MOODY'S
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SECTOR PROFILE
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Contacts

Alexander Zeidler +44.20.7772.8713
VP-Sr Credit Officer
alexander.zeidler@moodys.com

Nicholas Lindstrom +44.20.7772.5332
Associate Managing Director
nicholas.lindstrom@moodys.com

Juan Pablo Soriano +34.91.768.8233
MD-Structured Finance
juanpablo.soriano@moodys.com

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Covered Bonds – Switzerland

Sector Update - Safe haven characteristics support high credit quality of Swiss Pfandbriefe and structured covered bonds

1.0 Highlights

This report provides an update on the key macroeconomic, legal, regulatory, sovereign, issuer, programme and performance trends affecting the Swiss covered bond sector.[1]

» **Sovereign and macroeconomic update:** Switzerland's safe haven status is supported by its strong economy, robust governance framework and low government debt levels. Household indebtedness is high but supported by high household wealth, albeit unequally distributed. House prices have grown at a steady pace to high levels but are supported by fundamentals, and loan performance is less sensitive to higher interest rates than in other countries.

» **Legal and regulatory update:** Switzerland has two types of covered bonds: Swiss Pfandbriefe, based on a dedicated covered bond law, and structured covered bond programmes set up by individual banks on a contractual basis. The Pfandbriefe setup is strong, with the two Pfandbrief issuers forming the 'first line of defense' as an owner bank default does not necessarily trigger the Pfandbrief issuer's insolvency. Switzerland's macroprudential rules are relatively loose compared to other countries.

» **Issuer and programme update:** At the end of 2021, a total of over CHF 155 billion (€150 billion, $167 billion) covered bonds were outstanding. We rate bonds from five programmes accounting for over 95% of outstanding volumes. All these programmes have the highest credit quality and are rated Aaa. Swiss Pfandbriefe, which account for over 90% of outstanding volume, reflect the strength of the Swiss banking system, and benefit from low leverage due to low loan-to-value ratios and high committed over-collateralisation (OC) levels. The outlook for the Swiss banking system is stable.

» **Performance trends:** In our modelling, we assume average cover pool losses of 14% for Swiss Pfandbriefe and structured covered bonds. Our loss assumptions for Swiss programmes are relatively low compared to the wider European covered bond market because of (1) high quality cover pools, which exclusively consist of residential mortgages and (2) limited interest rate and currency mismatches and (3) low refinancing risk. Swiss covered bond ratings have relatively low linkage to the credit quality of issuers; on average, issuers can be downgraded by four notches without triggering a TPI-driven downgrade of covered bonds.

2.0 Sovereign and macroeconomic update

2.1 Switzerland's sovereign Aaa credit rating reflects its wealthy, resilient and diversified economy

Our sovereign rating for Switzerland is Aaa, stable. The country's main credit strengths include (i) its open, highly diversified and competitive economy that produces a wide range of high value added goods and services, (ii) its stable, consensus-based political system and robust institutional framework and (iii) its low government debt and high debt affordability.

The main credit challenges for the Swiss sovereign are (i) long-term fiscal growth challenges due to population ageing and (ii) potential contingent liabilities stemming from the very large financial sector. The total assets of the Swiss banking sector are five times higher than Switzerland's annual GDP, compared to a factor of four in the UK, two in Germany and one in the USA. The risks have decreased as banks have built up their loss-absorption capacity and Swiss banks' asset quality is currently among the strongest in Europe.

Exhibit 1 shows key economic indicators for Switzerland. The economy returned to its pre-crisis levels at the end of 2021 and we expect growth in 2022 will be similar to 2021 and then normalize in the following years to low single-digit growth rates. Switzerland's vaccination take-up rates have been relatively low and a resurgence of COVID-19 variants remains a downside risk.

Exhibit 1
Key economic indicators for Switzerland

	2024 (Exp.)	2023 (Exp.)	2022 (Exp.)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Population (million)	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.4	8.3	8.2	8.1	8.0	8.0	7.9	7.8
GDP per capita (PPP basis, Thousand US$)	--	--	--	78.1	73.2	72.0	70.4	67.4	66.1	64.3	62.3	60.5	58.1	56.5	54.9
Real GDP (% change)*	1.7	1.8	3.2	3.5	-2.4	1.1	3.0	1.7	2.0	1.6	2.4	1.9	1.3	1.9	3.2
Inflation (CPI, % change Dec/Dec)*	1.0	0.7	0.9	0.8	-0.8	0.2	0.7	0.8	0.0	-1.3	-0.3	0.1	-0.4	-0.7	0.5
Unemployment Rate (%)	2.3	2.3	2.4	3.0	3.1	2.3	2.6	3.1	3.3	3.2	3.0	3.2	2.9	2.8	3.5
Nom. Exchange Rate vs 1 US$	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Current Account Balance / GDP	--	7.6	6.0	5.8	2.8	6.7	6.7	7.2	9.0	10.3	8.1	11.4	10.9	7.9	14.6

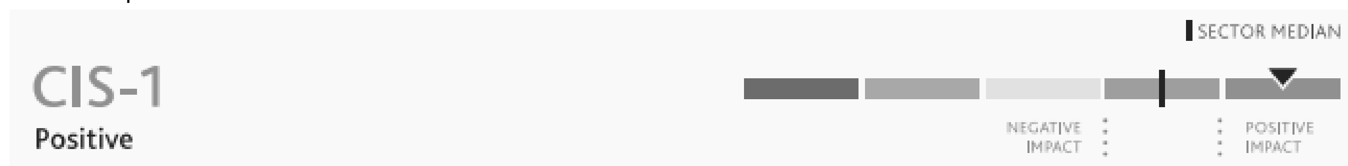
Source: Moody's Investors Service

On 26 May 2021, the Swiss government ended negotiations with the EU on the trade-related international framework agreement. The main points of contention were state aid provision, labour market protections and free movement of citizens. As a result, the existing bilateral agreements will lapse over time and Switzerland will not have any new access to the EU Single Market. Since the EU is Switzerland's largest export market, accounting for 41% of goods exports in 2020, the termination of negotiations is credit negative. However, we expect growth implications to become visible only over the long term.

Switzerland's ESG credit impact score is positive

Switzerland's ESG Credit Impact Score is positive (CIS-1), reflecting low exposure to environmental risk, mild social risks and very strong governance and forward-looking policymaking. This has a material positive impact on the sovereign rating.

Exhibit 2
Switzerland's ESG attributes have a positive impact on its rating
ESG credit impact score for Switzerland



Source: Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

For more details, see Government of Switzerland - Aaa stable, 30 November 2021

2.2 Macro profile is Strong+

Our assessment of Switzerland's macro profile is Strong+ (Exhibit 3), which is among the strongest profiles of the 30 European countries with active covered bond issuers.

Exhibit 3

Switzerland's macroeconomic profile is Strong+

The macro profile is a rating input used to determine each bank's Baseline Credit Assessment. It is designed to capture system-wide factors that are predictive of the propensity of banks to fail.

Source: Moody's Investors Service

Swiss banks benefit from Switzerland's economic strength, and its very strong institutions and governance framework. Switzerland's GDP per-capita ranks high in comparison to Aaa-rated peers; it is with $72,000 on a purchasing power parity basis between the USA ($63,000), Norway ($66,000) and Singapore ($101,000).

Switzerland has a safe haven status in the global financial architecture. Switzerland's external vulnerability is low against the backdrop of the country's large current-account surpluses. Switzerland has been accumulating substantial external assets, with its net-creditor position vis-à-vis the rest of the world amounting to over 80% of GDP, a significant stronger position than most peers.

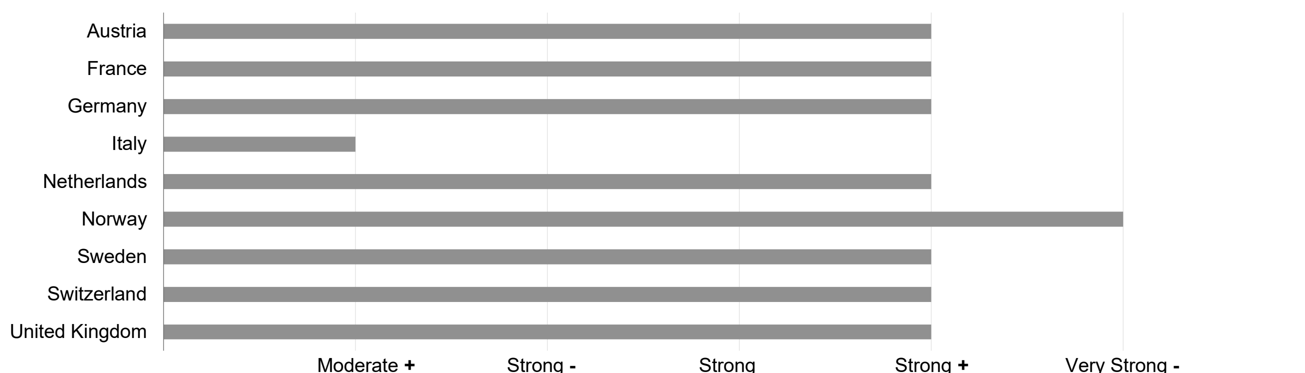
A key challenge facing the banking sector is high and rising household indebtedness (as further described in Section 2.5), although borrowers' capacity to service mortgages is currently strong.

For further details, see Banking: Switzerland's Macro Profile: Strong+, 29 March 2021.

We have selected a group of peer countries based on geographic proximity and similarities of housing and mortgage market characteristic. Their macro profile is typically positioned at the same level as Switzerland's macro profile, see Exhibit 4.

Exhibit 4

Strong+ is macro profile of most peer countries

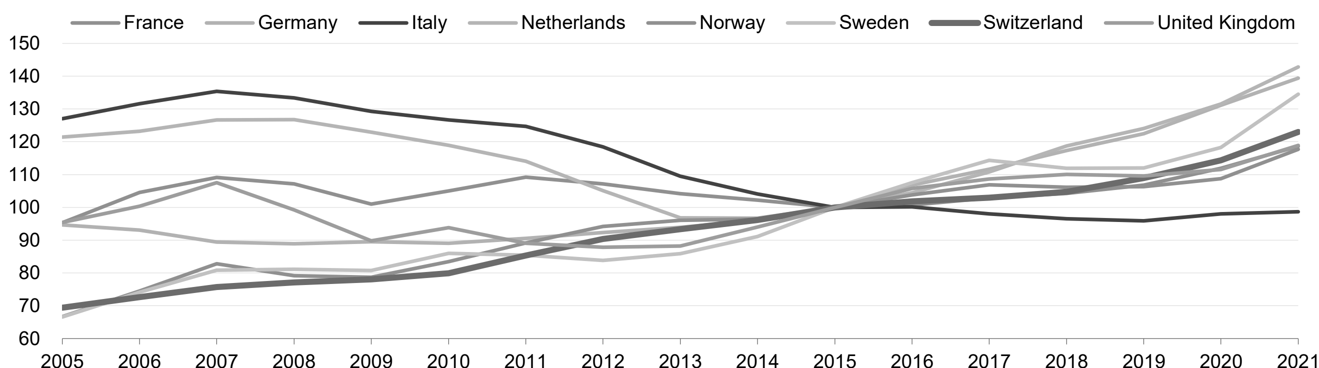


Source: Moody's Investors Service

2.3 High house prices are supported by fundamentals

Switzerland's house prices have grown steadily for many years, with a real house price growth in the low single-digits over the last five years, see Exhibit 5. In line with most other countries, house price growth and transaction activity accelerated in 2021, resulting in high single-digit house price growth numbers in Switzerland.

