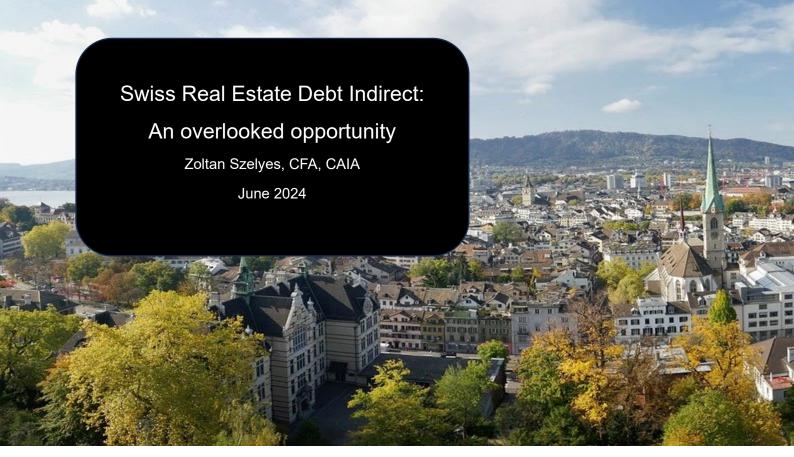


For qualified and institutional investors in Switzerland only.

Due to the focus on residential real estate (Lex Koller), this document is aimed at Swiss residents.



- The Swiss mortgage market has an outstanding volume of around CHF 1,250 billion, while indirect real estate debt vehicles currently account for an investment volume of CHF 11.1 billion (<1% market share).</li>
- Real estate debt stands for real estate loans as an investment. Due to loans secured by liens, a cautious lending policy and limited volatility in real estate values, we consider the default risks in Switzerland to be low. The average LTVs for senior mortgages are below 60%, and 75% for subordinated loans.
- Products with a focus on senior mortgages can currently generate net income returns of around 2%, products with a focus on subordinated mortgages between 5% and 7%.

- Investors must take interest rate (duration), liquidity and default risks into account when investing.
- The quality of investment management, i.e. how well the mortgages are valued and structured with collateral, plays a decisive role.
- Attractive relative yield differentials support the investment prospects of Swiss real estate debt investments.
  During the negative interest rate phase, the distribution yield of real estate funds was on average 200 basis points higher than that of mortgage products.
  Today, the premium is only 60 to 70 bps.
- Macro Real Estate AG can assist investors and investment managers with investment themes and strategic decisions in Real Estate Debt Indirect.



Real estate loans are an integral part of most real estate transactions. Investors use debt capital to optimize returns and to efficiently manage equity in the investment portfolio.

#### What is real estate debt?

Real estate debt refers to real estate loans as an investment. Investors directly or indirectly assume the role of lender and earn a return on their investment through interest and/or arrangement fees (see box on the next page for an overview).

Historically, real estate loans were already an investment category for insurance companies in the 19th century, around 100 years before Swiss real estate funds were created.

Various Swiss pension funds have also been engaged in granting mortgages for decades, mostly for residential property.

With real estate debt, we distinguish between two types of instruments. On the one hand, investors can gain exposure via bonds. These may be bonds issued by Swiss real estate companies or the securitization of secured loan claims. In contrast to mortgages, the former are unsecured claims. The latter have not yet gained in importance in Switzerland, as mortgage bonds and bank deposits were the more cost-effective refinancing options for banks.

## Managed indirect real estate debt products

On the other hand, it is possible to invest indirectly in mortgages via actively managed real estate debt vehicles. Similar to real estate funds and investment foundations, there is also an investment manager in this setup who actively manages a portfolio according to diversification and portfolio management criteria and is regulated by the FINMA.

Real estate debt funds have become increasingly important outside Switzerland in recent years. According to INREV, 40% of the capital raised by institutional investors in Europe last year flowed into real estate debt products. This is a historic record and shows the increasing attractiveness of this investment segment internationally.

# Swiss mortgage market in figures

The volume of outstanding Swiss mortgages currently stands at around CHF 1,250 billion. This is a significant volume and corresponds to 156% of Switzerland's current annual GDP.

