

UBS Swiss Real Estate Bubble Index 3Q 2021

UBS Swiss real estate bubble index

Authors: Matthias Holzhey, Economist, UBS Switzerland AG; Maciej Skoczek, CFA, CAIA, Economist, UBS Switzerland AG; Katharina Hofer, Economist, UBS Switzerland AG; Claudio Saputelli, Economist, UBS Switzerland AG

- The *UBS Swiss Real Estate Bubble Index* measures the risk of a real estate bubble in the Swiss residential housing market.
- The index recorded a sharp decline to 1.34 points in the third quarter of 2021. This was driven by a surge in economic output in the first half of 2021 and should therefore be put into perspective.
- According to our forecast, the index is likely to rise again in the next quarter and the imbalances are likely to be larger than before the pandemic.



Source: Mauro Mellone, UBS

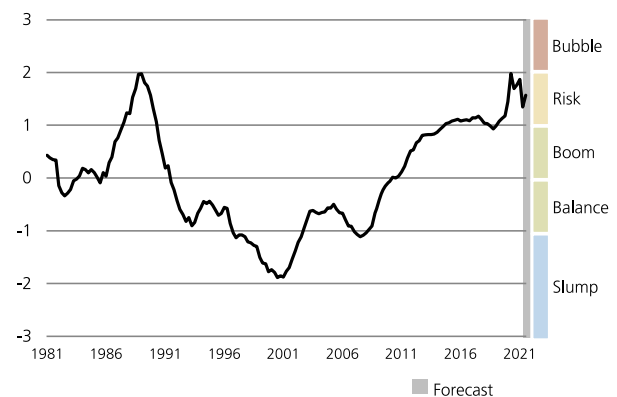
The *UBS Swiss Real Estate Bubble Index* declined sharply from 1.87 to 1.34 points in Q3 2021, remaining in the risk zone. The dip in the index was driven by the strong economic recovery in the first half of 2021 and therefore needs to be put into perspective. The highly volatile economic performance in recent quarters led to extreme fluctuations in the model-based estimate of real estate bubble risk.

Affordability of residential property declines

The medium-term increase in imbalances is due to sharp price increases. In the third quarter of 2021, owner-occupied housing prices increased by nearly 6 percent compared to the previous year, the largest increase since 2013. Since the momentum of household income failed to keep pace with prices, the affordability of residential property deteriorated.

This is causing household debt to rise. Thus, the volume of outstanding mortgages held by private households is currently more than 3 percent higher than a year ago. This increase may seem low given the current strong economic climate, but it is clearly above the average of the last five years. A sustained acceleration would have to be interpreted as a clear warning signal.

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 weighted average of standardized indicators, using primary component analysis, and shows the deviation in standard deviations from the average, which is standardized to zero. The index uses the following classification: Slump (below -1), Balance (from -1 to less than 0), Boom (from 0 to less than 1), Risk (from 1 to less than 2) and Bubble (2 and upwards).

While owner-occupied housing prices rose sharply, market rents fell by 2.7 percent in the third quarter of 2021 compared to the previous year. The average price-to-rent ratio climbed above 34, indicating a very high dependency of owner-occupied housing prices on low interest rates. Despite low returns on buy-to-let investments, demand for buy-to-let loans increased slightly last quarter, contributing to the increase in market imbalances.

Sharply rising interest rates could end the boom

The high demand for owner-occupied homes is supported to a large extent by historically low mortgage rates. On average, home buyers benefit from around 10 to 15 percent lower occupancy costs compared with tenants of a comparable dwelling. However, an increase in interest rates on 10-year fixed-rate mortgages from the current level of around 1.2 percent to 1.6 percent would be enough to cause the cost advantage to disappear and demand for owner-occupied homes to fall.

Given the decline in inflation over the next few quarters, the risk of sharply rising interest rates is currently manageable. This should keep the momentum of owner-occupied housing prices elevated for the time being. We expect the *UBS Swiss Real Estate Bubble Index* to rise to 1.57 points in the fourth quarter of 2021. The risks on the residential housing market will therefore be significantly higher than before the pandemic. This forecast of the index level was introduced due to the current volatility of the data (see comment below).

Comment: Business restrictions due to COVID-19 continue to cause considerable volatility in economic performance. This leads to major fluctuations in our model-based assessment of the real estate bubble risk for the Swiss residential housing market. Due to this volatility, we also present, for the time being, the expected trend in the UBS Swiss Real Estate Bubble Index until the end of the year based on our forecasts for the performance of the economy and the real estate market.

