

Swiss real estate market

UBS Swiss Real Estate Bubble Index 2Q 2018

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Matthias Holzhey, Economist, matthias.holzhey@ubs.com; Claudio Saputelli, Economist, claudio.saputelli@ubs.com; Maciej Skoczek, CFA, Economist, maciej.skoczek@ubs.com

- Switzerland's real estate bubble index underwent a further decline in the second quarter of 2018 and is currently at 1.00 index point.
- The owner-occupied market cooled off further, while income and consumer prices rose markedly.
- However, long-term sustainability risks remain comparatively high.

At 1.00 point, the *UBS Swiss Real Estate Bubble Index* was only just in the risk zone in the second quarter of 2018. This means the bubble risk for the owner-occupied home market has clearly receded in the course of a year. There was a slight correction in owner-occupied home prices despite high economic growth and rising consumer prices. For example, there was a further drop in prices for owner-occupied flats. Compared to the previous year, prices have already fallen by 2.6 percent. However, nominal economic output increased by 2.8 percent in the same period and consumer prices were also over 1 percent higher. As a result, five of the six sub-indicators declined in the last quarter. For example, the price-income ratio sank for the sixth time in a row and is now the same as three years ago.

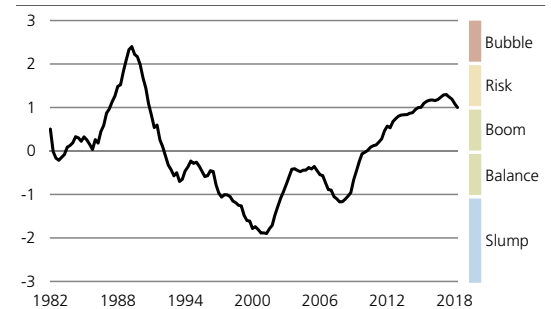
Sustainability risks still high

Despite developments in recent quarters, price-driven sub-indicators continue to point to affordability risks. For example, the real price level and the purchase-price-to-rent ratio, as well as the price-income ratio, are close to the values seen during the last real estate bubble at the end of the 1980s. However, the real estate bubble risk is greatly reduced by the slower pace in granting mortgage loans and the economy's relatively low dependence on the construction industry.

SNB sees acute risks

The changes in the real estate bubble index show a cooling-off in the owner-occupied market and indicate an end to the current property cycle. However, in its recently published financial stability report, the Swiss National Bank (SNB) warned of an acute increase in imbalances in the market for owner-occupied flats. This difference in perception is primarily due to the use of different price indices. But when observed over a long period, the divergence in the last several quarters disappears: the indices have practically stagnated since negative interest rates were introduced three-and-a-half years ago.

UBS Swiss Real Estate Bubble Index



Source: UBS

	Index		Index
2015-Q1	1.00	2017-Q1	1.29
2015-Q2	1.09	2017-Q2	1.30
2015-Q3	1.14	2017-Q3	1.24
2015-Q4	1.17	2017-Q4	1.19
2016-Q1	1.17	2018-Q1	1.09
2016-Q2	1.16	2018-Q2	1.00
2016-Q3	1.18		
2016-Q4	1.24		

Source: UBS. The index values may be slightly adjusted each quarter as a result of data revisions and varying weights of the sub-indices.

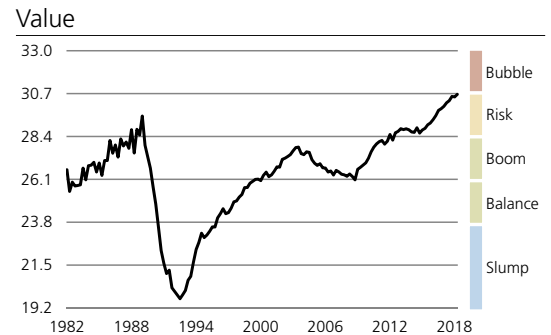
Methodology: The UBS Swiss Real Estate Bubble Index comprises six sub-indices. The index is calculated as the average of trend-adjusted and standardized indicators, weighted using a principal component analysis. The index level shows the deviation in standard deviations from the average, normalized to zero. The index value is categorized into one of five levels based on the current value: downward trend (below -1), balance (between -1 and 0), boom (between 0 and 1), risk (between 1 and 2) and bubble (above 2).

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

Owner-occupied housing prices relative to annual rent

- An above-average buy-to-rent ratio indicates a high dependency on sustained low interest rates or implies expectations of future price increases.
- The long-term average is 26.1 annual rents. In March 1989, the indicator peaked at 29.3.
- In the second quarter of 2018, 30.7 annual rents were needed to acquire a comparable own home. The increase in the indicator is due to rents falling by about 0.8 percent quarter-on-quarter while owner-occupied prices only eased about 0.3 percent.

