Swiss real estate market

UBS Swiss Real Estate Bubble Index - 3Q 2014

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- The *UBS Swiss Real Estate Bubble Index* has risen from 1.24 to 1.29. This rise was seen in five of the six sub-indices.
- The increase in risks for the Swiss economy stands in contrast to the now subdued price behavior for owner-occupied homes, although it does reflect the even weaker performance of incomes, consumer prices and rents.
- The regions of St. Gallen, Linth and Lucerne (formerly risk region) are now counted among the monitoring regions. Due to the weak price momentum, however, the Zurich lowlands, Mutschellen and Baden regions are no longer included.

The *UBS Swiss Real Estate Bubble Index* was in the risk zone in the third quarter of 2014 at 1.29. Compared to the previous quarter, the index rose by 0.05 points. This is the first significant increase since mid-2013, with five of the six sub-indices going up.

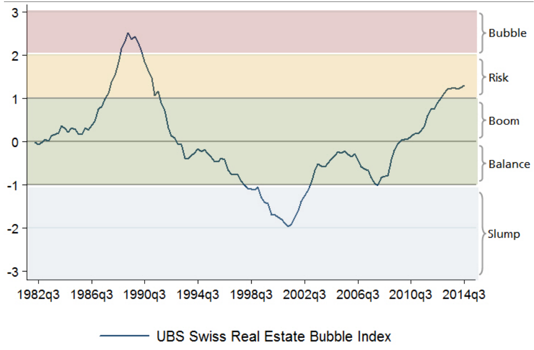
The increase in the index stands in contrast to the now very subdued price behavior on the market for owner-occupied homes. Low price increases induce a reduction of risks only if at the same time incomes, consumer prices and rents increase more strongly. This did not occur, however, as the third quarter of 2014 saw a decline both in household incomes, down 0.1%, and consumer prices, down 0.3% quarter-on-quarter. Relatively high vacancy rates on a regional basis and declining consumer prices also had a negative impact on rental price performance. For example, quoted rents fell by a nominal 0.5% compared to the previous quarter. The number of credit applications at UBS for properties not intended for self-occupancy declined marginally in the third quarter of 2014, although it is still at a highly elevated level, accounting for 18.3% of all mortgage loan applications.

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
2011	Quarter 1	0.19
	Quarter 2	0.24
	Quarter 3	0.37
	Quarter 4	0.60
2012	Quarter 1	0.74
	Quarter 2	0.76
	Quarter 3	0.90
	Quarter 4	1.02
2013	Quarter 1	1.11
	Quarter 2	1.22
	Quarter 3	1.23
	Quarter 4	1.25
2014	Quarter 1	1.21
	Quarter 2	1.24
	Quarter 3	1.29

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.

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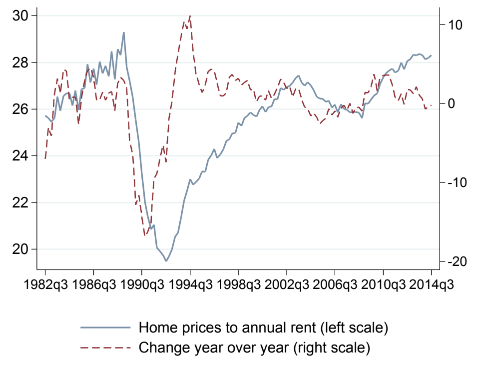
Sub-indices of the *UBS Swiss Real Estate Bubble Index*

Home prices relative to annual rent
Purchase prices increased 0.4%, while rents lost around 0.5% compared to the previous quarter. The ratio of purchase price to rent thus continued to rise in the third quarter of 2014 and currently stands at 28.3. This figure is well above the long-term average of about 25.

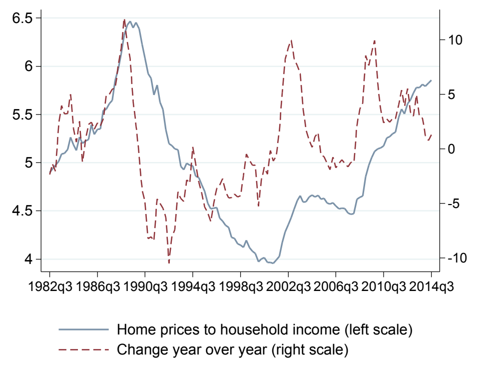
Home prices relative to annual rent
Level and change year-over-year in percent



Sources: SNB; UBS

Home prices relative to household income
Home prices continued to rise more strongly than the slightly declining per household income in the third quarter of 2014. This means that about 5.9 annual household incomes are needed to purchase a home in the medium price segment. In the previous quarter, 5.8 annual household incomes were sufficient. The long-term average lies at 5 annual household incomes.

