UBS

CIO WM Research

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Swiss real estate market

UBS Swiss Real Estate Bubble Index - 2Q 2013

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- The *UBS Swiss Real Estate Bubble Index* rises from 1.17 to 1.20. The risks have again increased.
- The trend toward the Index leveling off is confirmed. The probability of a speculative real estate bubble has fallen as a result.
- Regional risks are increasing in medium-sized centers and peripheral agglomerations. Recent entrants to the group of monitoring regions include Locarno, Mutschellen, Winterthur and the Zurich Oberland and Unterland.

The *UBS Swiss Real Estate Bubble Index* currently stands at 1.20, representing an increase of 0.03 index points compared to the previous quarter. We have observed a clear leveling off in its performance in recent quarters.

Unlike in the 1980s, the index is not showing any signs of acceleration. The probability of a speculative real estate bubble has fallen as a result. The market is nevertheless at the peak of a price cycle that has lasted almost 15 years now. In the absence of a sustained phase of weakness, the risk of a price bubble is likely to increase again in the coming quarters.

The mortgage volume increased 4.3% year on year, or CHF 29bn. On the other hand, disposable household income rose only 1.4% or around CHF 5 billion. The increase in total debt is accompanied by a rise in the risks for the economy in the event of a sharp increase in interest rates.

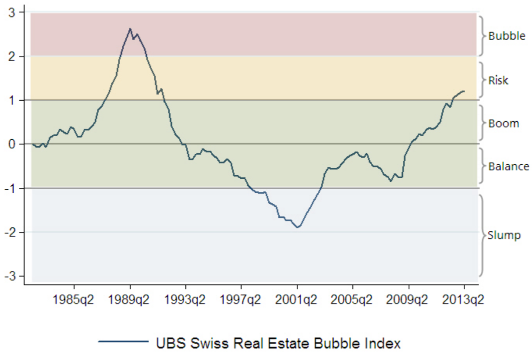
Methodology

The UBS Swiss Real Estate Bubble Index comprises six sub-indices that track: the relationship between purchase and rental prices, the relationship between house prices and household income, the relationship between house prices and inflation, the relationship between mortgage debt and income, the relationship between construction and gross domestic product (GDP) and the proportion of credit applications by UBS clients for residential property not intended for owner occupancy.

The UBS Swiss Real Estate Bubble Index is calculated as the average of trend-adjusted and standardized indicators weighted using a principal component analysis. The index level shows the deviation in standard deviations from the average, which is normalized to zero.

The index value is categorized into one of five levels: slump (below -1), balance (between -1 and 0), boom (between 0 and 1), risk (between 1 and 2) and bubble (above 2).

UBS Swiss Real Estate Bubble Index



Source: UBS

Performance of the UBS Swiss Real Estate Bubble Index

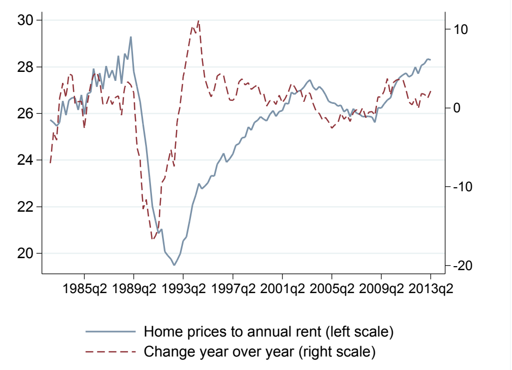
		Index
2009	Quarter 1	-0.24
	Quarter 2	-0.05
	Quarter 3	0.10
	Quarter 4	0.15
2010	Quarter 1	0.25
	Quarter 2	0.21
	Quarter 3	0.33
	Quarter 4	0.39
2011	Quarter 1	0.35
	Quarter 2	0.40
	Quarter 3	0.52
	Quarter 4	0.79
2012	Quarter 1	0.93
	Quarter 2	0.82
	Quarter 3	1.02
	Quarter 4	1.11
2013	Quarter 1	1.17
	Quarter 2	1.20

Source: UBS

Sub-indices of the *UBS Swiss Real Estate Bubble Index*

Own home prices relative to annual rent
The ratio of purchase price to rent remained unchanged in the second quarter of 2013. A total of 28.3 annual rents are still required to purchase a comparable home. The long-term balance lies at approximately 25 annual rents.