As Table 1 shows, the majority of mortgages are held on the banks' balance sheets. According to data as at the end of 2022, insurance companies and pension funds have mortgage receivables totaling CHF 64 billion.

Table 1: Outstanding mortgage volume in Switzerland

Group	Outstanding mortgage claims in CHF bn	Real estate investments in CHF bn	Data per
Banks	1181	not applicable	March 2024
Insurance companies	37	49	Dec 2022
Pension funds	27	211 (CH), 40 (int.)	Dec 2022
Total	<u>1245</u>		

Source: SNB, SVV, BFS

Insurance companies state that they hold CHF 37 billion in mortgages. We do not have any information on the breakdown between abroad and Switzerland, but we assume that a large proportion of these are in Switzerland.

Swiss pension funds held mortgages worth CHF 27 billion at the end of 2022, including over CHF 9 billion indirectly.

#### Investment vehicles in Swiss real estate debt

We divide the indirect investment products in Swiss real estate debt into three categories: Swiss investment foundations with exposure to senior mortgages, Swiss funds with exposure to senior mortgages and Swiss funds investing in subordinated mortgages.

According to our research, the current total indirect investment volume is CHF 11.1 billion. This corresponds to a market share of less than 1%. Table 2 shows our database of indirect Swiss real estate debt products.

Table 2: Indirect investment products in Swiss mortgages

_		AuM in
Name	Group	mn CHF
AXA Hypotheken Schweiz	Investment foundation	1'893
Swisscanto Hypotheken	Investment foundation	1'693
UBS AST Hypotheken	Investment foundation	1'674
AXA Vorsorge Hypotheken Schweiz	Investment foundation	1'555
CSA Hypotheken	Investment foundation	1'154
Zurich AST Hypotheken	Investment foundation	369
Swiss Life Hypotheken Schweiz	Investment foundation	216
Avenirplus Hypotheken Schweiz	Investment foundation	189
Anlagestiftung Winterthur Hypotheken	Investment foundation	164
Helvetia Hypotheken	Investment foundation	133
Avadis Hypotheken	Investment foundation	90
IST 2 Wohnbauhypotheken Schweiz	Investment foundation	89
Swiss Mortgage Fund I (Tavis Capital)	Fund (senior mortgages)	927
Swiss Mortgage Fund II (Patrimonium)	Fund (senior mortgages)	283
Swiss Life ESG Mortgage Fund	Fund (senior mortgages)	421
Generali Swiss Mortgage Fund	Fund (senior mortgages)	27
One Mortgage Fund	Fund (senior mortgages)	launching
One RE Debt Fund	Fund (junior mortgages)	183
Daneo Swiss RE Debt Fund	Fund (junior mortgages)	39
Tavis Subordinated Mortgages Fund	Fund (junior mortgages)	launching
Total		11'097

Source: KGAST, Bloomberg, own research



# **Box: Comparison of key figures for Swiss mortgages**



	Senior (first lien)	Subordinated	Whole Loan
LTV	0% - 60%	60% - 75%	0% - 75%
Mortgage rate (gross)	2.3%	7.5% (Saron+500 bps)	3.4%
TER (estimation)	0.45%	1.5%	0.65%
Net income return for investors (estimation)	1.95%	5.0%	2.75%
Arrangement Fee for investors/ investment manager (estimation)	0%	1.5%	0.7%

Investors have the option of choosing between different risk/return profiles when investing in mortgages, which has an impact on the interest rate. We distinguish between traditional senior mortgages, subordinated mortgages and whole loans. All three options are secured by mortgage liens. The Whole Loan (sometimes referred to as Stretch Senior), which is less well known in Switzerland, refers to the lender covering both the senior and subordinate portions in a senior secured mortgage.

Arrangement fees, which are payable by the borrower (in contrast to the acquisition fees for real estate funds, which are borne by the investor), are a further source of income for the investor. Depending on the fund concept, however, these fees may accrue to the investment manager. In Switzerland, unlike abroad, no arrangement fees are charged for senior mortgages, but they are charged for subordinated mortgages and whole loans.

For investors in indirect real estate debt products, the total expense ratio (TER) and management fee must also be taken into account. The net return is the relevant figure, as these net returns accrue to the investors.