UBS Swiss Real Estate Bubble Index

Year	Period	Index	Trend
2016	Quarter 1	1.11	■
	Quarter 2	1.08	■
	Quarter 3	1.10	■
	Quarter 4	1.10	■
2017	Quarter 1	1.08	■
	Quarter 2	1.14	■
	Quarter 3	1.14	■
	Quarter 4	1.17	■
2018	Quarter 1	1.11	■
	Quarter 2	1.04	■
	Quarter 3	1.03	■
	Quarter 4	0.99	■
2019	Quarter 1	0.93	■
	Quarter 2	0.99	■
	Quarter 3	1.08	■
	Quarter 4	1.13	■
2020	Quarter 1	1.17	■
	Quarter 2	1.45	■
	Quarter 3	1.98	■
	Quarter 4	1.69	■
2021	Quarter 1	1.76	■
	Quarter 2	1.87	■
	Quarter 3	1.34	■
	Quarter 4	1.57	■

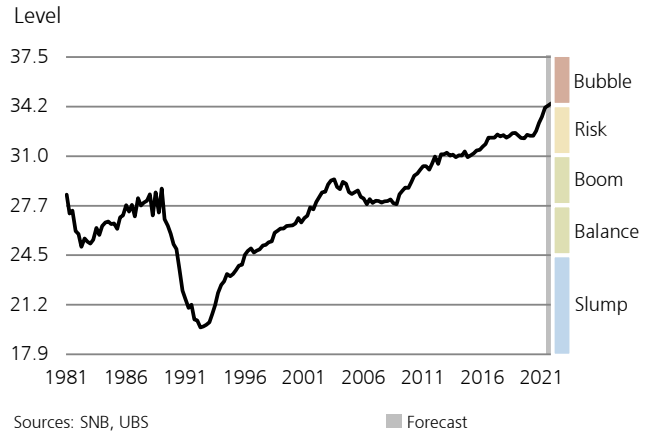
- Increase compared to the previous quarter
- Decrease compared to the previous quarter
- Unchanged
- Forecast

Source: UBS

Sub-indexes of the UBS Swiss Real Estate Bubble Index

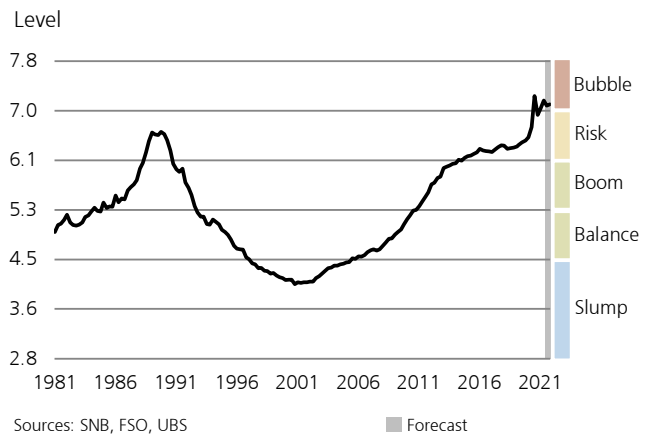
Home prices to annual rents

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



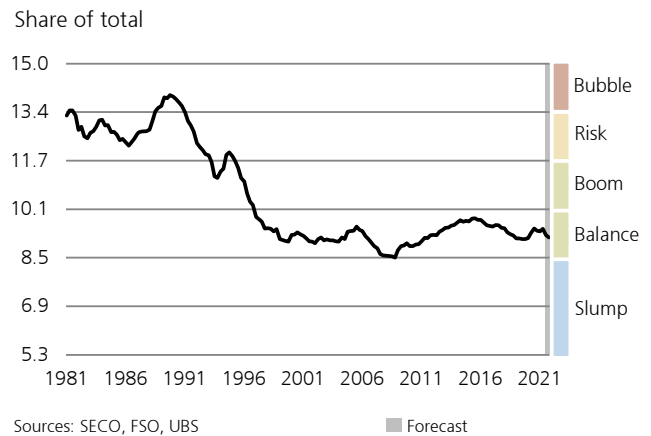
Home prices to household income

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.



Construction relative to gross domestic product (GDP)

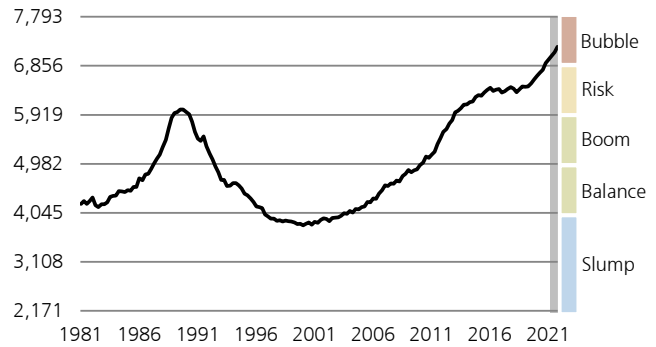
The construction sector gaining weighting within the national economy can signal an overheating of the real estate market.



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.

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



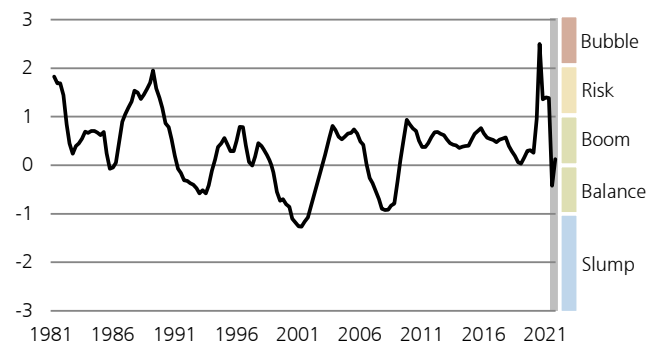
Sources: SNB, FSO, UBS

Forecast

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.

