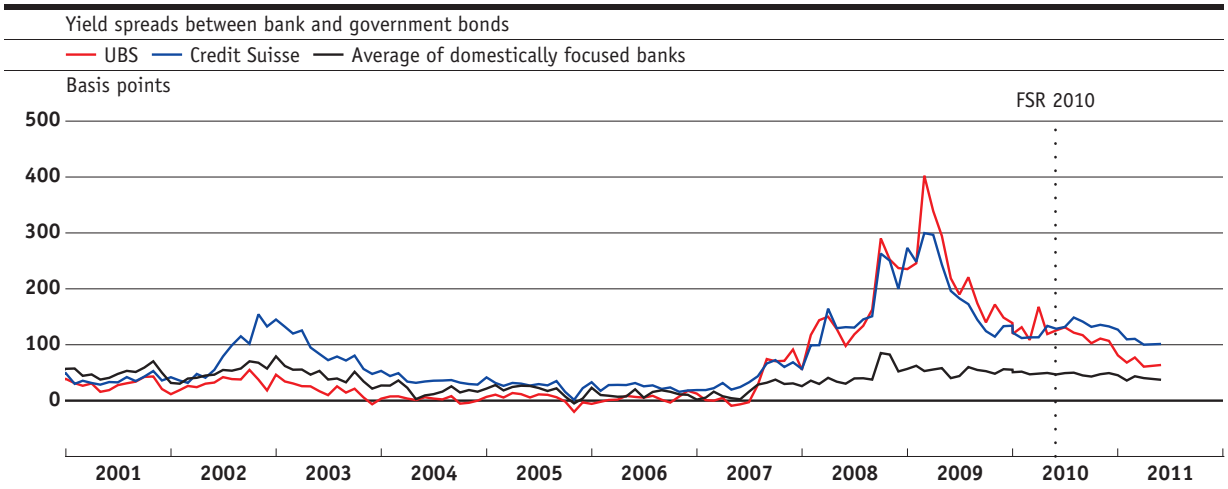
Credit ratings

Rating agency assessments also shed light on the general assessment of the banks' soundness. Especially interesting are 'bank financial strength ratings' and 'bank individual ratings' (collectively: FS ratings), which exclude the prospect of third-party assistance in crises. These are based solely on the banks' intrinsic financial strength, and therefore, unlike long-term credit ratings, do not take into account the possibility of third-party assistance, such as state guarantees. A state guarantee can be explicitly laid down by law, as is the case with some cantonal banks, or it can be implicit, relying on the assumption that, in a crisis, the state will be compelled to rescue the bank in question because of its size and position in the market. The cost of the explicit state guarantees extended to cantonal banks is – at least in part – compensated by these banks. Implicit guarantees, by contrast, are free of charge for the banks concerned – if not for the taxpayer.

The long-term credit ratings of both big banks remained stable last year, with both maintaining good investment grade ratings. Credit Suisse's ratings were unchanged at Aa1 from Moody's, AA– from Fitch, and A+ from S&P. UBS's credit ratings also stayed the same, at Aa3 from Moody's, A+ from Fitch, and A+ from S&P.

According to the FS ratings shown in charts 20 (Moody's assessment) and 21 (Fitch's assessment), the assessment of the intrinsic financial soundness of UBS and Credit Suisse has improved significantly.

Bond spreads — Chart 18



Sources: SNB, Thomson Datastream

83 The sample comprises 32 big banks (including Credit Suisse and UBS) in Europe, the US and Japan.

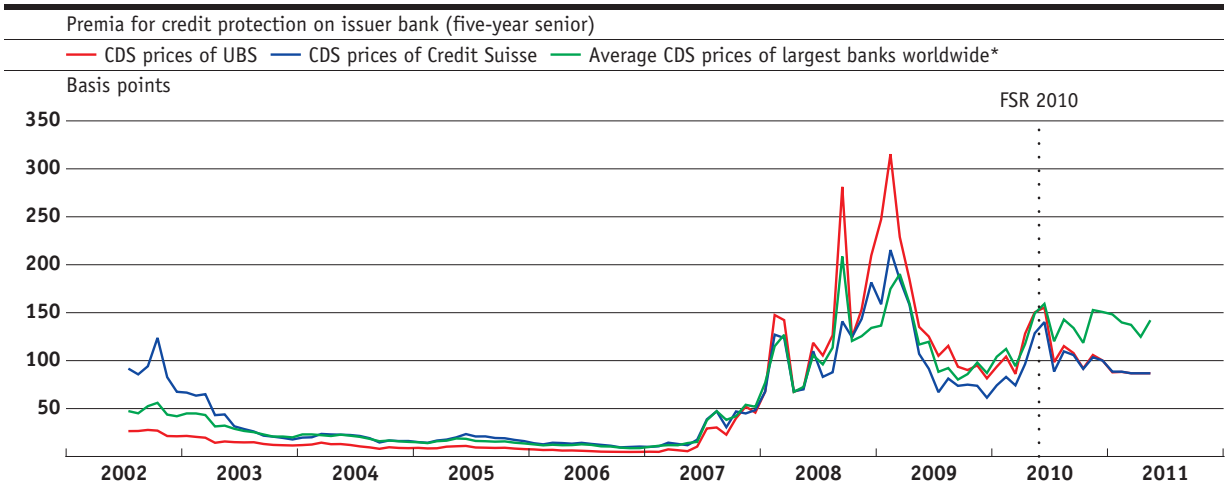
While Moody's ratings of the big banks has remained unchanged, Fitch has upgraded its FS rating of Credit Suisse by one notch over the previous year, and that of UBS by two notches. Thus with regard to intrinsic financial strength, both agencies rate Credit Suisse and UBS as 'strong' and 'adequate' respectively. This development is especially worth noting given that, during the same time period, the trend has been for the FS ratings of other international big banks to deteriorate. This is represented on the charts by the grey shading between the 25% and 75% percentile lines, derived from a sample of major banks worldwide.[84] The intrinsic financial strength of Credit Suisse, in particular, is regarded by both rating agencies as robust in comparison with most other international big banks.