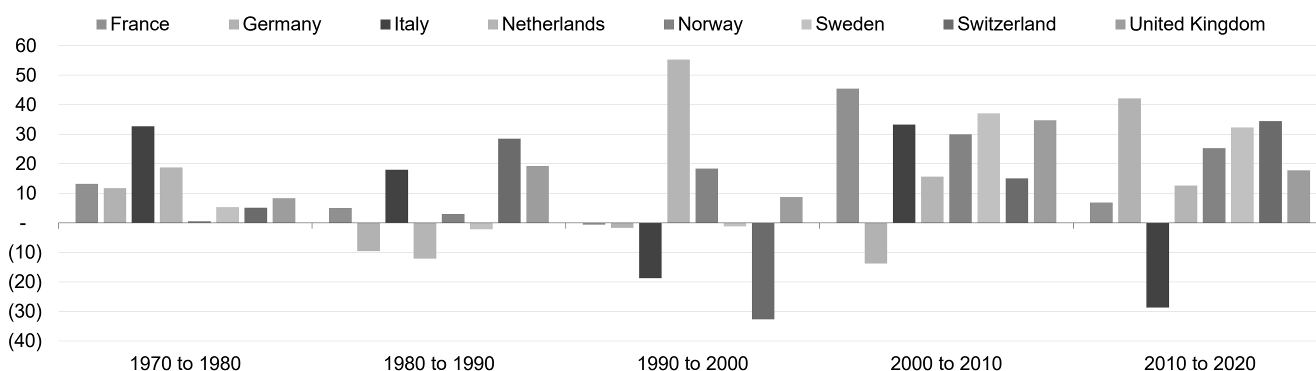
Exhibit 5
Steady house price growth in Switzerland
Residential real house price indices, 2015=100



Source: OECD. Real (deflated by consumer price index) house price index, mostly based on sales of newly-built and existing dwellings

Real house prices in Switzerland have risen in each decade since the 1970s, except the sharp downturn in the 1990s (Exhibit 6).

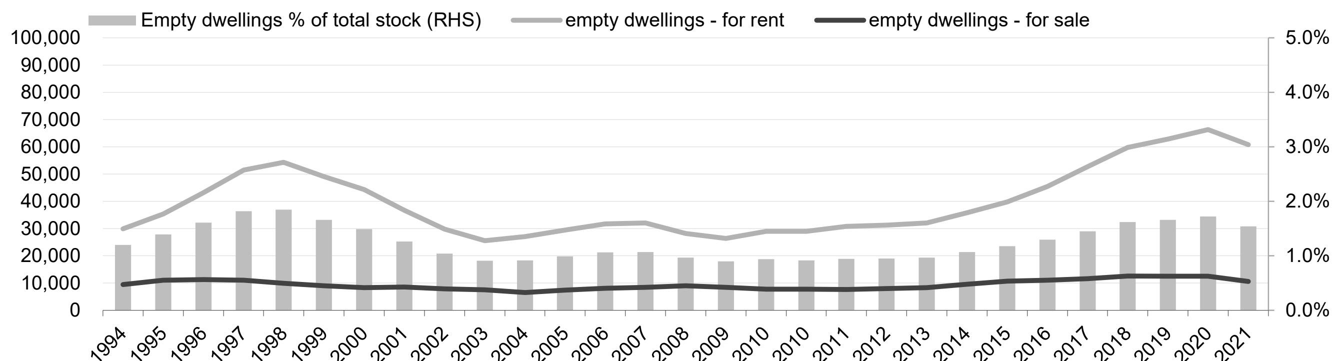
Exhibit 6
Swiss house prices have increased in four out of five decades
Residential real house price growth, based on indexed values



Source: OECD. Real (deflated by consumer price index) house price index, mostly based on sales of newly-built and existing dwellings

Swiss house prices are also supported by a relatively low vacancy rate, which stands at less than 2% of total stock, as Exhibit 7 shows. On the other hand, there has been a notable increase in empty rental dwellings (mainly apartments) over the last 12 years, a trend that only reversed in 2021.

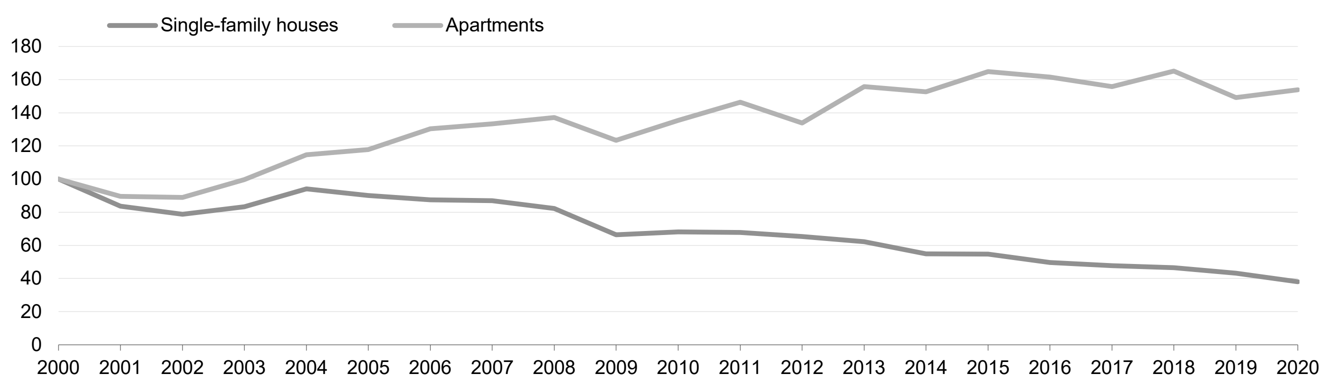
Exhibit 7
Overall low vacancy rate, but higher for apartments
Number of empty dwellings (LHS) and empty dwellings as % of total stock (RHS)



Source: Bundesamt fuer Statistik, Leerwohnungsziffer Zaehlung 2021

Housing completion rates show a split picture (Exhibit 8): While there has been a sustainable decline in the completion of single-family houses, there have been higher completion rates for apartments. The average apartment completion rates over the last five years was around 50% higher than the first five years of the millennium. There are particularly high completion rates in some regions with lower sustainable demand characteristics; for example, the completion rate is 100% higher in Tessin over the same time horizon.

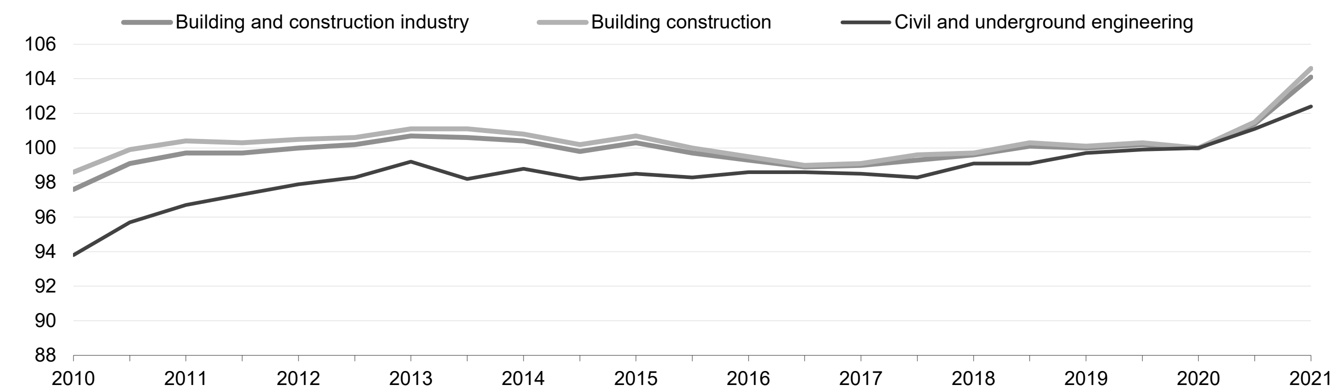
Exhibit 8
Since 2000, completion rates have fallen for single-family homes but risen for apartments
Indexed annual residential building completions, 2000 = 100



Source: Bundesamt fuer Statistik, Jaehrliche Wohnbaustatistik

Construction costs have been stable over much of the last decade but turned upwards in 2021 as input costs, notably for wood and steel, rose sharply (Exhibit 9). Rising constructions costs, coupled with capacity constrains in the construction sector, supports house prices for existing stock.

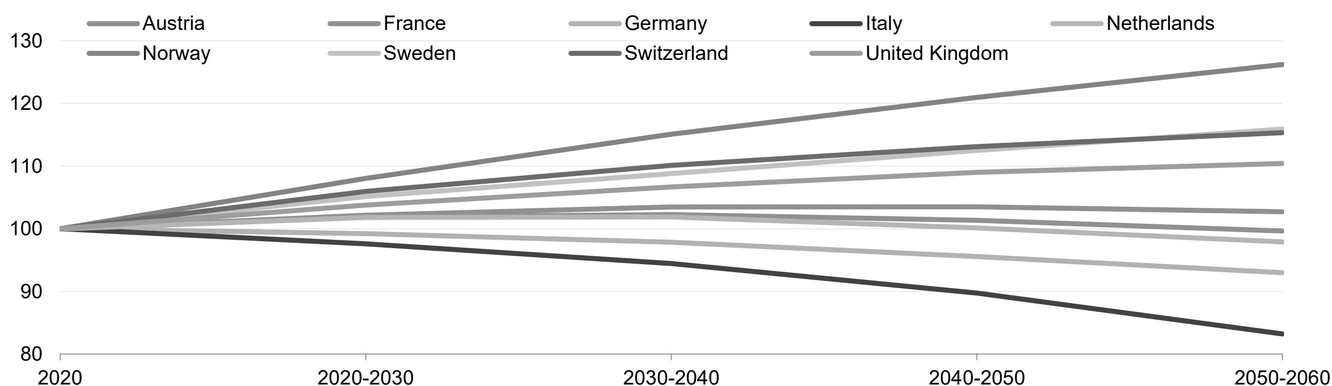
Exhibit 9
Building construction costs rose sharply in 2021
Indexed building construction price, 2020 = 100



Source: Bundesamt fuer Statistik, Schweizerischer Baupreisindex

Switzerland's population growth forecast is higher than most neighbouring countries, as Exhibit 10 shows. This will support long-term demand for housing and mitigate the economic impact of an ageing population.

