Swiss real estate market

UBS Swiss Real Estate Bubble Index - 3Q 2013

Matthias Holzhey, economist, UBS AG
matthias.holzhey@ubs.com

Claudio Saputelli, economist, UBS AG
claudio.saputelli@ubs.com

- The *UBS Swiss Real Estate Bubble Index* rose to 1.20 from 1.15. Although economic growth in the last quarter was higher than in the previous quarter, it was unable to keep pace with the price and debt momentum on the residential real estate market.
- The price gap between owner-occupied and rented properties opened wider. Despite high real estate prices, demand for condominiums as investment properties remained at a sustained high level.
- The number of risk regions remained unchanged in 3Q 2013.

The *UBS Swiss Real Estate Bubble Index* currently stands at 1.20 (time series revised). This corresponds to an increase of 0.05 index points on the previous quarter. Residential real estate prices and mortgage debt continued to grow much more strongly than economic output and household incomes. The risks have thus risen further.

The rise in the index in the third quarter of 2013 was driven by price growth in residential property, running at a level of 4.2% year-on-year in real terms. Since asking rents in the same period only increased by 3.3%, the price gap between owner-occupied and rented properties opened wider. The number of annual rents required to purchase a home is thus now 28.3 on average.

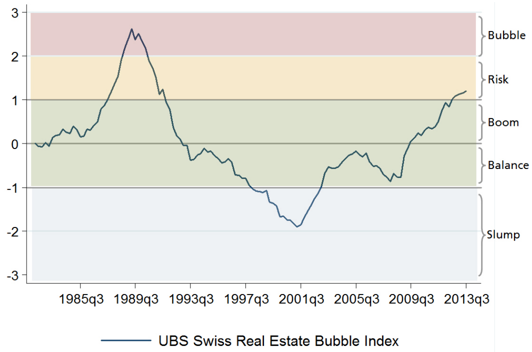
Despite high real estate prices relative to rental income, demand for condominiums as investment properties remained at a sustained high level. For example, the proportion of loan applications received by UBS for properties not used directly by their owners rose to 22.1% of the total.

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
2010	Quarter 1	0.24
	Quarter 2	0.19
	Quarter 3	0.32
	Quarter 4	0.37
2011	Quarter 1	0.34
	Quarter 2	0.39
	Quarter 3	0.51
	Quarter 4	0.78
2012	Quarter 1	0.93
	Quarter 2	0.84
	Quarter 3	1.01
	Quarter 4	1.09
2013	Quarter 1	1.14
	Quarter 2	1.15
	Quarter 3	1.20

Source: UBS

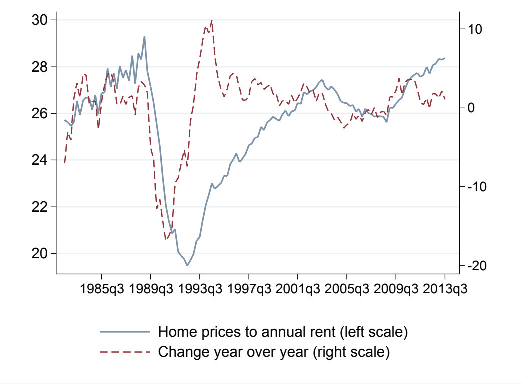
As a result of a revision of the data, the index values have been adjusted. Since the sub-indices carry different weights, small adjustments may also be made each quarter.

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

Own home prices relative to annual rent

The ratio of purchase price-to-rent rose slightly in the third quarter of 2013. About 28.3 annual rents are 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

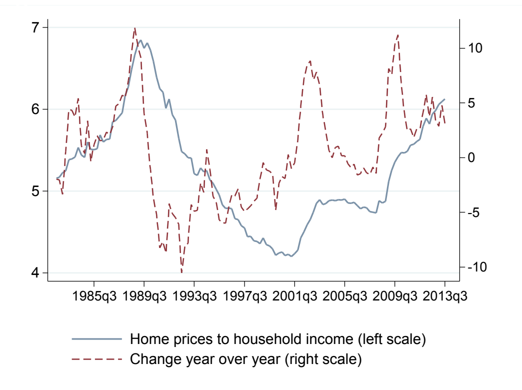


Sources: SNB; UBS

Home prices relative to household income

Residential real estate prices also rose somewhat faster than household incomes in the third quarter of 2013. It still takes 6.1 annual household incomes to purchase a home in the medium price segment. The long-term average lies at 5.2 annual incomes. The peak of 6.9 was reached in the second quarter of 1989.

