

UBS Swiss Real Estate Bubble Index 1Q. 2020

Swiss real estate market

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The *UBS Swiss Real Estate Bubble Index* measures the risk of a real estate bubble in the Swiss market for owner-occupied homes. The index rose to 1.30 index points in the first quarter of 2020. This puts the Swiss real estate market in the risk zone. The coronavirus effect should only become visible in the current quarter.



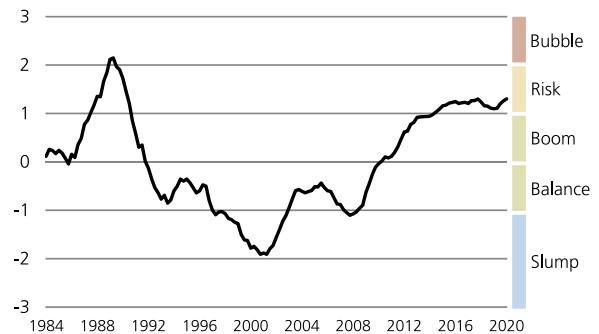
The *UBS Swiss Real Estate Bubble Index* rose to 1.30 index points in the first quarter of 2020. The revised value for the previous quarter was 1.26 index points (see next page). In the last quarter, the rise in the index can be attributed to three developments. Firstly, prices rose by 1.0 percent in the first quarter, which was the highest increase since 2014. Secondly, this acceleration of rising prices in the owner-occupied market was associated with a smaller rise in household incomes, and consumer prices stagnated. The fall in incomes since March, as a result of the corona crisis, isn't yet included in these calculations. Thirdly, the applications for buy-to-let investments rose to a slightly higher level than in previous quarters. On the other hand the trends in construction activity and mortgage lending remained stable. There was also little change in the price-to-rent ratio.

Abrupt end to the acceleration phase

The impact the corona crisis has on the Swiss home-owner market will probably only become clear in the current quarter, at the earliest. We expect a decline in the number of transactions. Because both sellers and buyers are behaving more cautiously, pricing is more difficult and the effect on price behavior isn't clear. Particularly in less liquid segments and regions, chance and property-specific characteristics could have a greater influence on the transaction price than in the previous year. The aggregate demand for homes is also falling against the backdrop of rising unemployment and uncertainty about the economy. So the accelerated rise

in prices that started in the middle of 2019, driven by low mortgage interest rates, is over for the time being.

UBS Swiss Real Estate Bubble Index



Source: UBS

Index calculation: The *UBS Swiss Real Estate Bubble Index* comprises six sub-indices. It 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: slump (below -1),

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balance (between -1 and 0), boom (between 0 and 1), risk (between 1 and 2) and bubble (above 2).

an economic recovery in the second half of the year. If household incomes collapse in the course of the year – which we don't expect to happen – considerable price corrections can be expected in the high-priced risk regions, in particular.

UBS Swiss Real Estate Bubble Index

| Year | Period | Index | Trend |
|------|-----------|-------|-------|
| 2015 | Quarter 1 | 1.16 | ■ |
| | Quarter 2 | 1.17 | ■ |
| | Quarter 3 | 1.21 | ■ |
| | Quarter 4 | 1.23 | ■ |
| 2016 | Quarter 1 | 1.25 | ■ |
| | Quarter 2 | 1.21 | ■ |
| | Quarter 3 | 1.22 | ■ |
| | Quarter 4 | 1.23 | ■ |
| 2017 | Quarter 1 | 1.21 | ■ |
| | Quarter 2 | 1.27 | ■ |
| | Quarter 3 | 1.27 | ■ |
| | Quarter 4 | 1.30 | ■ |
| 2018 | Quarter 1 | 1.24 | ■ |
| | Quarter 2 | 1.16 | ■ |
| | Quarter 3 | 1.15 | ■ |
| | Quarter 4 | 1.11 | ■ |
| 2019 | Quarter 1 | 1.10 | ■ |
| | Quarter 2 | 1.11 | ■ |
| | Quarter 3 | 1.20 | ■ |
| | Quarter 4 | 1.26 | ■ |
| 2020 | Quarter 1 | 1.30 | ■ |

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

Source: UBS

Sustainability of the price level is questionable

No significant price correction is to be expected in the market average. The financing conditions are tempting and the cost benefits of owning your own home compared with renting are still too great in many regions.