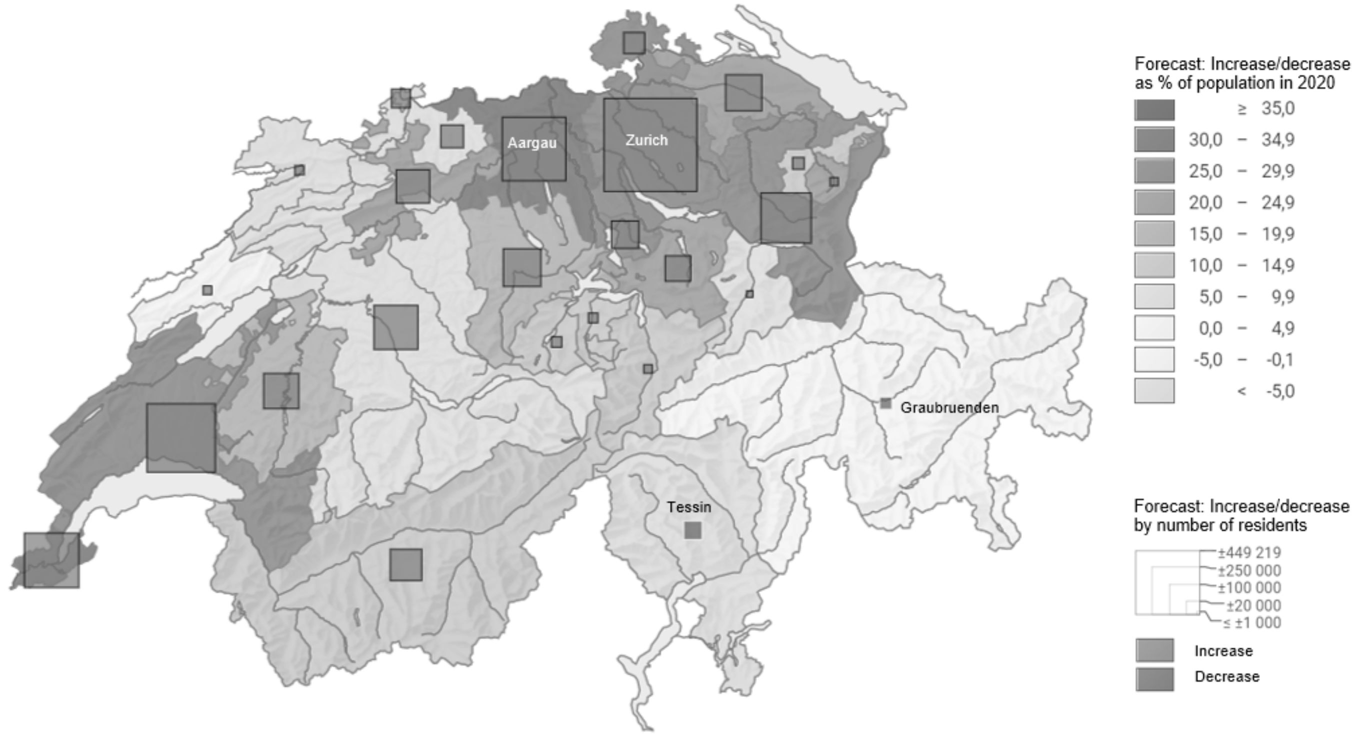
Exhibit 10
Population growth forecast until 2060
Switzerland shows better population prospects than neighboring countries



Based on average annual rate of population change, assuming medium fertility variant.
Source: United Nations, World Population Prospects 2019, Moody's calculations

However, within Switzerland, growth will vary considerably across regions. For example, population numbers will rise strongly in Aargau and Zurich but fall in Tessin and Graubruenden (Exhibit 11).

Exhibit 11
Projected population changes vary considerably by Swiss regions
Population development 2020 to 2050

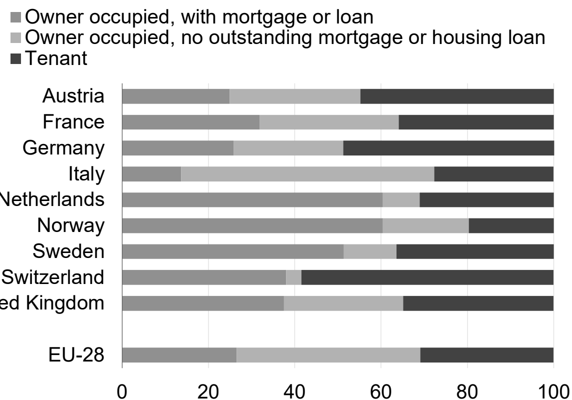


Assumes continued positive migration trends and freedom of movement with EU
Source: Bundesamt fuer Statistik, Statistischer Atlas der Schweiz 2020

2.4 Large share of Swiss population lives in rental accommodation

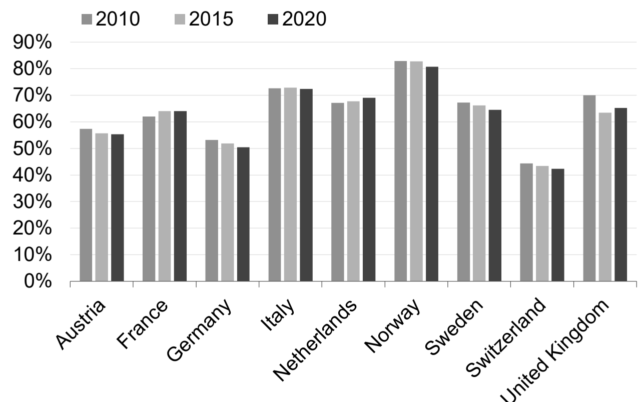
The owner-occupancy rate in Switzerland is around 40%, which is significantly lower than in peer countries, as Exhibit 12 shows. Moreover, Swiss owner-occupancy rates remain on a downward trend (Exhibit 13).

Exhibit 12
Owner occupancy in Switzerland is significantly lower than the euro area average...
Distribution of population by tenure status (% of population)



Tenure status 'Tenant' includes cooperatives, whereby each occupier initially buys a share in the cooperative and then subsequently pays rents that are typically below market as the cooperativeworks on a non-profit basis. The share of cooperatives is around 5% with higher shares in urban centres (for example, Zurich: 20%).
Source: Eurostat, Moody's Investors Service

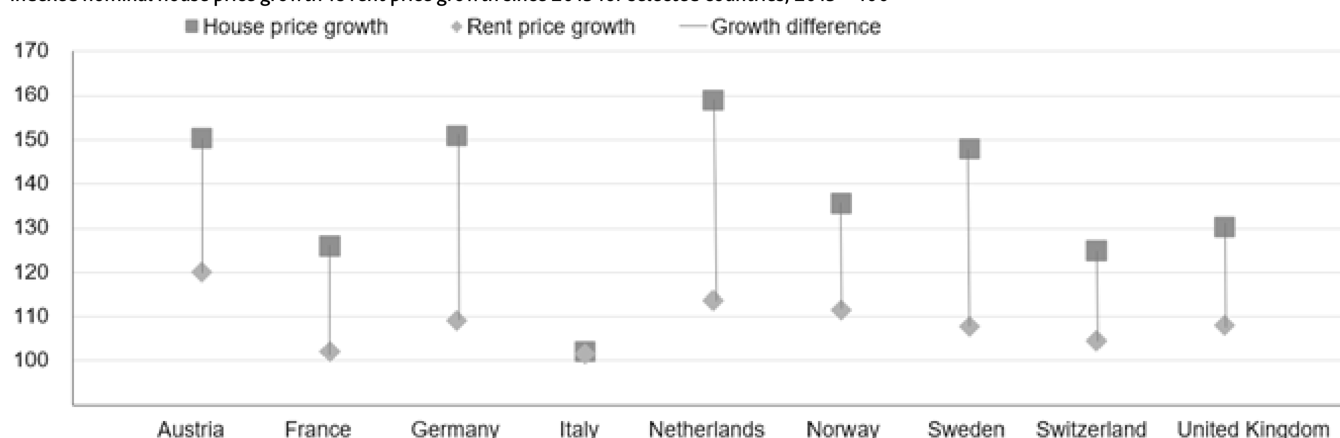
Exhibit 13
... and remains on a downward trend
Owner occupancy rates for selected countries (% of population)



Source: Eurostat, Moody's Investors Service

The large share of rental homes in Switzerland means that the sustainability of house prices is influenced by buy-versus-rent considerations. Since 2015, house price growth has outpaced rent price growth, albeit to a lesser degree than in most neighbouring countries (Exhibit 14).

Exhibit 14
Swiss house price growth has exceed rent price growth, albeit to a lesser extent than in peer countries
Indexed nominal house price growth vs rent price growth since 2015 for selected countries, 2015 = 100



Source: OECD

The residential investment property segment is showing some signs of imbalances, with less favourable supply-demand dynamics than in the single-family sector[2]. Property yields (i.e. the ratio of rental returns to market values) have compressed ever further in the low real interest rate environment; a trend seen across Europe. There is a growing share of properties in less prosperous regions of Switzerland where imputed costs would no longer be covered by rents if interest rates rose to 4%. The Swiss central bank estimates that apartments are overvalued by 5%-30% compared to fundamentals, depending on the future interest rate scenario.[3]

Looking at rental apartments and small multifamily housing, the share of residential mortgage loans with full and direct recourse to the property sponsor, providing the equity, is lower in Switzerland than in other European countries. This is because in some cases the rented dwelling is not held by the private individual (sponsor) directly but by limited liability companies. The limited liability companies are typically the mortgage borrower and recourse to the sponsor is not market standard.

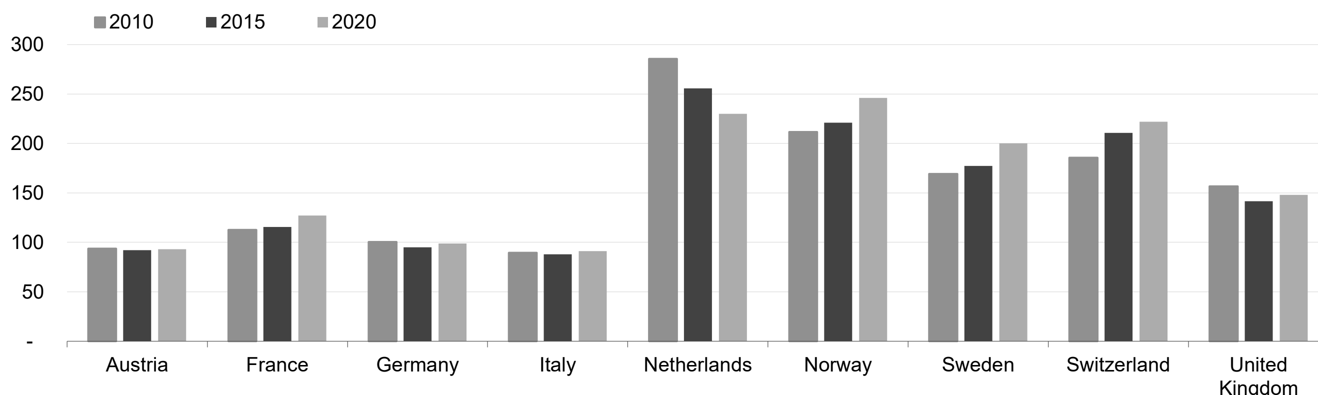
2.5 Household debt is high and rising, but capacity to service mortgages is strong