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



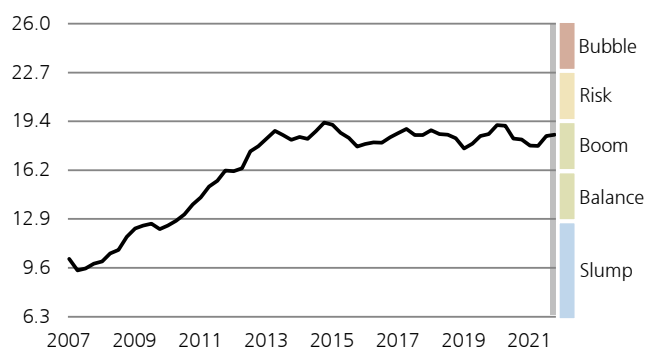
Sources: SNB, FSO, UBS

Forecast

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.

Share of total



Source: UBS

Forecast

Regional risk map

The regional risk map shows the regions with the most pronounced risks in the housing market. Regional risks are divided into fundamental risks (owner-occupied housing prices are decoupled from household income and rental price levels), overheating risk (significant excess demand causes prices to overshoot) and liquidity risk (high supply with low demand makes sales difficult). Currently, the fundamental and overheating risks are highest in the major centers of Zurich, Basel, Geneva and Lausanne. Liquidity risks exist in parts of Valais, Ticino and the canton of Neuchâtel.

Risk regions in the Swiss residential real estate market



- Fundamental risk
- Overheating risk
- Liquidity risk

Source: UBS

Appendix

UBS Chief Investment Office's ("CIO") investment views are prepared and published by the Global Wealth Management business of UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS").

The investment views have been prepared in accordance with legal requirements designed to promote the **independence of investment research**.

Generic investment research – Risk information:

This publication is **for your information only** and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. The analysis contained herein does not constitute a personal recommendation or take into account the particular investment objectives, investment strategies, financial situation and needs of any specific recipient. It is based on numerous assumptions. Different assumptions could result in materially different results. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this document were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any forecasts, estimates and market prices indicated are current as of the date of this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria.

In no circumstances may this document or any of the information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. By receiving this document and the information you will be deemed to represent and warrant to UBS that you will not use this document or otherwise rely on any of the information for any of the above purposes. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information.

Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein.

This material may not be reproduced or copies circulated without prior authority of UBS. Unless otherwise agreed in writing UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. For information on the ways in which CIO manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit www.ubs.com/research. Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

Options and futures are not suitable for all investors, and trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Prior to buying or selling an option, and for the complete risks relating to options, you must receive a copy of "Characteristics and Risks of Standardized Options". You may read the document at <https://www.theocc.com/about/publications/character-risks.jsp> or ask your financial advisor for a copy.

Investing in structured investments involves significant risks. For a detailed discussion of the risks involved in investing in any particular structured investment, you must read the relevant offering materials for that investment. Structured investments are unsecured obligations of a particular issuer with returns linked to the performance of an underlying asset. Depending on the terms of the investment, investors could lose all or a substantial portion of their investment based on the performance of the underlying asset. Investors could also lose their entire investment if the issuer becomes insolvent. UBS Financial Services Inc. does not guarantee in any way the obligations or the financial condition of any issuer or the accuracy of any financial information provided by any issuer. Structured investments are not traditional investments and investing in a structured investment is not equivalent to investing directly in the underlying asset. Structured investments may have limited or no liquidity, and investors should be prepared to hold their investment to maturity. The return of structured investments may be limited by a maximum gain, participation rate or other feature. Structured investments may include call features and, if a structured investment is called early, investors would not earn any further return and may not be able to reinvest in similar investments with similar terms. Structured investments include costs and fees which are generally embedded in the price of the investment. The tax treatment of a structured investment may be complex and may differ from a direct investment in the underlying asset. UBS Financial Services Inc. and its employees do not provide tax advice. Investors should consult their own tax advisor about their own tax situation before investing in any securities.

Important Information About Sustainable Investing Strategies: Sustainable investing strategies aim to consider and incorporate environmental, social and governance (ESG) factors into investment process and portfolio construction. Strategies across geographies and styles

approach ESG analysis and incorporate the findings in a variety of ways. Incorporating ESG factors or Sustainable Investing considerations may inhibit the portfolio manager's ability to participate in certain investment opportunities that otherwise would be consistent with its investment objective and other principal investment strategies. The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered by the portfolio manager, and the investment opportunities available to such portfolios may differ. Companies may not necessarily meet high performance standards on all aspects of ESG or sustainable investing issues; there is also no guarantee that any company will meet expectations in connection with corporate responsibility, sustainability, and/or impact performance.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

USA: This document is not intended for distribution into the US and / or to US persons.

For country information, please visit ubs.com/cio-country-disclaimer-gr or ask your client advisor for the full disclaimer.

Version B/2021. CIO82652744

© UBS 2021. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.