However, there may be isolated corrections to some exaggerations. Whether some of the ambitious valuations in the market as a whole will be sustainable depends on

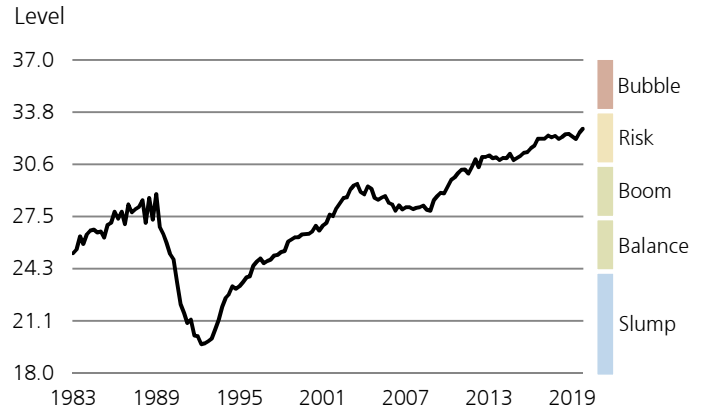
Additional information: Adjustment to the data basis

The aim of the quarterly *UBS Swiss Real Estate Bubble Index* is to reflect both long-term imbalances and short-term signs of overheating. So far, the asking price indices of Wüest Partner were used to calculate the real estate bubble index. These asking price-based house price indices started to increasingly deviate from the average of all price indices (asking prices indices and transaction price indices) in the last three years. On average the house prices according to all available indices rose by just short of 6 percent since 2017, while the asking price indices fell by 1.5 percent. A gap of this magnitude might well close again over the course of the cycle, but it makes it impossible to achieve an accurate market assessment of the risks on the owner-occupied market. This is the reason why the composite index will now be used to calculate the sub-indices “house prices to income” and “house prices relative to consumer prices”. The composite index – compiled as the average of the most important price indices available since 2000 – should reflect the market development more closely than any single index. This adjustment is made retrospectively from the beginning of the price cycle in 2000. Due to data availability, the period from 1980 to 2000 will still be calculated using the asking price index. This adjustment led to a rise in the index of around 30 index points compared to the previous quarter. The imbalances have been growing again since 2019. The new data basis doesn't change the fundamental assessment that the owner-occupied market is overvalued, but that there are few risks of severe corrections.

Sub-indexes of the UBS Swiss Real Estate Bubble Index

Home prices to annual rents

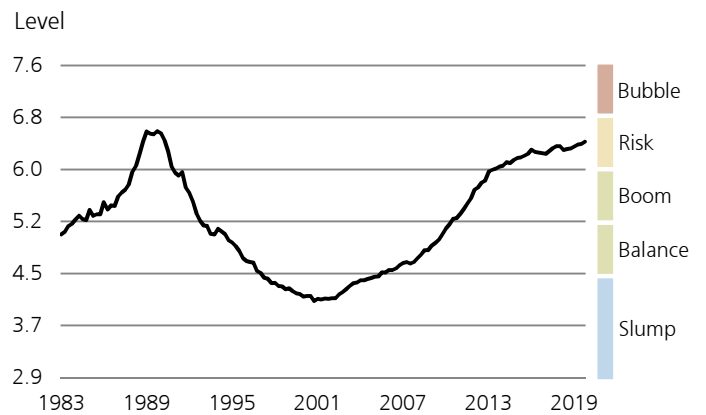
An above-average price-to-rent ratio indicates a high dependency on sustained low interest rates or implies expectations of price increases.