In recent years, Swiss household debt as a percentage of net disposable income has risen steadily (Exhibit 15). It now stands at over 220%, placing Switzerland among the highest leveraged countries globally and posing a risk to Swiss banks' asset quality.[4]

Exhibit 15

Household debt relative to income is high and rising

Household debt as % of household net disposable income for selected countries



Source: OECD

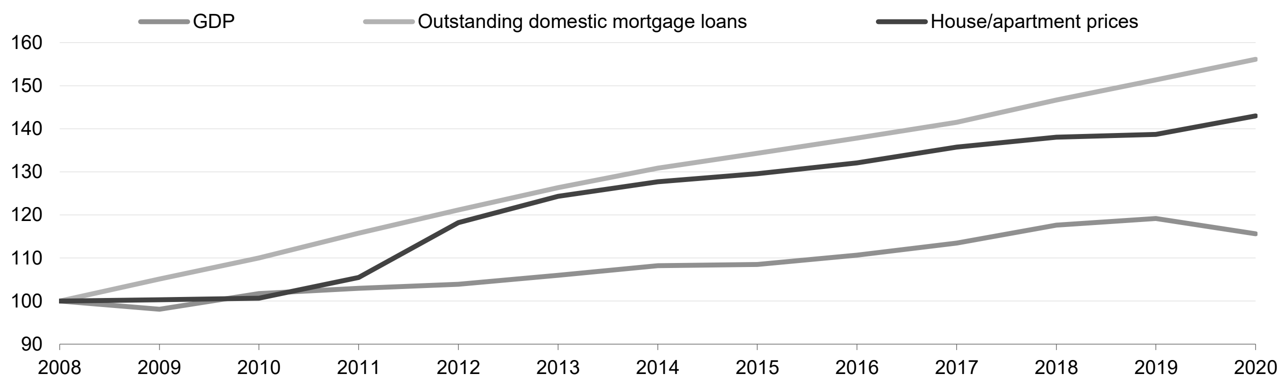
Over 90% of this Swiss household debt constitutes residential mortgage loans. Property owners typically pay down their mortgage debt to the minimum amount required by the regulator (i.e. to achieve a loan-to-value of 67%), but no further. Since mortgage interest payments are tax-deductible, borrowers are incentivised not to repay their mortgages and tend to accumulate financial assets instead.

In Switzerland, house prices have increased faster than incomes, requiring households to take on more mortgage debt to finance their property acquisition. Over the last decade, the outstanding amount of mortgage loans has grown faster than both property prices and GDP, as Exhibit 16 shows.

Exhibit 16

Switzerland's mortgage growth has outstripped property prices and GDP

Indexed nominal GDP, outstanding mortgage loans and nominal property prices, 2008 = 100



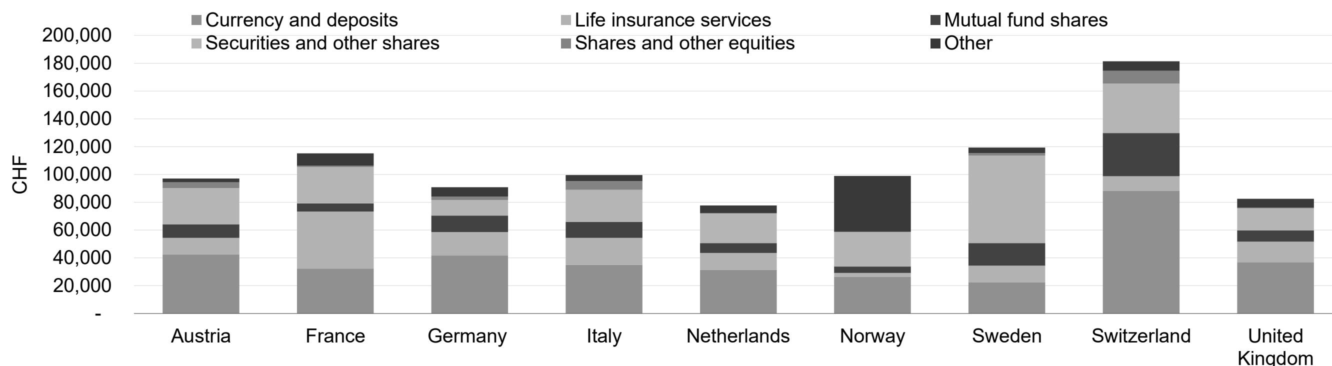
Source: SNB, IAZI, Moody's Investors Service calculations

Despite Switzerland's high household debt, borrowers' capacity to service mortgage payments remains strong because household wealth includes a very large volume of liquid financial assets compared to other countries, as Exhibit 17 shows.

Exhibit 17

Swiss households hold large deposits, mitigating their high indebtedness

Household financial assets per capita for selected countries



Excluding pension entitlements. Funded pension schemes are particularly large in the Netherlands, Switzerland, Sweden and the UK. Data as of 2019.
Source: OECD

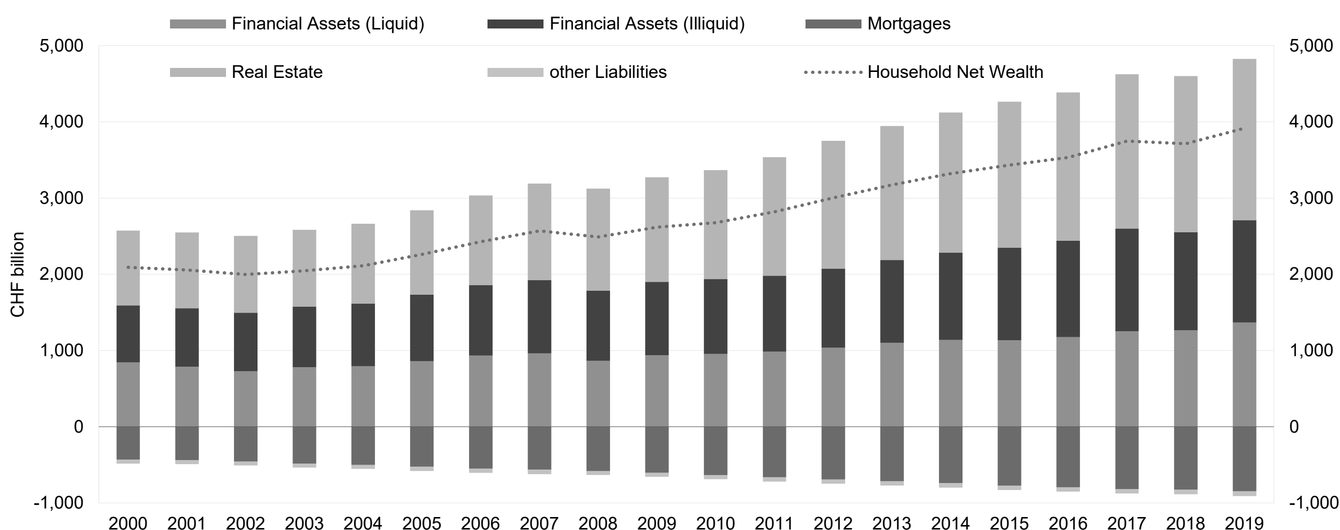
This substantial liquidity buffer reduces the impact that a pronounced slowdown in property markets or a spike in interest rates would have on the ability of Swiss households to service their mortgage debt. Indeed, in aggregate, the amount of liquid financial assets (cash and deposits) held by households covers all household debt, keeping in mind that each is distributed unequally across the population.

Moreover, the aggregate net wealth (including real estate and pensions) of Swiss households is very high at around 575% of GDP. Net wealth increased substantially over the last two decades as the growth rates of financial asset and real estate values (despite some volatility in the years 2000 and 2008) exceeded debt servicing costs (Exhibit 18).

Exhibit 18

Net financial worth of Swiss households is very high and trending up

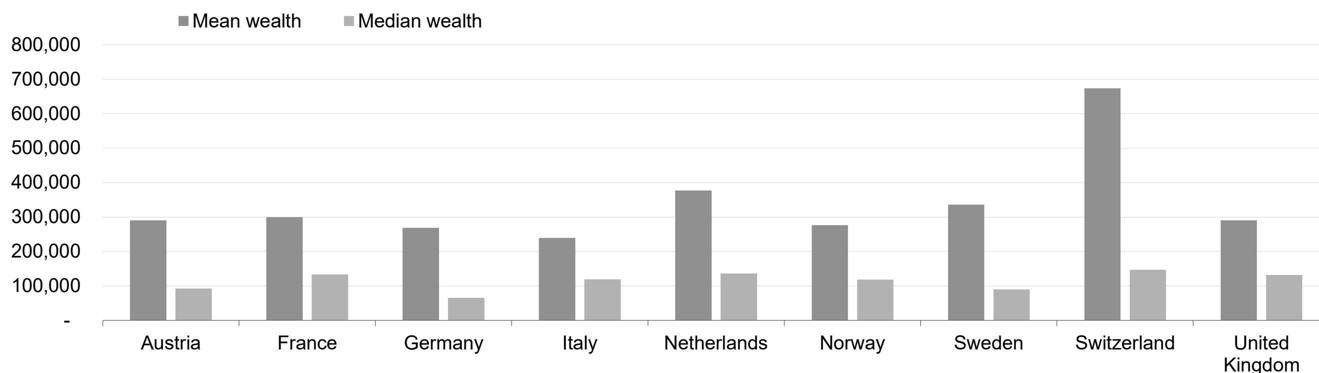
Assets and liabilities (columns) and net wealth (lines) of Swiss households



Liquid financial assets include deposits, debt securities, shares. Illiquid financial assets includes personal pension and life insurance savings
Source: SNB

However, this wealth is unevenly distributed due to a relatively high disparity in wealth and, to a lesser degree, income levels across Swiss households, as Exhibit 19 shows. The Swiss wealth gap has widened in the last two decades as asset-rich households have benefitted from rising asset prices and cheap mortgage rates, while income growth has been subdued for low and medium income households.

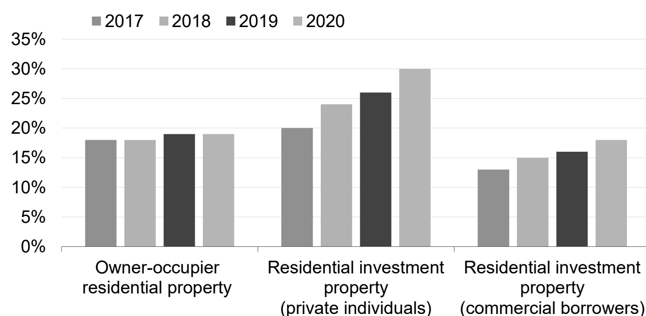
Exhibit 19
Household wealth distributed unevenly in Switzerland
Mean and median wealth per adult for selected countries, in USD



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2021

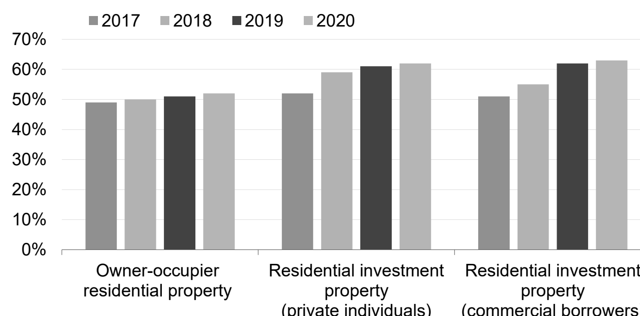
A key risk to mortgage affordability is higher interest rates as inflation has increased stronger than initially expected and central banks are shifting policies accordingly. Exhibits 20 and 21 show the share of mortgage loans at heightened risk of default should interest rates rise to 3% or 5%, respectively. Mortgages interest rates in 2021 were typically below 1%.