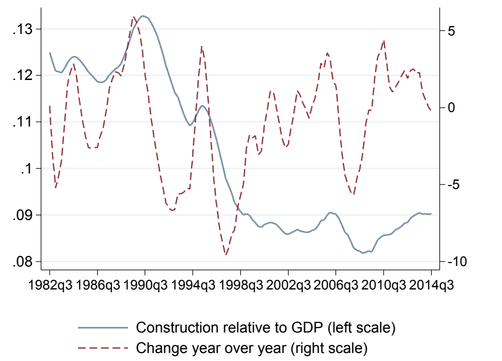
Home prices relative to household income
Level and change year-over-year in percent



Sources: SNB; BFS; UBS

Construction relative to gross domestic product (GDP)
The construction industry's contribution to gross domestic product remained steady at 9.0% in the third quarter of 2014. The long-term average value lies at 10.3%. Construction volume increased by just 6% in real terms compared with 1990, while gross domestic product grew by almost 45%.

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



Sources: seco; BFS; UBS

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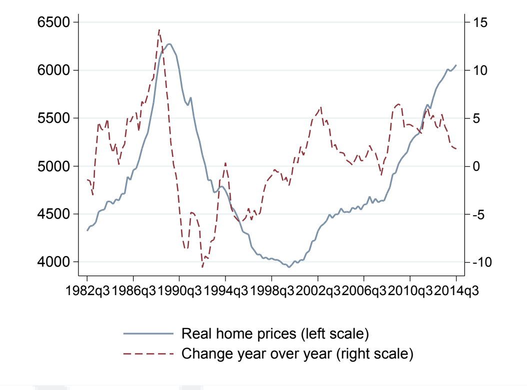
Home prices relative to consumer prices

Real home prices, as the average value of prices for single-family homes and condominiums, rose 0.7% compared to the previous quarter and 1.8% compared to the previous year. The indicator is still just under 4% below the price peak of the last real estate bubble in 1990.

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

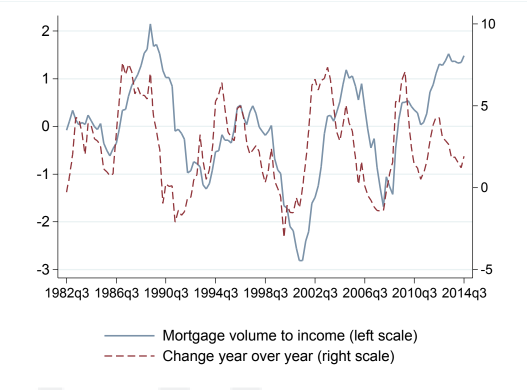


Sources: SNB; BFS; UBS

Mortgage volume relative to income

Private household mortgage debt has risen sharply in recent years and is now about 104% of gross domestic product. The 3.4% rise in mortgage volume in the third quarter now lies below the average of previous years. Bearing in mind the stagnant or slightly declining household incomes, the indicator nevertheless continued to increase compared to the previous quarter.

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

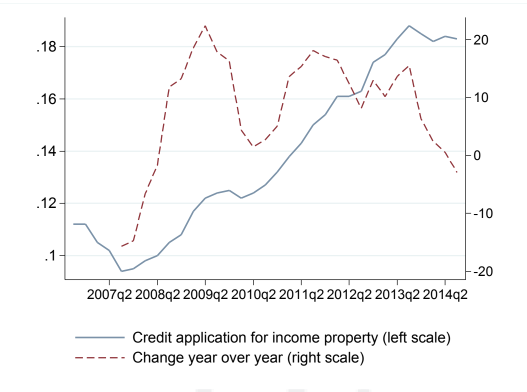


Sources: SNB; BFS; UBS

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

The number of loan applications for non-owner-occupied properties fell marginally compared to the previous quarter. In the third quarter of 2014, 18.3% of the credit applications were for properties not intended for self-occupancy. The indicator has now been stagnating at a high level for six quarters.

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



Source: UBS. Due to an expansion of the database, the number of loan applications for residential property not intended for self-occupancy has been scaled down slightly. However, the historical trend relevant to the index level has not changed to any great extent as a result.

Regions with risk potential for the residential real estate market

The weaker price behavior is leaving its mark on the regional risk map. Homes became more expensive primarily in Eastern Switzerland and in peripheral agglomerations, and in some areas of the Alps and Ticino. For this reason we downgraded Lucerne from a risk region to a monitoring region. In addition, we are no longer including the regions Zurich Unterland, Mutschellen and Baden among the monitoring regions, while the St. Gallen and Linth regions are now counted as 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).