Sources: SNB, UBS

Home prices to household income

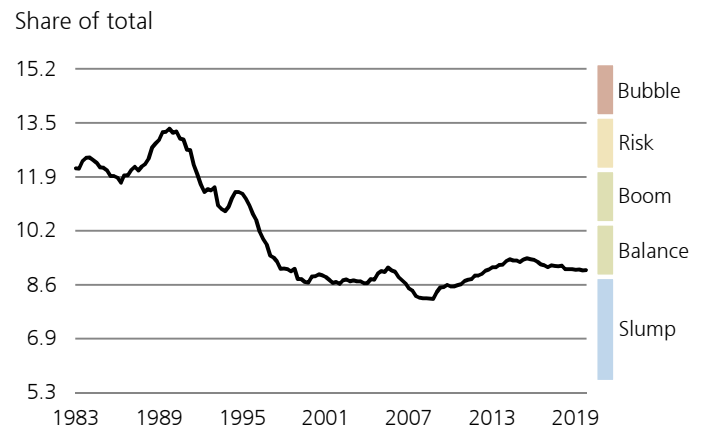
The indicator shows whether the price behavior of the owner-occupied housing market is supported by a change in household income. A decoupling of prices from average household income can be interpreted as a sign of interest rate risks.



Sources: SNB, FSO, UBS

Construction relative to gross domestic product (GDP)

The construction sector gaining weighting within the national economy can signal an overheating of the real estate market.

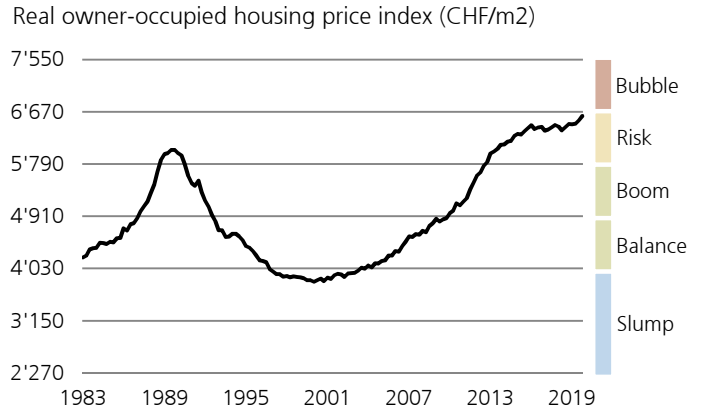


Sources: SECO, FSO, UBS

Sub-indexes of the UBS Swiss Real Estate Bubble Index

Home prices relative to consumer prices

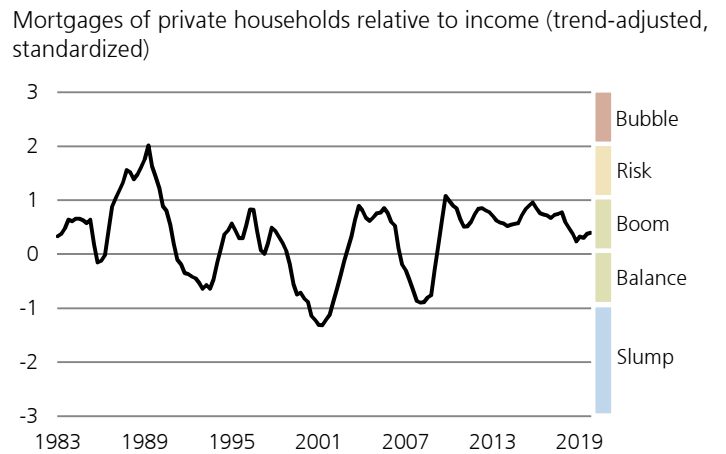
Over the long term, owner-occupied housing prices are likely to relate to construction costs and general inflation. A sharp and lasting increase in inflation-adjusted owner-occupied housing prices is thus a warning signal for a possible correction.