Exhibit 20
About 20% of new mortgages would be at heightened risk of default should interest rates rise to 3%
Share of loans for which imputed costs would exceed ⅓ of gross income (owner-occupier mortgages) or exceed rents (for residential investment mortgage) should interest rates rise to 3%



Imputed costs include beside the interests also principal amortisation and property costs, each assumed with typically 1% of the loan amount.
Source: Swiss central bank SNB

Exhibit 21
About 50% of new mortgages would be at heightened risk of default should interest rates rise to 5%
Share of loans for which imputed costs would exceed ⅓ of gross income (owner-occupier mortgages) or exceed rents (for residential investment mortgage) should interest rates rise to 5%



Imputed costs include beside the interests also principal amortisation and property costs, each assumed with typically 1% of the loan amount.
Source: Swiss central bank SNB

Swiss mortgages have a number of mitigants against the risk of rising interest rates:

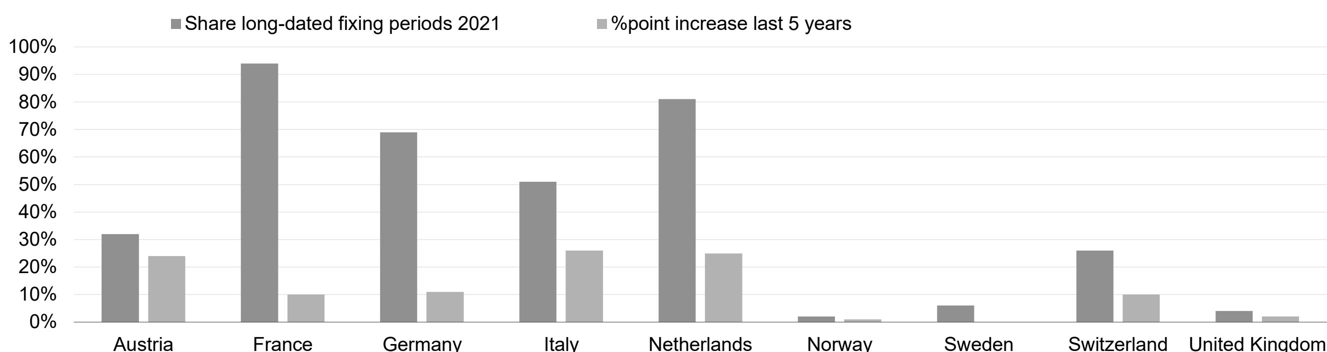
» Low inflation is anchored more firmly in Switzerland than in other countries. Despite accommodative monetary policies aimed at easing the strength of the Swiss franc, inflation rates have remained very low or negative since 2008. The central bank forecasts inflation to fall below 1% again in 2022, which suggests interest rates will not rise strongly in the short term.

» With the current tax system, a rise in interest rates is partially mitigated as households are allowed to deduct mortgage interest paid for owner-occupied homes against a related tax on imputed rental values[5]. The government is considering abolishing this tax system, though progress on the legislative initiative has come to a halt during the pandemic. At the current low interest rate levels, abolishing the current system may imply reducing the tax burden of households.

- A number of Swiss banks incorporate stressed interest rates in their affordability calculations when underwriting mortgage loans. The stressed interest rate is typically 5%, which is significantly higher than current market rates. The interest rate of mortgage loans with a fixed rate period up to 10 years was just below 1% for prime residential borrowers in 2021.
- Some mortgages will have benefited from loan amortisation by the time they reset to the then prevailing interest rate. One quarter of the mortgage loan stock has a remaining interest rate fixing period of over 5 years. This share of Swiss mortgages with longer interest rate fixing periods is lower than in peer countries, see Exhibit 22.

Exhibit 22

Share of mortgages with long-dated interest rate fixing periods is lower than in peer countries
Share of long-dated (>5 years) fixed-rate mortgages and their change over the last 5 years



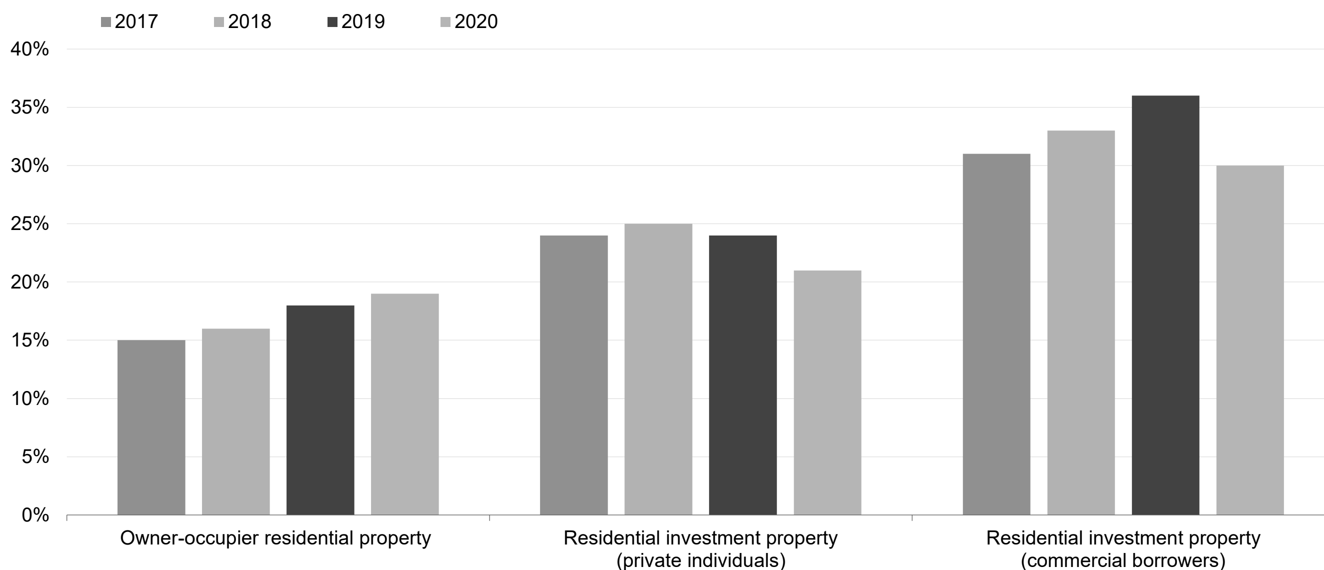
% of overall mortgage stock
Source: Moody's Investors Service

In case of rising interest rates, loans with a high loan to value (LTV) ratio are at a higher risk of severe losses than loans with low LTVs. This is because loans with a low LTV face a better prospect of full recovery of the loan proceeds in case of foreclosure of the property. Exhibit 23 shows that should interest rates rise to 5%, then 19% of owner-occupier mortgages are at higher risk because their imputed loan costs exceed ⅓ of the borrowers' income and the LTV is above 74%. For residential investment property mortgages to commercial borrowers, the corresponding value is 30%.

Exhibit 23

Over 20% of new mortgages at higher risk should interest rise to 5% as they also carry higher LTVs

Share of loans for which a) imputed costs would exceed ⅓ of gross income (owner-occupier mortgages) or exceed rents (for residential investment mortgage) should interest rates rise to 5% and b) the LTV ratio is over 74% of the property value



Imputed costs include beside the interests also principal amortisation and property costs, each assumed with typically 1% of the loan amount.
Source: Swiss central bank SNB

2.6 Strong social security net reduces loan default risk

For mortgage loans secured on owner-occupied residential properties, the biggest drivers of default risk are (i) long-term sickness or death, (ii) separation or divorce and (iii) unemployment, of which unemployment is volatile and correlated with economic performance. Therefore, a country's social security system, and in particular its unemployment income support, provides an important safety net that mitigates borrower default risk.

Switzerland's unemployment support is strong, as Exhibit 24 shows, and the country's strong government finances imply that this expenditure is sustainable. For further details, see Appendix 2.

Exhibit 24

Switzerland's unemployment support largely compensates for lost income for up to 1.5 years

Green: Strong protection. Blue: Moderate protection. Red: Low protection

Overall assessment	Benefit as % of last salary Cap on considered monthly salary	Time limit to income support
Austria	55%-80% No cap	At least 1/2 year (but longer for older person)
Germany	60%-67% Cap EUR 7,100 per month	1 year (2 years if older person)
France	57%-75% No cap	2 years (3 years if older person)
Italy	75%, decreasing with time Cap EUR 1,335 per month	3 years
Netherlands	75%, then 70% Cap EUR 6,700 per month	2 years
Norway	62% Cap EUR 4,400 per month	1 or 2 years, depending on prior income level
Sweden	EUR 1,000 monthly basic unemployment payment; plus 80% if in voluntary unemployment insurance fund with cap EUR 2,600 per month	No time limit on basic payment. Fund payment up to 1.3 years
Switzerland	70%-80% Cap EUR 11,600	1 year (1.5 years if older person)
United Kingdom	None. Only limited income support (EUR 350 per month)	1/2 year

Unemployment benefit often considers additional factors like family circumstances, minimum insurance period, degree of employment (working hours) reduction, uptake of training support etc. Austria and Italy also provide unemployment benefits to self-employed, under certain conditions.

Source: Moody's Investors Service based on European Commission and UK Government data

2.7 Reverse mortgages carry a higher risk for lenders

In recent years, Swiss lenders have increasingly offered specialised mortgage products tailored to the needs of retirees, namely to top up their pension income to maintain the living standard and to avoid the sale of the owner-occupied property. So-called reverse mortgages are typically available to borrowers over 60 years old. The maximum mortgage amount is 66% of the property value, and a portion of the mortgage advance is pledged to the lender to cover expected interest accruals over the life of the loan, which is typically 10 to 15 years.

Reverse mortgages carry a higher risk for lenders as repayment depends solely on property sale proceeds, while conventional mortgages do not rely on property sales unless borrowers default on their scheduled payments. In addition, lenders may face unique difficulties should it come to enforcement procedures.

Reverse mortgages may be included in cover pools of Swiss Pfandbriefe and structured covered bonds in the future.

2.8 Strong growth of alternative mortgage lenders

Banks' share of the mortgage market is currently over 90%. The most active lenders are UBS, Credit Suisse and the Raiffeisenbanks, each with a national market share of around 15%, while cantonal banks are often the market leaders in their regions. By contrast, the market share for insurers and pension funds is currently low, at around 4% and 2% respectively. However, the role of non-banks in the mortgage market is growing strongly; for example, the volume of pension fund mortgages increased by 18% in 2020.

