

# Swiss real estate market

## UBS Swiss Real Estate Bubble Index 4Q 2018

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- The *UBS Swiss Real Estate Bubble Index* stands at 0.87 index points, unchanged compared to the previous quarter. Advertised home prices declined in the last quarter. This did not affect the index level, as consumer prices, incomes and rents also fell.
- In the fourth quarter of 2018, it took 31 annual rents to purchase a comparable owner-occupied home. In contrast, the price/income ratio sank for the seventh quarter in a row. Almost 6.5 annual household incomes were still required for the acquisition of an owner-occupied home in the medium price segment.
- The regional risk map indicates the biggest imbalances in the Zurich area and Central Switzerland. Basel, Lausanne and Lugano also count as risk regions.

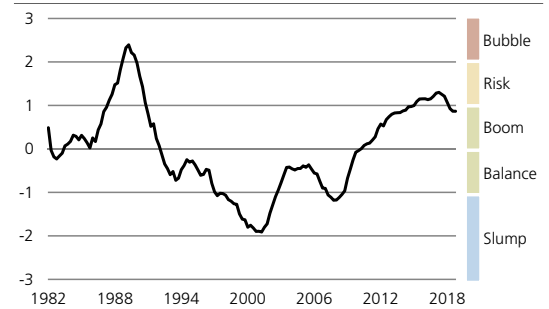
### Basic concept

The term “bubble” describes significant and persistent asset mispricing. Bubbles can only be identified after they have burst. However, property market excesses show repeating patterns in historical data. Typical signs include a decoupling of prices from local incomes and home rents, as well as distortions of the real economy, such as excessive lending and construction activity. The *UBS Swiss Real Estate Bubble Index* uses the presence of such patterns to measure the risk of a real estate bubble on the Swiss market for owner-occupied homes.

### Index calculation

The *UBS Swiss Real Estate Bubble Index* comprises six subindices. 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).

### UBS Swiss Real Estate Bubble Index



Source: UBS

Year	Period	Index	Trend
2013	Quarter 1	0.80	■
	Quarter 2	0.83	■
	Quarter 3	0.83	■
	Quarter 4	0.84	■
2014	Quarter 1	0.87	■
	Quarter 2	0.89	■
	Quarter 3	0.97	■
	Quarter 4	0.97	■
2015	Quarter 1	1.00	■
	Quarter 2	1.09	■
	Quarter 3	1.15	■
	Quarter 4	1.15	■
2016	Quarter 1	1.15	■
	Quarter 2	1.13	■
	Quarter 3	1.15	■
	Quarter 4	1.21	■
2017	Quarter 1	1.28	■
	Quarter 2	1.30	■
	Quarter 3	1.26	■
	Quarter 4	1.21	■
2018	Quarter 1	1.07	■
	Quarter 2	0.93	■
	Quarter 3	0.87	■
	Quarter 4	0.87	■

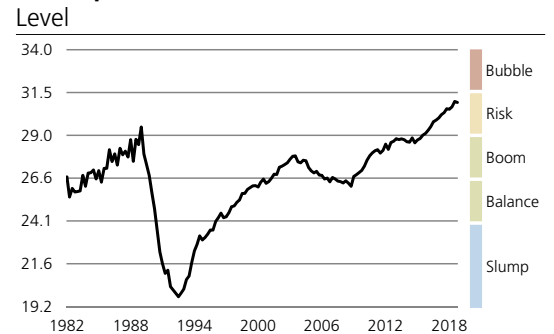
■ Increase compared to the previous quarter  
 ■ Decrease compared to the previous quarter  
 ■ Unchanged

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

### Home prices to annual rents

An above-average buy-to-rent ratio indicates a high dependency on sustained low interest rates or implies expectations of future price increases.

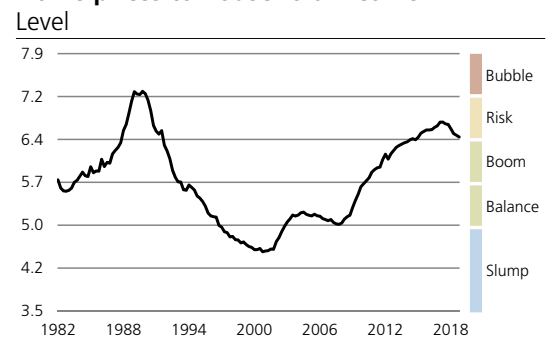
### Home prices to annual rents



### Home prices to household income

The indicator shows whether the price behavior of the owner-occupied housing market is supported by a change in household income. A decoupling of prices from average household income can be interpreted as a sign of interest rate risks.

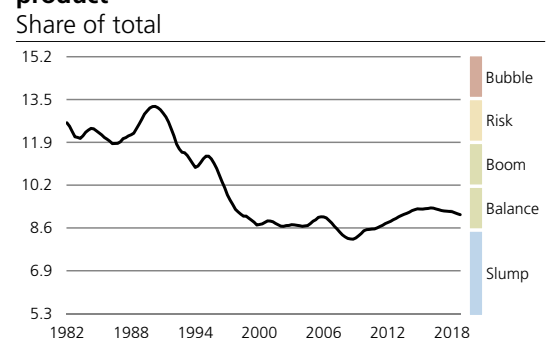
### Home prices to household income



### 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.

### Construction relative to gross domestic product

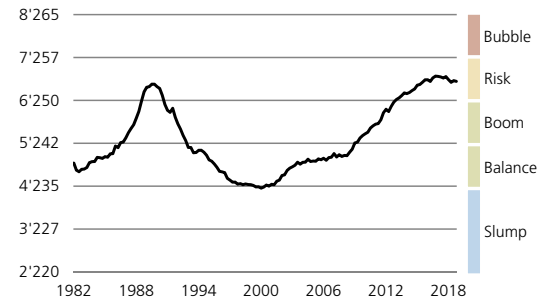


**Home prices relative to consumer prices**

In the long term, owner-occupied housing prices are likely to be oriented towards 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.