Sources: SNB, FSO, UBS

Mortgage volume relative to disposable income of private households

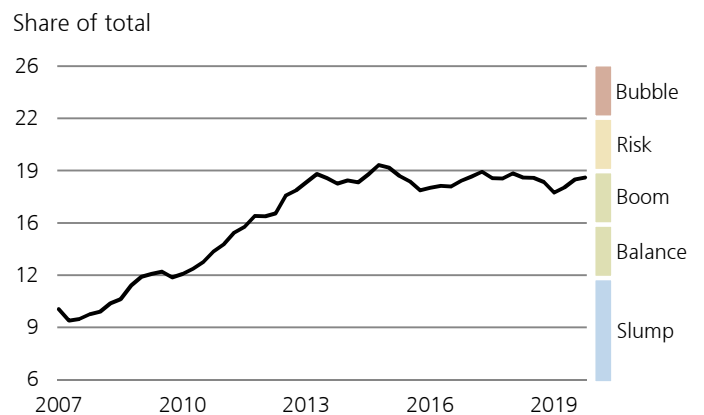
Any sharp growth in mortgage debt is a clear indication of the owner-occupied housing market overheating. If interest rates rise or owner-occupied housing prices correct, high household debt increases the negative consequences for the national economy.



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.

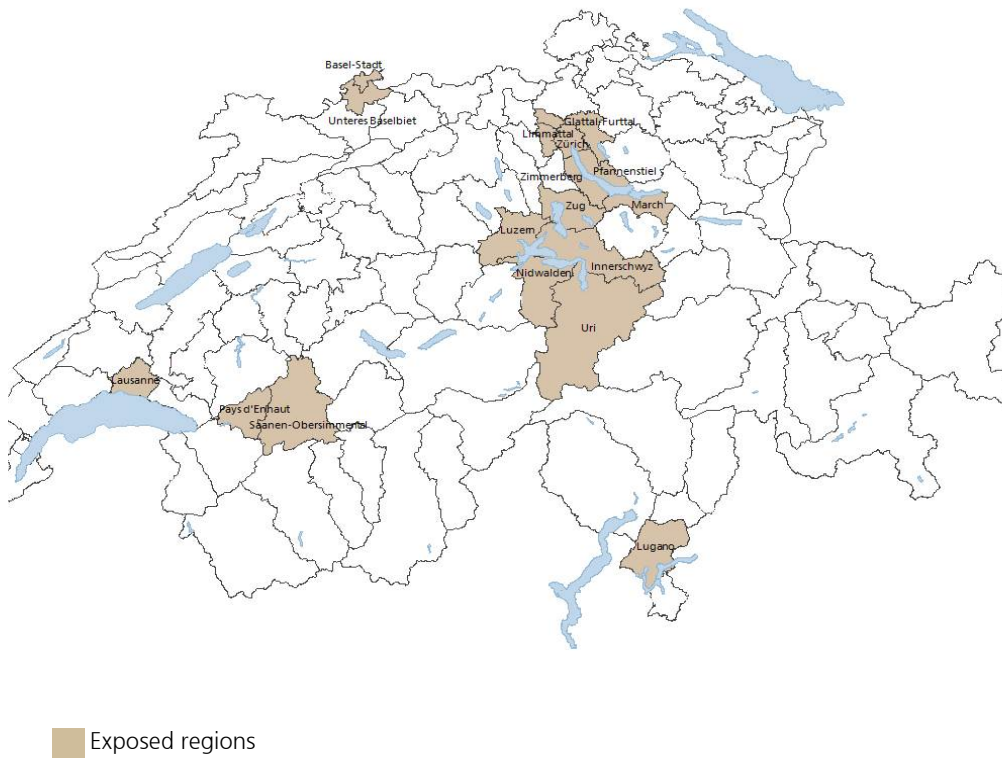


Source: UBS

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-to-income ratio, the local price-to-rent ratio and the long-term price development of owner-occupied 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.

Risk regions in the Swiss residential real estate market



Source: UBS

Appendix

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Version 01/2020. CIO82652744

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