The investment foundations segment accounts for CHF 9.2 billion, funds focusing on senior mortgages for CHF 1.7 billion and funds with junior mortgages for CHF 0.2 billion.

This compilation is probably not complete, as this report is, to our knowledge, the first such comprehensive compilation of the sector in Switzerland. We have tried to include only those for which reliable figures are available.

Investment foundations are the largest group. Most of these products were launched in the 2010s. CSA mortgages, which have existed since 1984, are an exception.

Mortgage investment foundations focus primarily on granting residential mortgages. These are owner occupied residential mortgages or mortgages for rental properties. Some products that also invest in mortgages secured on commercial properties.

Funds investing in senior mortgages were initially initiated by a Credit Suisse balance sheet transaction. Swiss Mortgage Fund I is managed by Tavis Capital and Swiss Mortgage Fund II by Patrimonium. Both products were launched with mortgages acquired from Credit Suisse's balance sheet.

According to our information, there are also two funds that invest in subordinated mortgages. These are managed by Property One and Artemon.

We are not aware of any funds or investment foundations that have whole loans as a strategy. According to our information, a further fund for senior and junior mortgages is currently being launched.

# Yield considerations and mark-to-market valuations

Investment vehicles that invest in real estate debt receive the mortgage interest, which is - after



deduction of the management fees - distributed to the investors or reinvested.

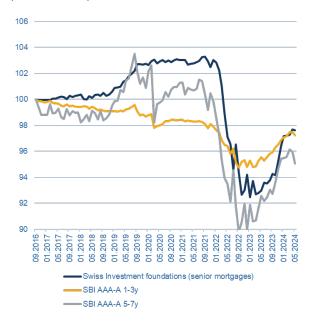
The vehicles can invest in Saron mortgages (variable interest rate) or fixed-rate mortgages. Saron mortgages involve little duration risk and are held at nominal value, while fixed-rate mortgages are held at market value. The latter are comparable to bonds whose secondary market price fluctuates with the development of interest rates.

There are no official indices for the performance of mortgage investment foundations. Such vehicles use different SBI (Swiss Bond Index) indices as benchmarks, depending on the duration of the mortgage pool.

We have therefore calculated an equally weighted index of mortgage AST (investment foundations) and compared this with a bond index with a shorter and a longer duration (Fig. 1).

Fig 1: Total returns in mortgages vs bond benchmarks

(Q3 2016=100)



Source: KGAST, Bloomberg, own research

Lke fig. 1 shows, indirect real estate products have reflected interest rate changes in a similar way to bonds. The adjustment of negative interest rates initially led to significantly lower valuations. However, the products benefited again in 2023 from slightly lower long-term interest rates and had a successful year in 2023.

On the one hand, valuations at market value lead to a higher volatility of the NAVs than if they were held at nominal value. On the other hand, it has the advantage that the valuations of the investment vehicles already reflect the interest rates currently achievable on the market. Effective net interest rates were around 2.0% as at the end of April 2024.

#### Liquidity risks

In addition to the duration considerations for fixedrate mortgages described above, investors must take two further risks into account in their investment decision.

Firstly, mortgages are illiquid. This means that the liquidity management of the products is crucial. This is also due to the fact that the secondary market for mortgages is not well developed and illiquid. It is important that redemptions can be restricted for open-ended products so that the mortgages do not have to be sold at an unfavorable time at a greater discount to the market value.

The return periods for such products are usually one year. In terms of liquidity, this is a disadvantage compared to investments in bonds, which are liquid on a daily basis. Investors must therefore also price in an illiquidity premium.

#### Default risks

Secondly, the default risks associated with mortgages are an important factor. As the claims are secured by mortgage liens, the security plays an important role. The average loan-to-value ratios for most senior mortgage products are below 60% (exception: owner occupied resi mortgages). In view of the low volatility of Swiss real estate values, we see correspondingly low default risks for such products.

A distinction must also be made between the risk of the underlying real estate strategy. The risks are significantly lower for rented existing properties than for construction projects or bridging finance.

Affordability is also an important factor. The net cash flows generated from the properties must be able to cover the debt service. In the Anglo-Saxon countries, this is referred to as the DSCR (Debt Service Coverage Ratio). A ratio of at least 1.25x is also a must for subordinated mortgages. For residential mortgages, affordability is still calculated with an interest rate of 5%, which is very conservative.