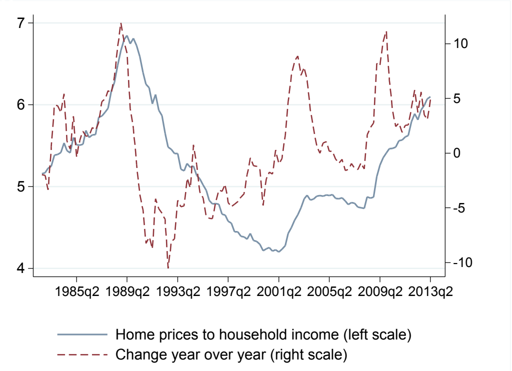
Home prices relative to annual rent
Level and change year-over-year in percent



Sources: SNB; UBS

Home prices relative to household income
Real estate prices rose only slightly faster than household incomes in the 2Q 2013. It still took 6.1 annual household incomes to purchase a home in the medium price segment. The long-term average is 5.2 annual incomes. The peak of 6.9 was reached in 2Q 1989.

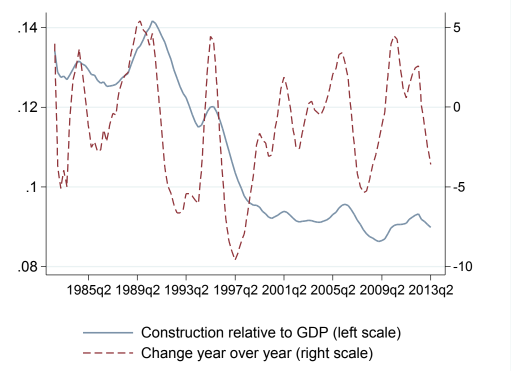
Home prices relative to household income
Level and change year-over-year in percent



Sources: SNB; BFS; UBS

Construction relative to gross domestic product (GDP)
The trend for construction investments shows no sign of reversing. The construction industry's contribution to gross domestic product remained steady at a low 9.0% level in comparison to a long-term mean value of 11%. The peak of 14.1% was reached in the 2Q 1990.

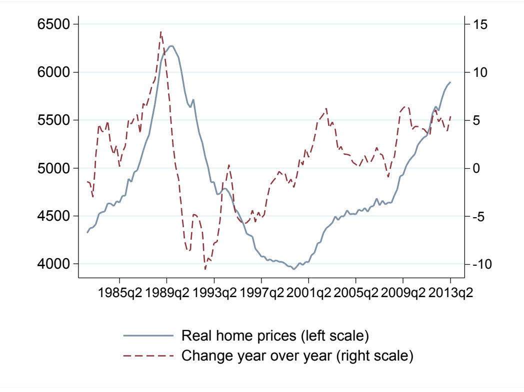
Construction relative to gross domestic product
Level and change year-over-year in percent



Sources: seco; BFS; UBS

Own home prices relative to consumer prices
Property prices in real terms, as a mean value of single-family homes and condominiums, gained 0.6% over the previous quarter. The real price level is thus still about 6% below the price peak during the last real estate bubble in the third quarter of 1989.