Despite these gains in intrinsic financial strength, the favourable credit ratings of both big banks still rest upon the assumption of an implicit state guarantee. If market participants were to disregard this state guarantee, the big banks' credit ratings would suffer significantly, and their financing costs go up accordingly. In the absence of the guarantee, Moody's long-term credit rating for Credit Suisse would be two notches lower, and for UBS, three notches lower.

Overall, domestically focused banks have sound long-term credit ratings and adequate FS ratings. Table 2 shows the six banks with a domestic focus to which Moody's assigns long-term credit and FS ratings. These six institutions make up roughly 50% of the total assets of domestically focused banks. Their long-term credit ratings range from 'above-average' (A3) to 'highest quality' (Aaa) investment grade ratings, and their FS ratings from 'adequate' (C–) to 'strong' (B).

Table 2 highlights, however, that the favourable long-term credit ratings of domestically focused banks are also – at least in part – based on expectations of third-party assistance. In this context, the particular importance of an explicit state guarantee, which some cantonal banks have, is not surprising. In its absence, the St. Galler Kantonalbank's long-term credit rating would fall by four notches, and that of the Zurich Cantonal Bank by as many as five. Interestingly, Moody's also assumes that some of the domestically focused banks can rely on state or other third-party assistance in the event of a crisis, even in the absence of an explicit guarantee, due to their size or interconnectedness in the regional market. In the absence of this assumption, the long-term credit ratings of Banque Cantonale Vaudoise, Valiant Bank and Raiffeisen Switzerland, for instance, would all be reduced by between one and four notches, with a corresponding hike in financing costs.

Credit default swap premia — Chart 19



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

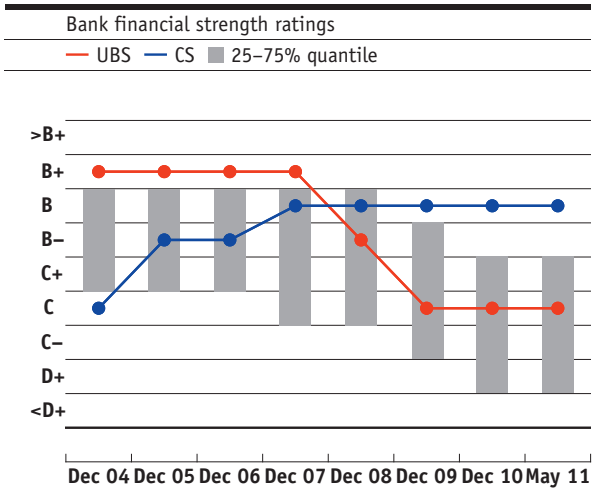
84 The sample comprises major banks in North America, Japan and Europe. In the absence of an FS rating, a bank holding company is allocated the rating of its largest affiliate.

Table 2: Importance of third-party assistance for domestically focused banks

	Long-term credit rating	FS rating	Rating difference in absence of third-party assistance	Explicit state guarantee
St. Galler Kantonalbank	Aa1	C+	–4	Yes
Zurich Cantonal Bank	Aaa	C+	–5	Yes
Banque Cantonale Vaudoise	A1	C–	–3	No
Clientis AG	A3	C	0	No
Raiffeisen Switzerland	Aa1	B*	–2	No
Valiant Bank	A1	C+	–1	No

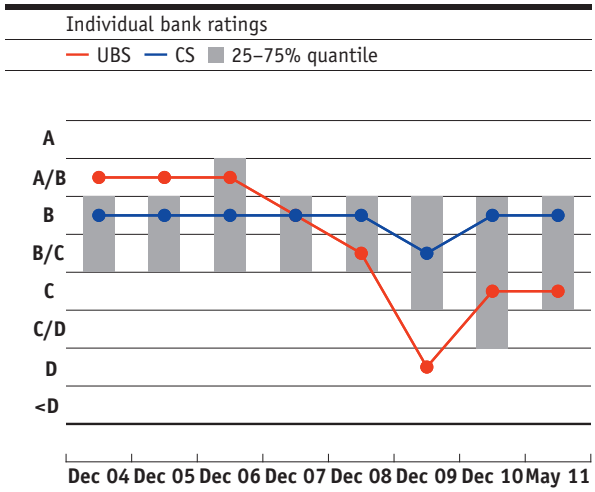
Source: Moody's
* FS rating for the Raiffeisen Group.

Moody's FS ratings* Chart 20



Source: Moody's

Fitch FS ratings* Chart 21



Source: FitchRating
* The sample comprises major banks in North America, Japan and Europe. In the absence of an FS rating, a bank holding company is allocated the rating of its largest affiliate.

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