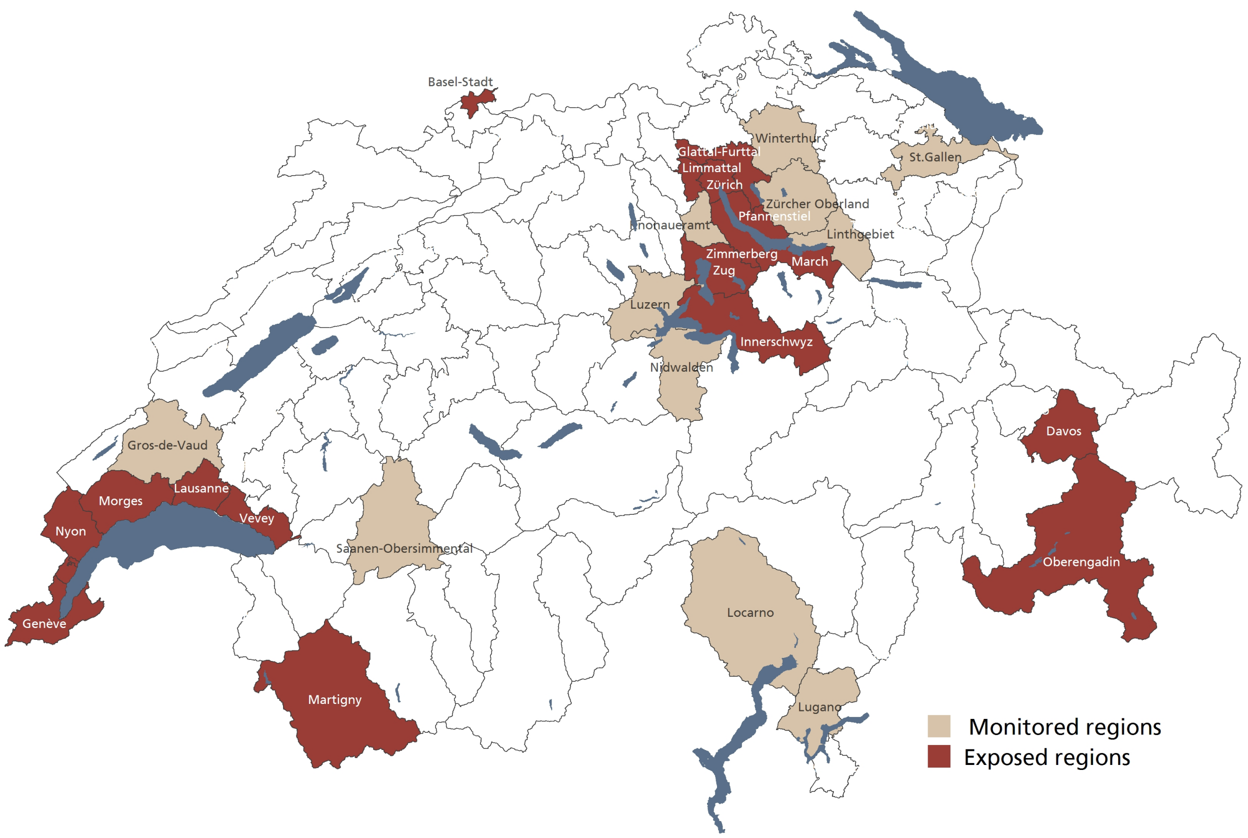
Exposed regions	Monitored regions
Zürich	Knonaueramt
Glattal-Furttal	Zürcher Oberland
Limmattal	Winterthur
Zimmerberg	Saanen-Obersimmental
Pfannenstiel	Luzern**
Innerschwyz	Nidwalden
March	St.Gallen*
Zug	Linthgebiet*
Basel-Stadt	Locarno
Davos	Lugano
Oberengadin	Gros-de-Vaud
Lausanne	
Morges	
Nyon	
Vevey	
Martigny	
Genève	

** added in the third quarter 2014*

*** in the previous quarter classified as exposed region*

Regional risk map - 3Q 2014

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



Source: 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):

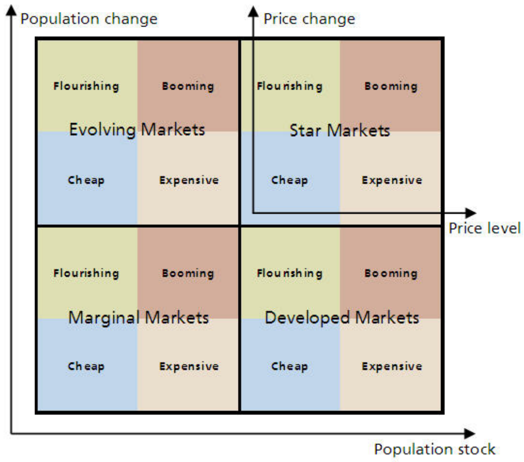
- *Star Markets* – densely-populated regions with high population growth
- *Developed Markets* – densely populated regions with low population growth
- *Evolving Markets* – small regions with high population growth
- *Marginal Markets* – small regions with low population growth