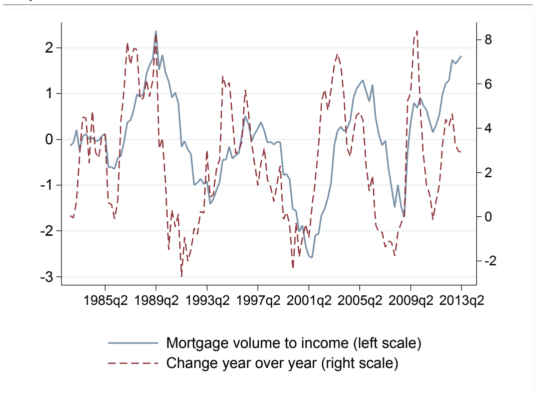
Home prices relative to consumer prices
Real home prices (CHF/m²) and change year-over-year in percent



Sources: SNB; BFS; UBS

Mortgage volume relative to income
The momentum in mortgage lending has slowed to some extent. Growth relative to the development of incomes is nevertheless still significantly above the long-term trend. The indicator rose to 1.82 standard deviations above the long-term mean value in the second quarter of 2013.

Mortgage volume relative to income
Mortgage debt of private households relative to income (detrended series) and change year-over-year in percent



Sources: SNB; BFS; UBS

Credit applications for residential property not intended for owner occupancy (UBS clients)
The number of loan applications for non-owner-occupied properties stagnated at a high level in 2Q 2013, with 21.9% of credit applications meant for properties without direct self-usage. The value thus remained just under the 4Q 2012 high of 22.3%.

Credit applications for residential property not intended for owner occupancy
Share of total and change year-over-year in percent

Source: UBS

Regions with risk potential for the residential real estate market

The number of risk regions remained unchanged in Q2 2013. New price data shows that price growth, and thus also the correction risk, has increasingly shifted to medium-sized centers and more distant agglomerations. The Locarno, Mutschellen, Winterthur and Zurich Unterland and Oberland regions are now included among the monitoring regions.

Methodology

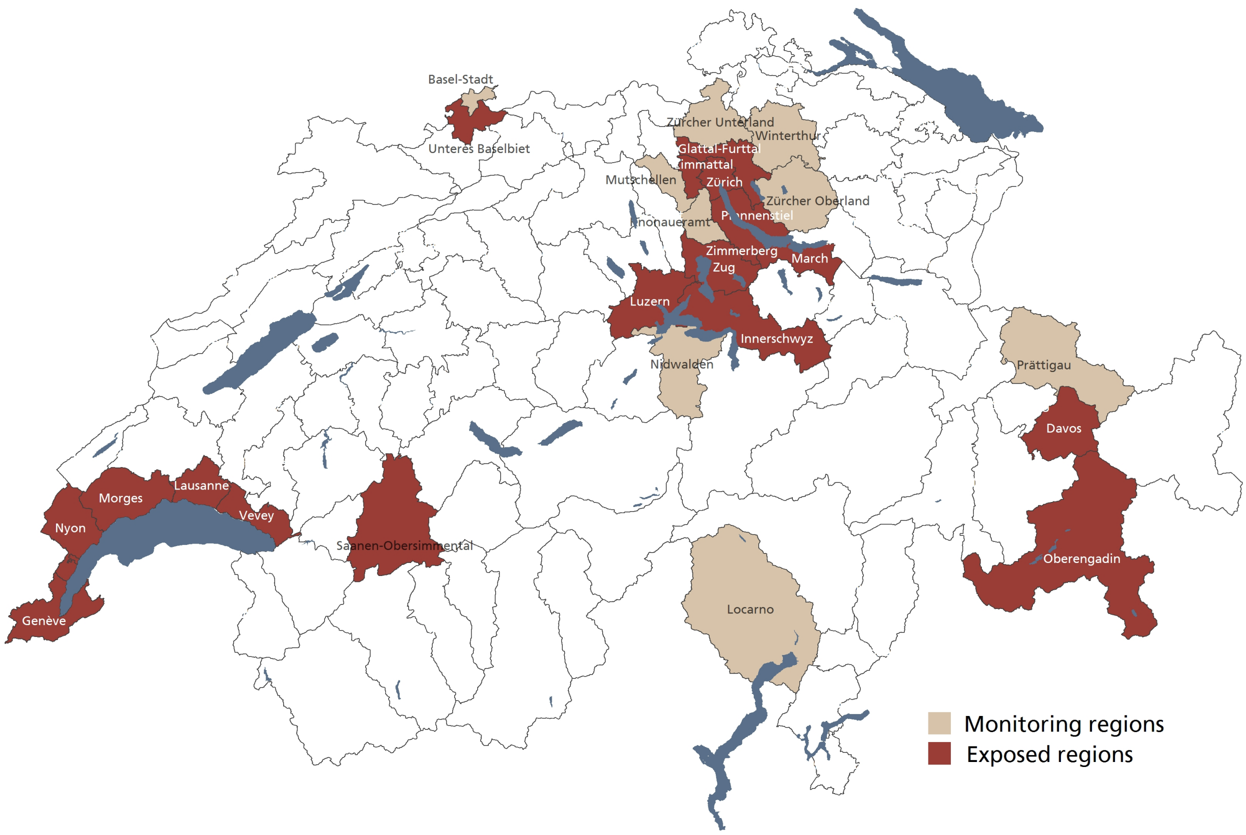
Our selection of exposed regions is tied to the level of the UBS Swiss Real Estate Bubble Index and is based on a multi-level selection process utilizing regional population and property price data (see appendix).