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

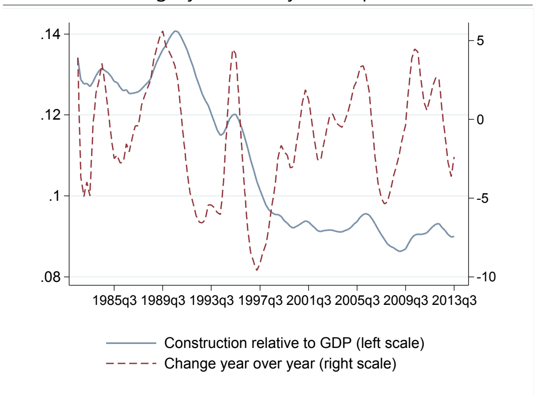


Sources: SNB; BFS; UBS

Construction relative to gross domestic product (GDP)

The construction industry's contribution to gross domestic product remains steady at the low level of 9.0%. The long-term mean value lies at 11%. The peak of 14.1% was recorded in the second quarter of 1990.

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

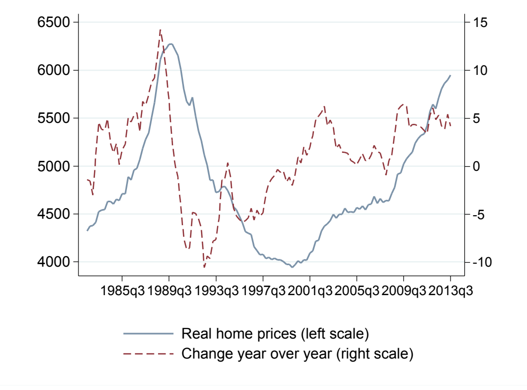


Sources: seco; BFS; UBS

Own home prices relative to consumer prices

Property prices in real terms, as a mean value of single-family homes and condominiums, gained 0.8% in comparison with the previous quarter. The real price level is thus still about 5% 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

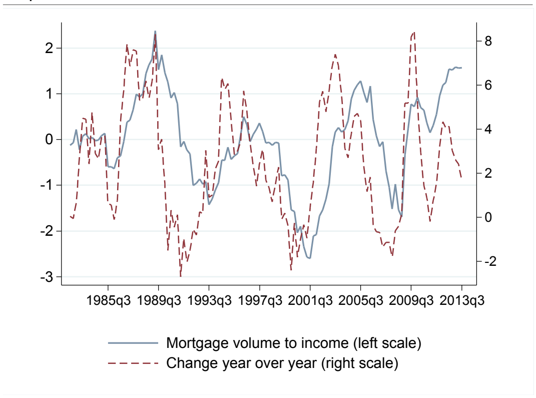


Sources: SNB; BFS; UBS

Mortgage volume relative to income

Household mortgage debt has risen sharply in recent years and is now about 110% of gross domestic product. Growth in the volume of mortgages relative to the development of incomes is nevertheless still significantly above the long-term trend. However, momentum has weakened slightly.

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

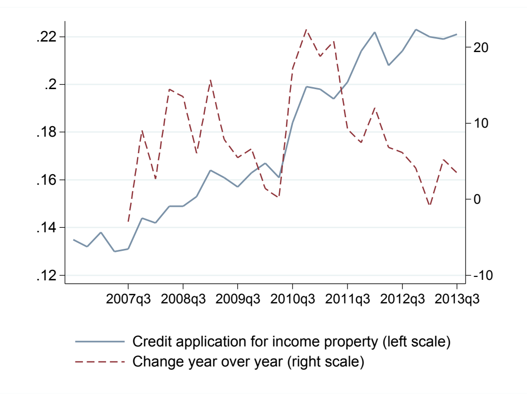


Sources: SNB; BFS; UBS

Credit applications for residential property not intended for owner occupancy (UBS clients)

The number of loan applications for non-owner-occupied properties rose marginally compared to the previous quarter. In the third quarter of 2013, 22.1% of credit applications were meant for properties without direct self-usage. The value thus remained just under the high of the fourth quarter of 2012 at 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

Regional risks remained unchanged in the third quarter of 2013. A trend reversal is nevertheless becoming apparent in the risk regions on Lake Geneva. The region is the only major urban center to see stagnating or declining prices for residential property in practically all segments. Due to the valuations in the Lake Geneva region, which are high relative to other risk regions, the potential for correction is still high.