Insurance companies like Allianz, Generali and Zurich generally have a more limited range of mortgage products than banks, but are price competitive for long-term fixed rate mortgages. Pension funds typically have more stringent underwriting criteria than banks, but are price competitive in the refinancing market where borrowers typically have reduced their leverage. There is a possibility that insurance companies and pension funds in the future divert the lowest-risk mortgages away from banks, which could impact the credit strength of covered bonds negatively.

3.0 Legal and regulatory update

3.1 Macroprudential lending rules are relatively loose

Like several other European countries following the experiences of the 2008 financial crisis, Switzerland began in 2012 to introduce macroprudential lending limits for the origination of new residential mortgages, which were successively tightened in 2014 and 2020[6].

Untypical in an international context, in Switzerland, the macroprudential rules are not set by the regulatory authorities but via self-regulation guidelines set out the by Swiss banking industry, which FINMA, the Swiss financial services regulator, has since declared as universally binding for Swiss mortgage lenders[7]. Adherence to these guidelines is necessary for lenders to qualify for risk weights of mortgages below 35% under the internal rating based approach to calculate the bank's capital requirements. The guidelines are summarised in Exhibit 25.

Exhibit 25
Switzerland's macroprudential rules are relatively loose compared to other countries
Swiss mortgage market lending restrictions

	Owner-occupied residential properties	Investment properties
Loan to value (LTV)	Mortgage maximum 90% of the property value. Exemption for mortgage refinancings as long as the mortgage does not increase. The 10% equity can be provided by obtaining junior loans as well as by liquidating or pledging securities, (the purchase value of) capital life insurance contracts or pension savings of the so-called '3rd pillar'.	Mortgage maximum 75% of the property value. Exemption for mortgage refinancings as long as the mortgage does not increase. The 25% equity can be provided by obtaining junior loans as well as by liquidating or pledging securities, (the purchase value of) capital life insurance contracts.
Repayment	Mandatory amortisation down to 66% LTV within 15 years. The amortisation has to be linear, starting the latest one year after loan origination. Indirect amortisation is possible e.g. via payment into pledged capital life insurance contracts or pension savings of the so-called '3rd pillar'.	Mandatory amortisation down to 66% LTV within 10 years. The amortisation has to be linear, starting the latest one year after loan origination. Indirect amortisation is possible e.g. via payment into pledged capital life insurance contracts.
Income limitation	Not specified	Not specified
Stress test	Not specified	Not specified
Flexibilty	The setup provides significant flexibilty for lenders.	The setup provides significant flexibilty for lenders.

The guidelines do not apply to certain small buy-to-let mortgages.
The Swiss pension system consists of three pillars. Pillars 1 and 2 are part of the national pension system whereby pillar 1 is unfunded (pay-as-you-go across generations), while pillar 2 is funded. Pillar 3 are private (funded) pension schemes that provide about 60% of working income.
Source: Swiss Banking Association

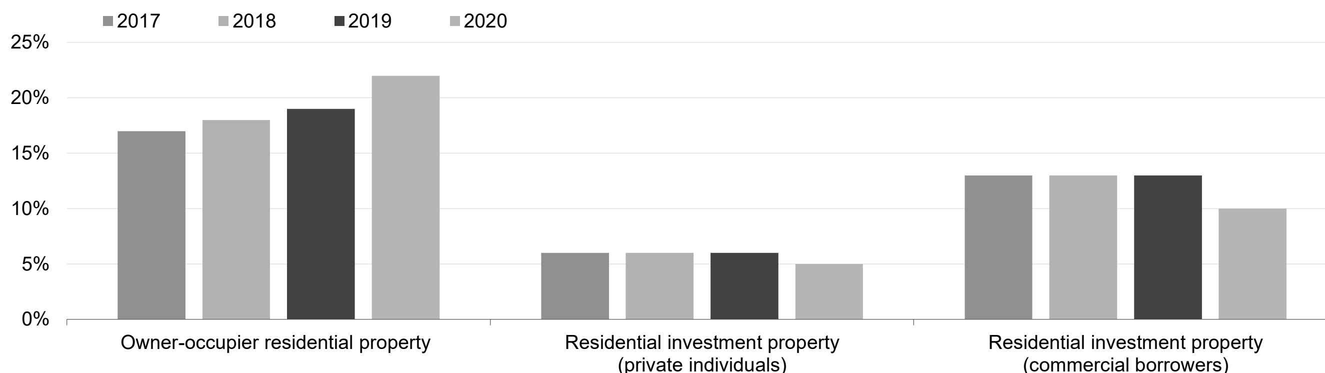
The rules contained in the guidelines are relatively loose compared to other countries. For example, they do not specify a debt-to-income limit, and the loan-to-value (LTV) ratio can be as high as 90% (without counting junior loans), raising the risk of significant losses in loan enforcement procedures should house prices decline. Nevertheless, Swiss banks generally choose to apply more conservative lending standards. For example, most banks apply a stressed affordability test with conservative assumptions for future income and interest rates [8].

In 2020, the rules for investment property lending were tightened and there has been a notable decline in the share of high-LTV mortgages (with LTVs over 80%) in relation to investment properties, although the share of high-LTV mortgages in the owner-occupier space has increased (Exhibit 26).

Exhibit 26

Share of new high-LTV mortgages continues to rise for owner-occupier mortgages.

Share of new mortgages whereby the loan amount exceeds 80% of the property value



Source: Swiss central bank SNB

In 2013, the Swiss authorities activated a countercyclical capital buffer requiring banks to hold additional core capital on domestic residential mortgage exposures. In 2014, the buffer was increased to 2.0%, but was suspended in 2020 in response to the Corona virus pandemic. The Swiss authorities will reactivate the buffer from 30 September 2022 at a rate of 2.5% of risk-weighted assets backed by domestic residential real estate.

3.2 Switzerland's legal framework for covered bonds: Two systems

The large majority of Swiss covered bonds are in the form of Swiss Pfandbriefe, governed by Switzerland's legal framework. Some banks have set up additional covered bond programmes on a contractual basis ('structured covered bonds') to have an alternative form of funding.

Swiss Pfandbriefe governed by a dedicated Pfandbrief law

Switzerland's legal framework for Swiss Pfandbriefe is mainly prescribed by the Pfandbrief Act.[9] The system is unique in how it restricts the number of Pfandbrief institutions to two and allows any Swiss bank to participate in the system. One of the Pfandbrief institutions is owned by private and cooperative sector banks and the other is owned by cantonal banks.[10] The Pfandbrief institutions issue Pfandbriefe to refinance their owner banks' Swiss mortgage business.

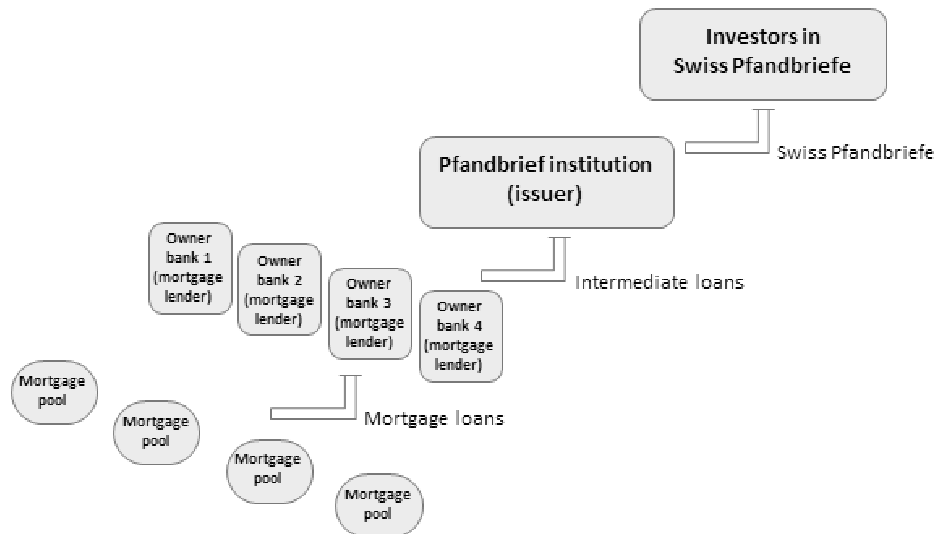
Swiss Pfandbriefe follow a pooling model. However, there are no joint-liability or cross-default provisions. Each owner bank is solely liable for its own intermediate loans, which implies paying only for the corresponding pro-rata share of the interest and principal payment obligation under the matching Pfandbriefe, and has no legal obligation to compensate the Pfandbrief institution for losses.

Exhibit 27 shows the structure of Swiss Pfandbriefe programmes. The Pfandbrief insititution raises money by issuing Swiss Pfandbriefe and uses the proceeds to grant intermediate loans to its owner banks. The intermediate loans match the Pfandbriefe in amount, currency, repayment terms (hard bullets) and interest rates[11], and are secured (with overcollateralisation) by mortgage loans belonging to the owner banks. The Pfandbrief investors have a priority right over the intermediate loans, which collectively constitute the cover pool.

Exhibit 27

Swiss Pfandbrief structure

Two Pfandbrief institutions act as refinancing vehicles for the Swiss banking system