There are no statistics on mortgage default rates in Switzerland. In our estimation, the losses over the last twenty years have been very low. The 1990s were an exception, when credit problems even led to bank collapses. However, lessons were learned from this period and since then Switzerland has been characterized by cautious lending.

The subordinated mortgage products have a higher LTVs of 75% on average. The products listed here were not launched until 2021 and 2022. However,



they have come through the weaker phase of the Swiss real estate market well so far.

The two products have so far fulfilled their return promises and have had no defaults. However, the default risks tend to be higher here. Good investment managers are characterized by structuring mortgages that provide lenders with additional collateral in such cases.

Such products consequently compensate investors with a higher return of 5% to 7%.

Comprehensive due diligence is necessary before investing in any of these products. However, the quality of management plays an even greater role for subordinated mortgage products than for senior mortgages.

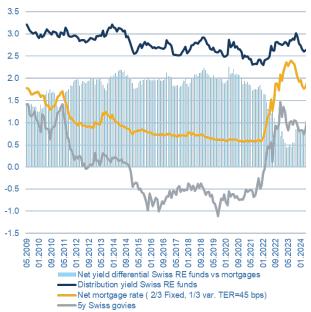
# Attractive relative yields for real estate debt

The relative return prospects are decisive for investors.

We compare the distribution yields of real estate funds with a calculated net income yield on Swiss senior mortgages, based on the assumption of a TER of 45 basis points and a portfolio that is invested 2/3 in fixed-rate mortgages and 1/3 in variable-rate mortgages.

During the phase of negative interest rates, real estate funds achieved a 2% higher distribution yield than mortgage investment foundations. You can currently also achieve almost 2% net with senior mortgages. This means that the yield differences are now only around 60 to 70 basis points in favor of real estate funds.

Fig 2: Net income returns



Quelle: SNB, Bloomberg, Macro Real Estate

Although there are no products that focus on "Whole Loans", you could currently achieve a net return of around 2.75% p.a. with such a strategy.

This is a slightly higher net income yield than for residential real estate funds, as calculated in the box on page 3.

One need also consider what happens in downside scenarios Due to the currently low LTVs of products focusing on senior mortgages, this return can be achieved even if real estate prices fall by up to 30%, while real estate funds would participate in such a downward movement.

#### Other structural support factors

Structural factors also support investors' prospects of acting as lenders. We see the following trends:

- Increasing regulation is leading to a decline in banks' appetite for risk, a trend towards lower LTVs and higher margins.
- The merger of the two big banks in Switzerland has left a significant gap in the offering of credit products.
- The management of banks' balance sheet risks leads to opportunities to acquire larger loan portfolios from banks.
- An environment of structurally higher global inflation supports higher interest rates for mortgages. We expect higher interest rates (3M Saron > 2%) in Switzerland in the medium term, even if the SNB could cut interest rates further in the short term.

## Conclusion

The indirect Swiss market for real estate debt currently stands at around CHF 11 billion. In view of the total outstanding mortgage volume of over CHF 1,250 billion and the underlying trends, we see further structural potential. Not only do we expect more products to be launched in the coming years and the opportunity set for investors to increase further, but we also expect the sector to evolve and become more transparent. Investors need standards for reporting and credit metrics.

Relative returns have become more attractive in absolute and relative terms. The relative yield comparison with the distribution yields of real estate products is convincing.

There are opportunities both for investors who focus on products with low loan-to-values and for those who prefer subordinated products. The inclusion of products that invest in subordinated mortgages can improve returns in the portfolio. However, such a decision also depends on the investor's appetite for risk. At the same time, duration risks must be



considered in the overall portfolio as part of the duration strategy.

There exist no products for whole loans. However, investors can synthetically construct such a portfolio by combining products on senior mortgages and subordinated mortgages.

The purpose of this paper is to provide an overview. Due to the different exposures and set-ups for the management of mortgages, comprehensive due diligence is necessary.

Macro Real Estate can support investors and investment managers as required, as we can also contribute our international perspective and our experience during the financial crisis (successful management of the SNB stabilization fund) as well as our knowledge of the real estate market.



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