Exposed regions	Monitoring regions
Zürich	Knonaueramt
Glattal-Furttal	Zürcher Oberland*
Limmattal	Winterthur*
Zimmerberg	Zürcher Unterland*
Pfannenstiel	Nidwalden
Saanen-Obersimmental	Basel-Stadt
Luzern	Prättigau
Innerschwyz	Mutschellen*
March	Locarno*
Zug	
Unteres Baselbiet	
Davos	
Oberengadin	
Lausanne	
Morges	
Nyon	
Vevey	
Genève	

** added in the second quarter 2013*

Regional risk map - 2Q 2013

Exposed- and monitoring regions for the Swiss residential real estate market



Sources: Wüest & Partner; BFS; UBS

Appendix: Regional analysis

We utilize an adjusted relative market growth matrix to measure regional risks and risk accruing to the Swiss economy in relation to the situation of the overall market.

First, every region is assigned to one of four categories on the basis of population and population growth (outer matrix):

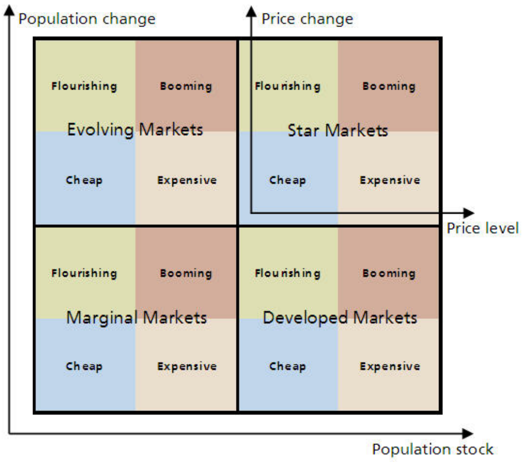
- *Star markets* – densely-populated regions with above-average population growth
- *Saturated markets* - densely populated regions with below-average population growth
- *Growth markets* – small regions with above-average population growth
- *Niche markets* - small regions with below-average population growth

Secondly, the regions are assigned to one of four further categories (inner matrix), irrespective of their categorization described above, based on price levels and housing price increases:

- *Booming* – expensive regions with above-average price increases
- *Expensive* – expensive regions with below-average price increases
- *Flourishing* – cheap regions with above-average price increases
- *Cheap* – cheap regions with below-average price increases