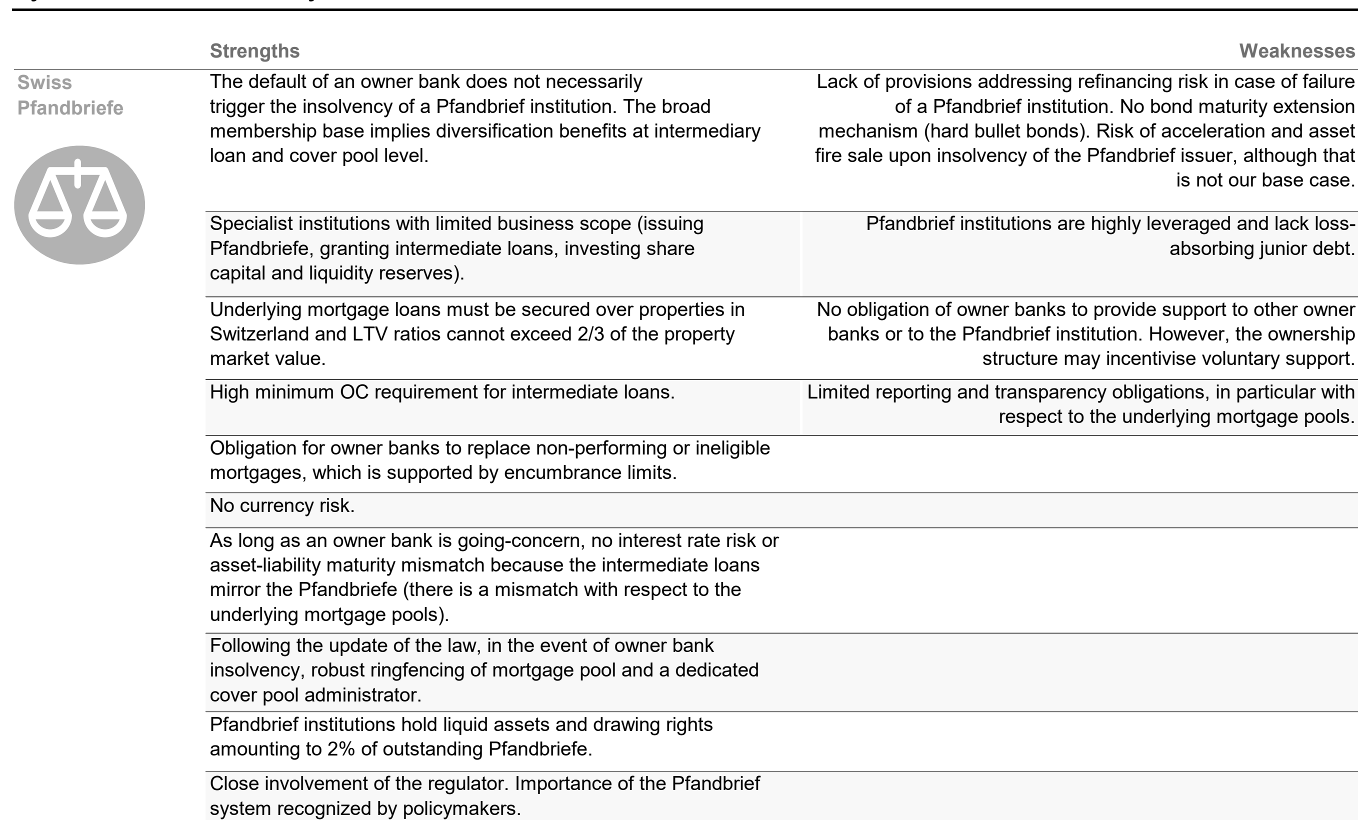
Source: Moody's Investors Service

While the Pfandbrief framework contains detailed provisions designed to minimise the risk that a Pfandbrief institition will fail, it has fewer provisions governing the remote scenario in which such failure actually occurs. Exhibits 28 and 29 summarise the framework.

Exhibit 28

Strengths outweigh the weaknesses of Swiss Pfandbriefe

Key features of Swiss Pfandbriefe system



	Strengths	Weaknesses
Swiss Pfandbriefe	The default of an owner bank does not necessarily trigger the insolvency of a Pfandbrief institution. The broad membership base implies diversification benefits at intermediary loan and cover pool level.	Lack of provisions addressing refinancing risk in case of failure of a Pfandbrief institution. No bond maturity extension mechanism (hard bullet bonds). Risk of acceleration and asset fire sale upon insolvency of the Pfandbrief issuer, although that is not our base case.
	Specialist institutions with limited business scope (issuing Pfandbriefe, granting intermediate loans, investing share capital and liquidity reserves).	Pfandbrief institutions are highly leveraged and lack loss-absorbing junior debt.
	Underlying mortgage loans must be secured over properties in Switzerland and LTV ratios cannot exceed 2/3 of the property market value.	No obligation of owner banks to provide support to other owner banks or to the Pfandbrief institution. However, the ownership structure may incentivise voluntary support.
	High minimum OC requirement for intermediate loans.	Limited reporting and transparency obligations, in particular with respect to the underlying mortgage pools.
	Obligation for owner banks to replace non-performing or ineligible mortgages, which is supported by encumbrance limits.	
	No currency risk.	
	As long as an owner bank is going-concern, no interest rate risk or asset-liability maturity mismatch because the intermediate loans mirror the Pfandbriefe (there is a mismatch with respect to the underlying mortgage pools).	
	Following the update of the law, in the event of owner bank insolvency, robust ringfencing of mortgage pool and a dedicated cover pool administrator.	
	Pfandbrief institutions hold liquid assets and drawing rights amounting to 2% of outstanding Pfandbriefe.	
	Close involvement of the regulator. Importance of the Pfandbrief system recognized by policymakers.	

Source: Moody's Investors Service

Exhibit 29
Summary of the Swiss Pfandbrief framework

Key feature	Summary
Cover pool	
Issuer	Only two issuers of Swiss Pfandbriefe: Pfandbriefbank schweizerischer Hypothekarinstitute AG (PBH) and Pfandbriefzentrale der schweizerischen Kantonalbanken AG (PBZ).
Covered bonds	Mortgage covered bonds with hard bullet repayment and fixed interest rate, denominated in Swiss Franc.
Type of assets	Looking through the intermediate loans granted to the owner banks, the underlying assets are mortgage loans secured on residential properties located in Switzerland. Residential property may be owner-occupied or held as an investment property, including multi-family properties. Commercial properties are eligible under the Pfandbrief Act but in practice their share is immaterial.
Maximum LTV	67% of the property market value used for lending purposes is counted as cover pool asset. Lower LTV limit for other property types (e.g. 50% LTV for mixed use properties with <1/3 commercial real estate share).
Legal minimum OC	Pfandbrief institutions provide 2% OC (in the form of liquid assets and drawing rights) for Pfandbriefe. Owner banks must provide at least 8% and 15% OC (in the form of mortgage loans) for intermediate loans advanced by PBH and PBZ, respectively. The higher OC level for PBZ's intermediate loans compensates for not having a standardised electronic cover pool register. OC is calculated on a nominal basis.
Asset coverage	While the whole mortgage loan is pledged as OC, only loan parts within the LTV limit are counted as OC. Principal and interest payments on Pfandbriefe must at all times be covered by matching payments on intermediate loans.
Interest coverage	Owner banks must pledge mortgage loans so that their annual interest payments cover the intermediate loans' interest payments with at least 108% (PBH) and 110% (PBZ).
Ineligible assets	Owner banks must replace ineligible mortgages.
NPLs	Owner banks must replace impaired or non-performing mortgages.
Third party supervision	The Swiss financial services authority (FINMA) supervises the Pfandbrief institutions and owner banks. The Swiss federal goverment (Swiss Federal Council) nominates one member of the board of directors and approves changes to the Pfandbrief institutions' articles of association. Changes to the property valuation regulations are also approved by the Swiss Federal Council.
Asset-liability matching	
Interest rate risk	The interest rate on intermediate loans matches the interest rate on Pfandbriefe plus a margin for operational costs. However, the interest rate on underlying mortgage loans may differ from the interest rate on Pfandbriefe.
Currency risk	No currency risk as Pfandbriefe, intermediate loans and mortgage loans are all denominated in Swiss Franc.
Liquidity risk	The repayment profile of Pfandbriefe (hard bullets) matches the intermediate loans. However, the repayment profile of underlying mortgage loans and Pfandbriefe may differ, creating refinancing risk.
After default of an owner bank	
Administration of cover pool	Following an update to the Pfandbrief Act (the Pfandbrief Act Update) expected to come into force in 2023, the pledged mortgage loans of an insolvent owner bank will be segregated from its insolvency estate and a dedicated cover pool administrator will work in the interest of Pfandbrief investors. The intermediate loans are excluded from bail-in and other similar resolution measures and we would expect them to be transferred to the 'good bank' if that is in the best interest of the Pfandbrief institution.
Transfer of cover pool assets/ covered bonds	The law update tasks and empowers the cover pool administrator to take all necessary actions to ensure the complete and timely fulfillment of the owner-bank's interest and principal payment obligations under the intermediate loans. We expect this could include the transfer of some or all of the intermediate loans, and the mortgage loans securing them, to a third-party bank (subject to FINMA approval) and/or the liquidation of mortgage loans to repay the intermediate loans. The transferee may itself be an owner bank of a Pfandbrief institution.
Liquidity to facilitate timely payments	Pfandbrief institutions maintain their capital (about 2% of outstanding Pfandbriefe) in the form of repo-eligible assets, which can act as a liquidity buffer. At least in theory, following the default of an owner bank, a Pfandbrief institution may be able to continue issuing Pfandriefe or repo them with the Swiss central bank to facilitate continued timely payments.
Acceleration	The insolvency of an owner bank does not trigger the acceleration of the Pfandbriefe, and the Pfandbrief Act Update prevents the acceleration of intermediate loans, thereby maintaining the the matching principle between Pfandbriefe and intermediate loans. There are no support or cross-default provisions between owner banks or the Pfandbrief institution.
After default of the pfandbrief institution	
Administration of cover pool	A Pfandbrief institution may become insolvent if a critical share of owner-banks fails and shortfalls from the intermediate loans exceed the Pfandbrief institution's 2% liquidity buffer. Pfandbrief institutions do not carry bail-in-able debt, which limits the resolution options. FINMA would declare the insolvency of a Pfandbrief institution and oversee the insolvency administrator.
Transfer of cover pool assets/ covered bonds	Given that the Swiss banking system will likely be under high stress in a scenario where a Pfandbrief institution fails, it is likely that losses due to asset price and market value fluctuations will be high, limiting the practical options of the insolvency administrator to liquidate the intermediate loans (implicityly, pursuing the forced liquidation of large volumes of residential mortgage loans).
Liquidity to facilitate timely payments	The intermediate loans of banks that are in this scenario still going-concern would not accelerate and hence continue to pay interest, plus principal at the intermediate loan's maturity date. Following a decision by FINMA to put a Pfandbrief institution into insolvency, it is difficult to see significant liquidity support to be forthcoming.
Acceleration	There is no automatic acceleration. Upon insolvency of a Pfandbrief institution, we see a low likelihood of an immediate fire-sale of the underlying mortgage pools in order to immediately repay the Pfandbriefe, as the workout process would be controlled by FINMA in the best interest of the Swiss banking system and to maximise recovery for Pfandbrief investors. We expect any recoveries would be allocated pro rata among investors, avoiding time subordination of different series.

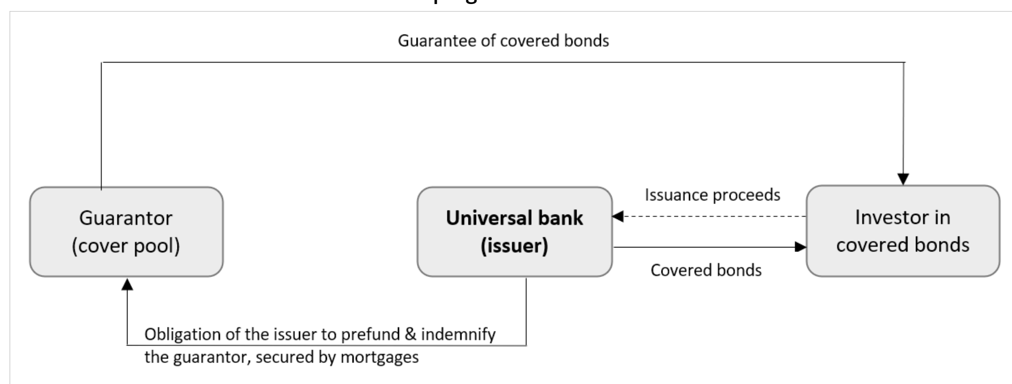
Source: Moody's Investors Service

Structured covered bonds governed by contractual arrangements

Several Swiss banks have set up covered bond programmes on a contractual basis, closely resembling the structure used by covered bond programmes in certain other countries, including the UK, Italy, and Canada. The covered bonds are governed by the Swiss Obligation Law (Schweizer Obligationenrecht).