Owner-occupied housing prices relative to annual rent

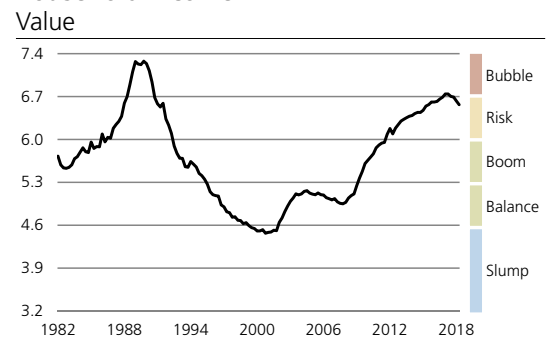


Source: SNB; UBS

Owner-occupied housing prices relative to household income

- The indicator shows whether the price behavior of the owner-occupied housing market is supported by changes in household income. A decoupling of prices from average household income can be interpreted as a sign of interest rate risks.
- In terms of a long-term average, it takes 5.7 annual incomes to purchase an owner-occupied home in the medium price segment.
- In the second quarter of 2018, almost 6.6 annual household incomes were required for the acquisition of an own home in the medium price segment. Due to the increase in household income compared to the previous quarter, the indicator declined slightly.

Owner-occupied housing prices relative to household income

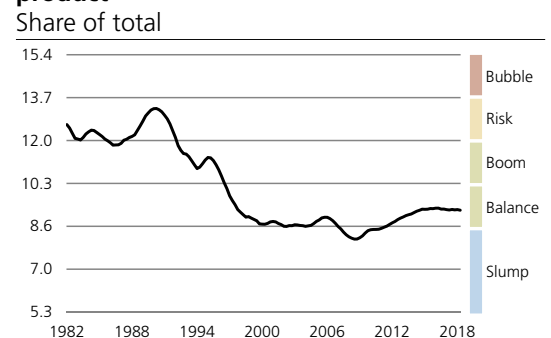


Source: SNB; FSO; UBS

Construction relative to gross domestic product (GDP)

- If the construction sector gains weight within the national economy, this can signal an overheating of the real estate market.
- The current values are well below the peak values of the 1980s.
- Nominal construction investments fell slightly in the second quarter of 2018. But year-on-year, they grew by 1.7 percent. Consequently, the share of construction investments in gross domestic product declined slightly and was almost 9.3 percent.

Construction relative to gross domestic product



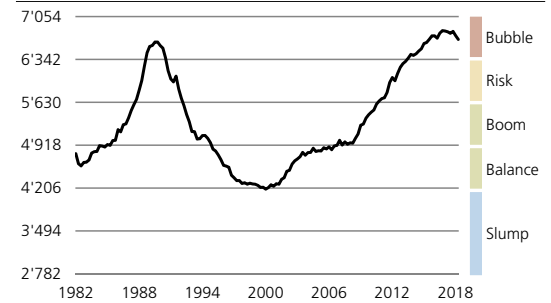
Source: SECO; FSO; UBS

Home prices relative to consumer prices

- In the long term, owner-occupied housing prices are likely to be oriented toward the development of construction costs and general inflation. A sharp and lasting increase in inflation-adjusted owner-occupied housing prices is thus a warning signal for a possible correction.
- After adjustment for inflation, owner-occupied housing prices are now barely above the high of 1989.
- The consumer price index went up by 0.6 percent in the second quarter of 2018. Inflation-adjusted owner-occupied home prices dropped by almost 1 percent quarter-on-quarter. The correction was stronger for owner-occupied flats than for single-family houses.

Home prices relative to consumer prices

Real owner-occupied housing price behavior (CHF/m²)



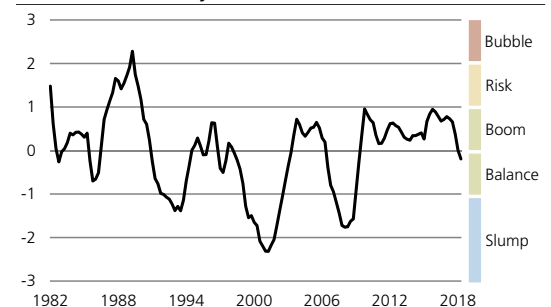
Source: SNB; FSO; UBS

Mortgage volume relative to disposable household income

- A sharp growth in mortgage debt is a clear indication of the owner-occupied housing market overheating. In the event of an increase in interest rates or a correction in owner-occupied housing prices, high household debt increases the negative consequences for the national economy.
- The volume of outstanding household mortgages grew by about 2.6 percent compared to the previous year. As a result, disposable household income grew more strongly than the volumes of outstanding mortgages compared to a year ago.
- The slowdown in household debt growth has dampened the development of the Real Estate Bubble Index in the last few quarters.