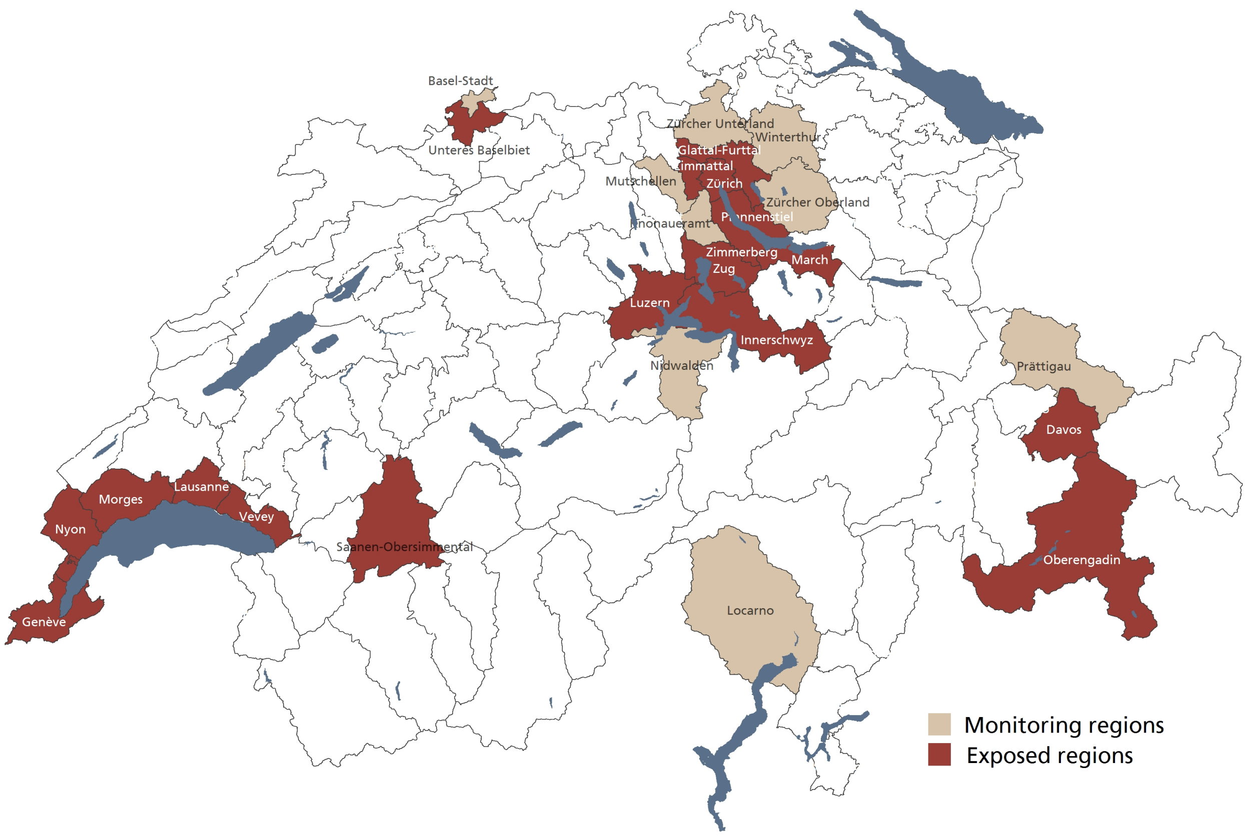
Methodology

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	

Regional risk map - 3Q 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):

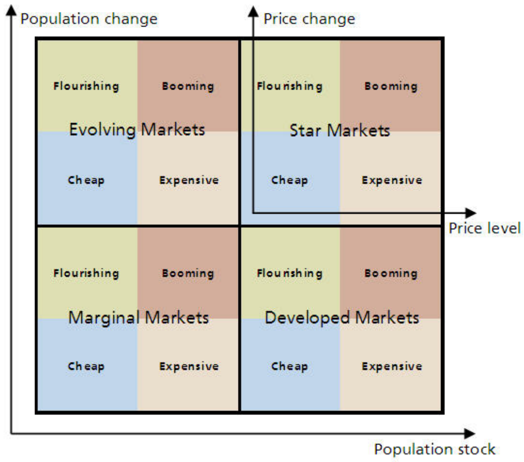
- *Star markets* – densely-populated regions with above-average population growth
- *Saturated markets* - densely populated regions with below-average population growth
- *Growth markets* – small regions with above-average population growth
- *Niche markets* - small regions with below-average population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