**Home prices relative to consumer prices**

Real owner-occupied housing price behavior (CHF/m<sup>2</sup>)



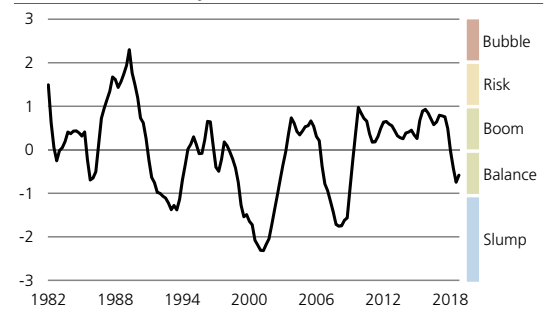
Sources: SNB; FSO; UBS

**Mortgage volume relative to disposable income of private households**

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.

**Mortgage volume relative to income**

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



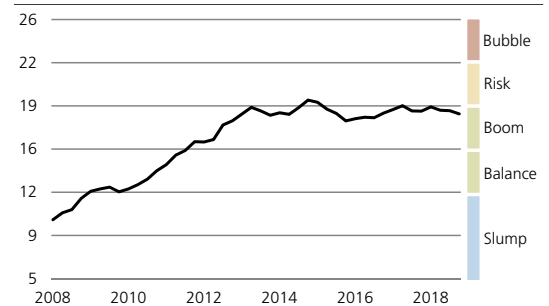
Sources: SNB; FSO; UBS

**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.

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

Share of total



Source: UBS

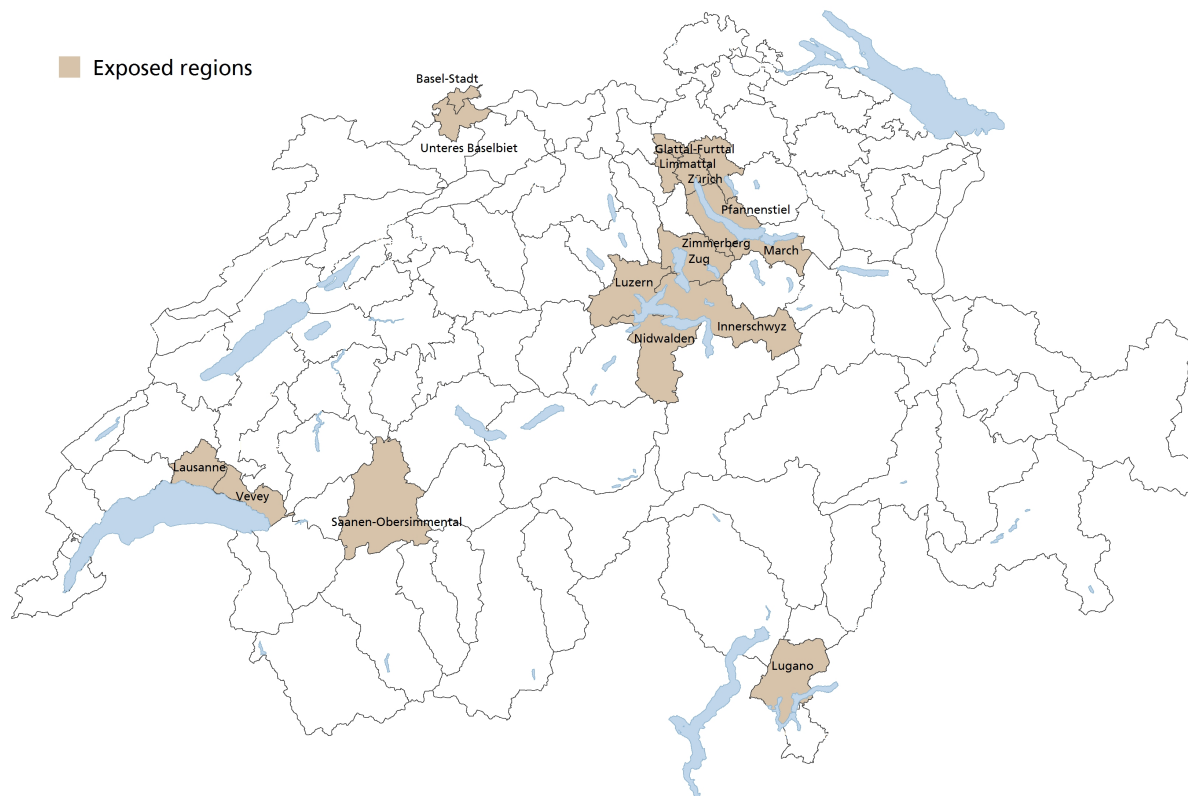
## Regional risk map

The *regional risk map* reveals the regions in which the imbalances are most extreme. The analysis is based on the local price/income ratio, the local price/rent ratio and the long-term price behavior for homes. The selection of risk regions is linked to the *UBS Swiss Real Estate Bubble Index* and takes into account the size of the local second-home market. Due to adjustments made to the method, the risk map is only comparable to some extent with previous issues of the report.

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### Risk regions in the Swiss residential real estate market

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Source: UBS

## Appendix

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