Mortgage volume relative to income

Mortgages of private households relative to income (trend-adjusted, standardized)



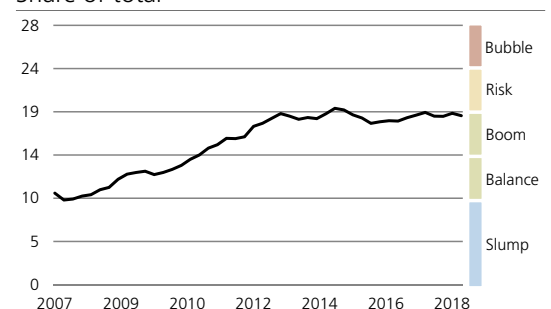
Source: SNB; FSO; UBS

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

- High demand for residential property for the purpose of leasing (buy-to-let) indicates greater speculative demand.
- The number of credit applications for real estate not intended for personal use declined slightly in the second quarter of 2018. Buy-to-let remains a popular investment strategy, with a value of 18.6 percent for all credit applications.
- However, the current value remains below the record high in 2015.

Credit applications for residential real estate not intended for self-occupancy

Share of total



Source: UBS

Regional analysis

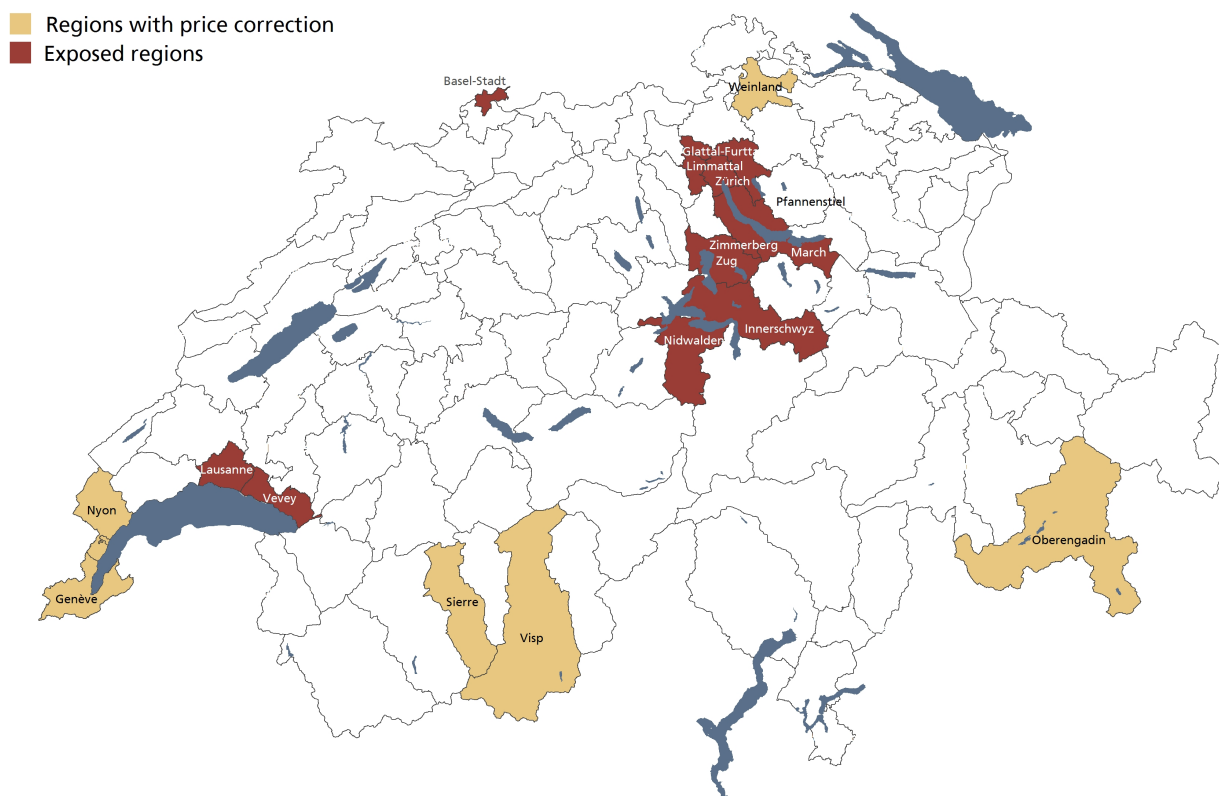
Nidwalden is now one of the risk regions, while Morges is no longer one of them. Currently, Nidwalden is the region with the highest price increases in Switzerland. Prices there have gone up by more than 15 percent in the past three years.

Methodology

The regional risk map shows those regions posing the greatest macroeconomic risks in the event of a Swiss-wide correction. The analysis is based on the population size, the price level and the price behavior for owner-occupied homes. The selection of risk regions is linked to the UBS Swiss Real Estate Bubble Index. Vacancy or liquidity risks are not taken into account.

Regional risk map – second quarter of 2018

Risk regions for the Swiss residential property market and regions with a price correction of more than 5% since 2015



Source: UBS

Appendix

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