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

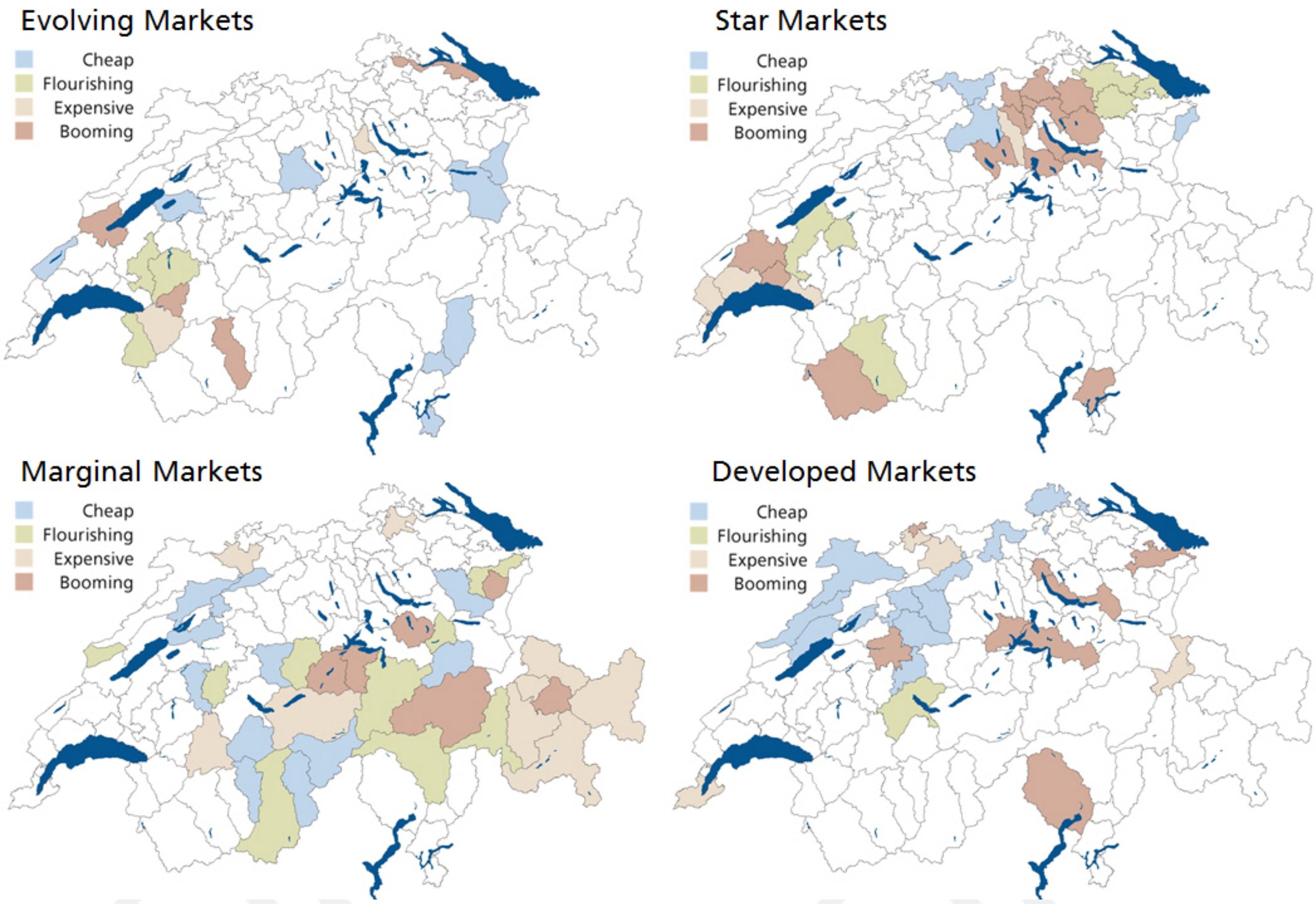
Thirdly, the relative market growth matrix is linked to the UBS Swiss Real Estate Bubble Index, rendering the selection criteria dependent on the current index level. The higher the index level, the less (relatively) restrictive the selection of regions is.

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)*



Appendix

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