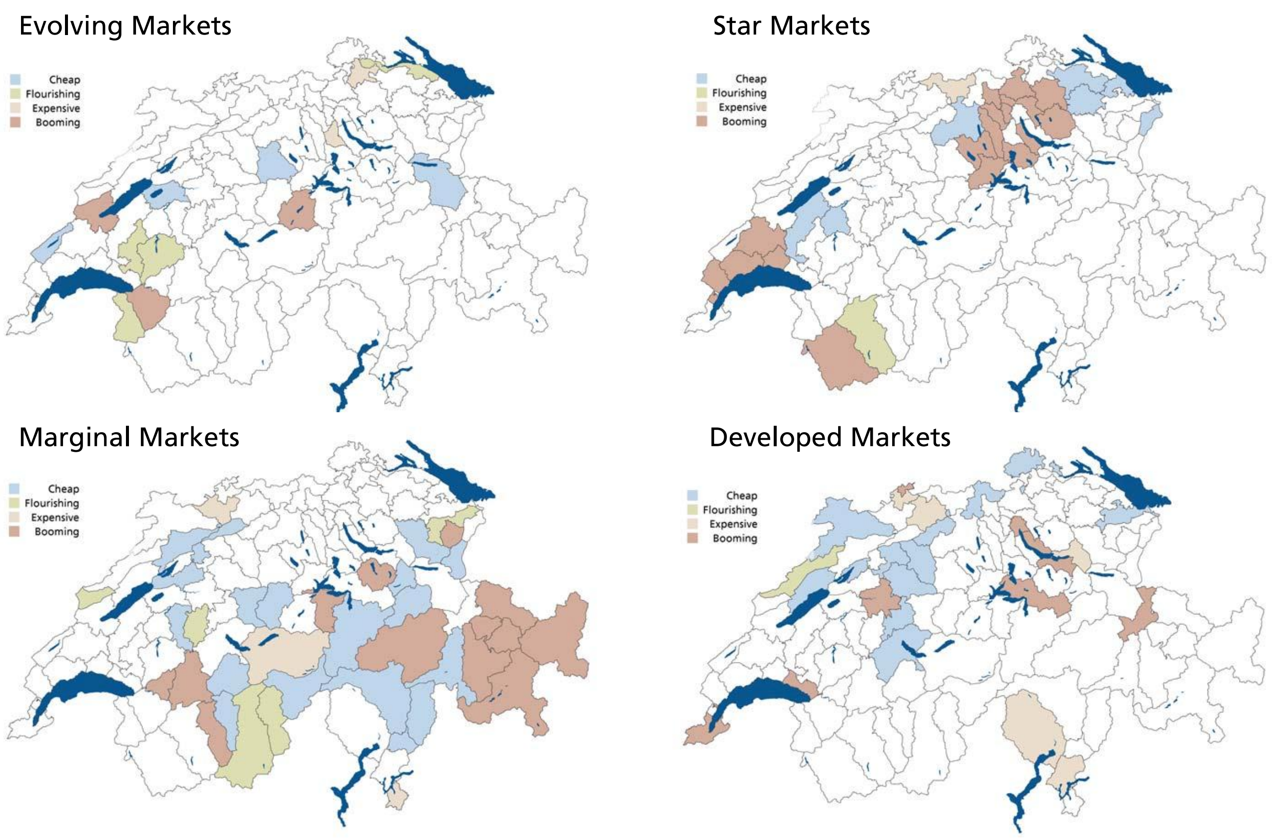
Thirdly, the relative market growth matrix is linked to the UBS Swiss Real Estate Bubble Index, rendering the selection criteria dependent on the current index level. The higher the index level, the less (relatively) restrictive the selection of regions is.

Relative market growth matrix
With population and prices as variables



Source: UBS
Example: The upper right quadrant – Star market, booming – contains all regions with both above-average population growth and price increases and that are among the most populated and expensive regions.

Categorization using the relative market growth matrix – overview



Sources: Wüest & Partner; BFS; UBS

Appendix