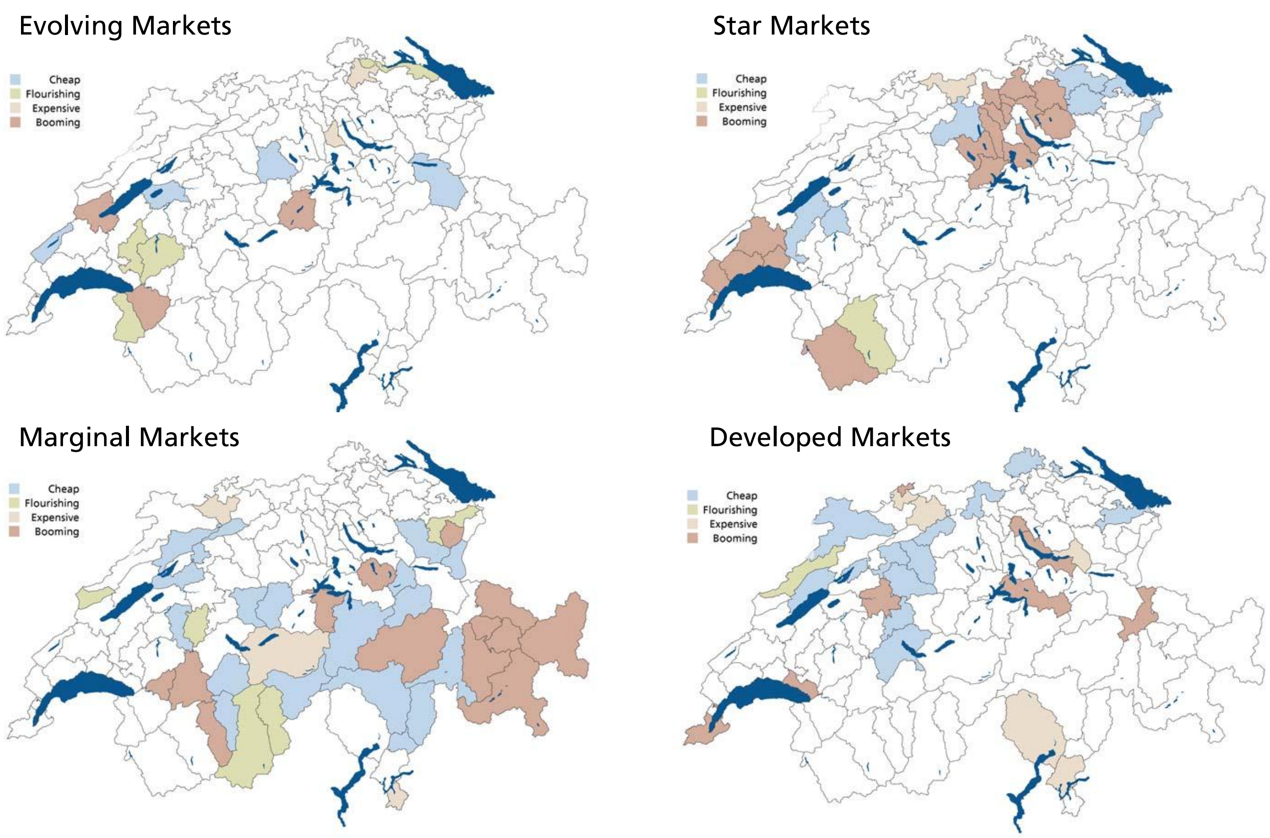
Thirdly, the relative market growth matrix is linked to the UBS Swiss Real Estate Bubble Index, rendering the selection criteria dependent on the current index level. The higher the index level, the less (relatively) restrictive the selection of regions is.

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 *(source: UBS)*



Sources: Wüest & Partner; BFS; UBS

Appendix