Exhibit 30 shows the structure of Swiss structured covered bond programmes. The covered bonds are direct, unsecured and unconditional obligations of the issuer, meaning the issuer is obliged to pay interest and principal on the covered bonds. The dual recourse for covered bond investors, by way of security over a cover pool of mortgages, is achieved via the guarantor. The guarantor is typically a Swiss-based special purpose company owned but not controlled by the issuer. Following the default of the issuer, the guarantee is activated and the guarantor must pay interest and principal on the covered bonds. The issuer is obliged to prefund the guarantor with amounts needed to make guarantee payments to covered bondholders (this obligation continues after issuer default), and this obligation is secured over the cover pool. If the issuer fails to perform any pre-funding obligation, the guarantor may enforce its security over a corresponding portion of the cover pool.

Exhibit 30
Structure of structured Swiss covered bond programmes



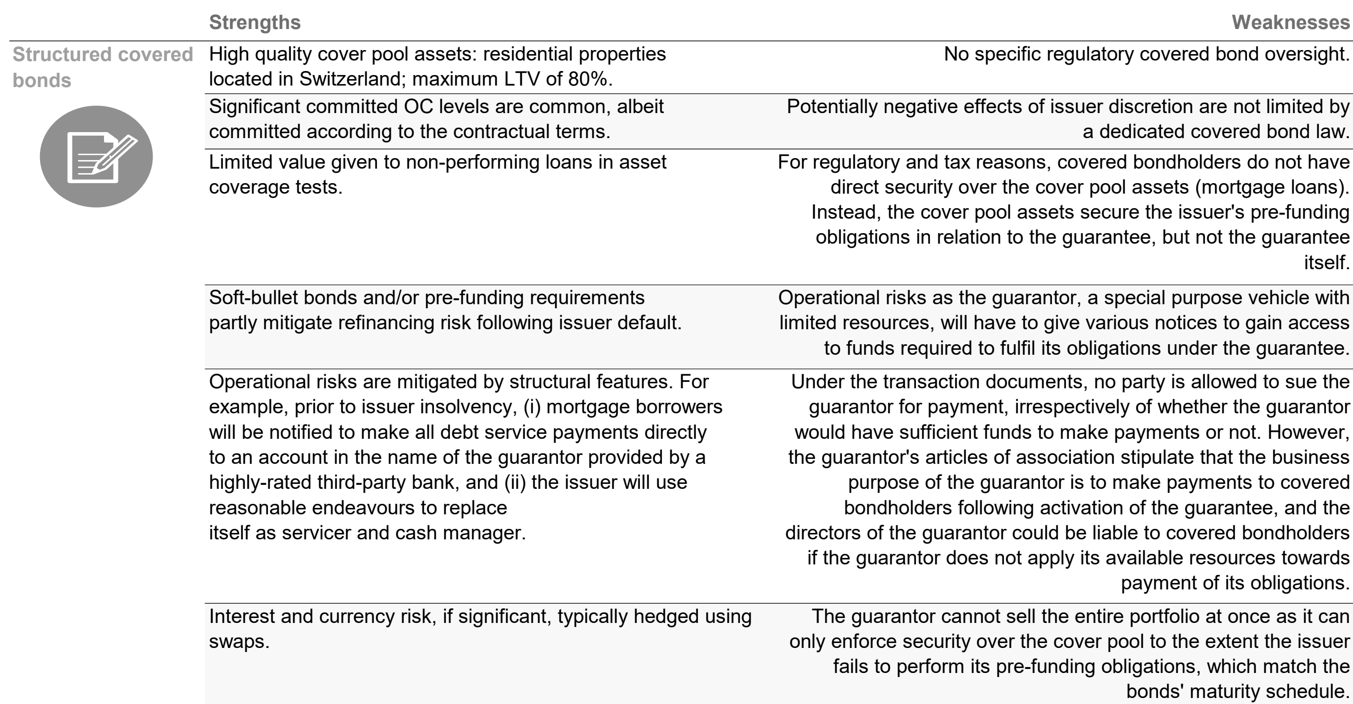
Source: Moody's Investors Service

Exhibits 31 and 32 summarize the typical contractual features of structured covered bonds. Individual programmes may have more flexibility, for example in terms of eligible cover pool assets, the bonds' interest rate and currency arrangements.

Exhibit 31

Broadly even distribution of strengths and weaknesses

Typical contractual features of Swiss structured covered bonds



	Strengths	Weaknesses
Structured covered bonds	High quality cover pool assets: residential properties located in Switzerland; maximum LTV of 80%.	No specific regulatory covered bond oversight.
	Significant committed OC levels are common, albeit committed according to the contractual terms.	Potentially negative effects of issuer discretion are not limited by a dedicated covered bond law.
	Limited value given to non-performing loans in asset coverage tests.	For regulatory and tax reasons, covered bondholders do not have direct security over the cover pool assets (mortgage loans). Instead, the cover pool assets secure the issuer's pre-funding obligations in relation to the guarantee, but not the guarantee itself.
	Soft-bullet bonds and/or pre-funding requirements partly mitigate refinancing risk following issuer default.	Operational risks as the guarantor, a special purpose vehicle with limited resources, will have to give various notices to gain access to funds required to fulfil its obligations under the guarantee.
	Operational risks are mitigated by structural features. For example, prior to issuer insolvency, (i) mortgage borrowers will be notified to make all debt service payments directly to an account in the name of the guarantor provided by a highly-rated third-party bank, and (ii) the issuer will use reasonable endeavours to replace itself as servicer and cash manager.	Under the transaction documents, no party is allowed to sue the guarantor for payment, irrespectively of whether the guarantor would have sufficient funds to make payments or not. However, the guarantor's articles of association stipulate that the business purpose of the guarantor is to make payments to covered bondholders following activation of the guarantee, and the directors of the guarantor could be liable to covered bondholders if the guarantor does not apply its available resources towards payment of its obligations.
	Interest and currency risk, if significant, typically hedged using swaps.	The guarantor cannot sell the entire portfolio at once as it can only enforce security over the cover pool to the extent the issuer fails to perform its pre-funding obligations, which match the bonds' maturity schedule.

Source: Moody's Investors Service

Exhibit 32
Typical contractual features of Swiss structured covered bonds

Key feature	Summary
Cover pool	
Issuer	Swiss banks
Covered bonds	Mortgage covered bonds with soft bullet repayment.
Assets	Mortgage loans secured on residential properties located in Switzerland.
Maximum LTV	80% of the property market value for lending purposes (amount considered in asset coverage test)
Minimum OC	Issuer commits contractually to maintain a minimum OC level. Contractual OC levels may leave the issuer more exceptions than legal minimum OC requirements.
Asset coverage	While the whole mortgage loan is pledged to the cover pool, only loan parts up to the LTV limit count as cover for the asset coverage test. Covered bonds' principal must at all times be covered by cover pool assets (plus contractual minimum OC). Failure to comply with asset coverage tests constitutes an issuer event of default, activating the guarantee.
Interest coverage	Annual interest income of the cover pool must at least equal the interest expense under the covered bonds. Failure to comply with the interest coverage test constitutes an issuer event of default, activating the guarantee.
Ineligible assets	In the asset coverage test, no value is given to loan parts above 80% of the property market value.
NPLs	In the asset coverage test, NPLs are only counted with a maximum of 40% of the property value.
Supervision	No covered bond-specific supervision by a regulatory body. A cover pool monitor and administrator serve an independent control function.
Asset-liability matching	
Interest rate risk	The interest rate on underlying mortgage loans can differ from the interest rate on covered bonds. In some cases, this risk is hedged using swaps.
Currency risk	The currency of underlying mortgage loans can differ from the currency of covered bonds. Typically, these risks are hedged via swap arrangements. Often the swap counterparty is related to the issuing bank, potentially reducing the effectiveness of the swap arrangement.
Liquidity risk	The repayment profile of the underlying mortgage loans can differ from the maturity profile of covered bonds, creating refinancing risk.
After issuer default	
Administration of cover pool	Structured covered bonds are excluded from bail-in, at least to the extend they are secured with collateral. After issuer default, the programme's administrator will work in the interest of covered bond investors.
Transfer of cover pool assets	The guarantor may enforce its security over cover pool assets (i.e. liquidate mortgage loans) in order to repay maturing covered bonds. However, the guarantor cannot sell the entire portfolio at once.
Liquidity to facilitate timely payments	Typically, covered bonds have extendable maturity structures, whereby the maturity date extends by one year after issuer default, partially mitigating refinancing risk. Some covered bonds feature issuer pre-funding requirements upon breach of certain rating triggers. There is also a limited liquidity reserve fund.
Acceleration	The insolvency of the issuer does not trigger the acceleration of the covered bonds.

The description largely reflects features of active Moody's rated covered bond programmes.
Source: Moody's Investors Service

3.3 New EU minimum standards will not apply to Switzerland

The EU's directives and regulations containing minimum standards for covered bond legal frameworks aims to harmonise standards in relation to credit risk, transparency and supervision across EU countries. It is forming an important standard and reference point in the global covered bond market. However, there are currently no plans in Switzerland to incorporate these minimum standards.

3.4 Swiss bank resolution regime

The Swiss resolution regime provides that banks can be placed into resolution if they fail and be subjected to write-downs of their liabilities (bail-in). Bail-in allows the cost of resolving a failing bank to be transferred to creditors, lowering the probability of government support.

Resolution is unlikely to be an effective tool for Swiss Pfandbrief institutions as they lack bail-in-able junior debt but the owner banks of the institutions are subject to resolution provisions and build up designated loss absorbing capital in accordance with their resolution plan. Issuers of structured covered bonds are also subject to resolution provisions.

Pfandbriefe[12] as well as structured covered bonds are excluded from any bail-in to the extent they are backed by cover pool assets.

3.5 Repo eligibility with the Swiss central bank

Swiss Pfandbriefe, including retained Swiss Pfandbriefe, are eligible collateral for repo operations with the Swiss central bank.[13] However, Swiss structured covered bonds are not eligible as repo collateral.

3.6 Switzerland's implementation of Basel capital and liquidity requirements

Swiss Pfandbriefe held by banks attract a 20% risk weight under the standardised approach for determining regulatory capital requirements, and qualify as level 2A high-quality liquid assets under the liquidity coverage ratio (LCR) criteria. Swiss structured covered bonds can have a risk weight as low as 20% depending on their credit risk assessment, but do not count as high quality liquid assets under the LCR criteria.

4.0 Issuer and programme update

4.1 Credit quality of issuers is strong and our outlook for the banking system is stable

Swiss banks participate as owner banks in the Pfandbrief system and some have also established their own structured covered bond programmes. We assign public ratings on 16 financial institution groups in Switzerland, accounting for approximately 75% of banking system assets (Exhibit 33).

The financial strength of Swiss banks is generally very strong. Their deposit ratings are often in the double-A range and this often forms a floor in our assessment of the risk that an issuer ceases to make payments under the covered bonds[14].

Exhibit 33

Swiss banks' deposit ratings are typically in the double-A range

Overview of Moody's-rated Swiss banks

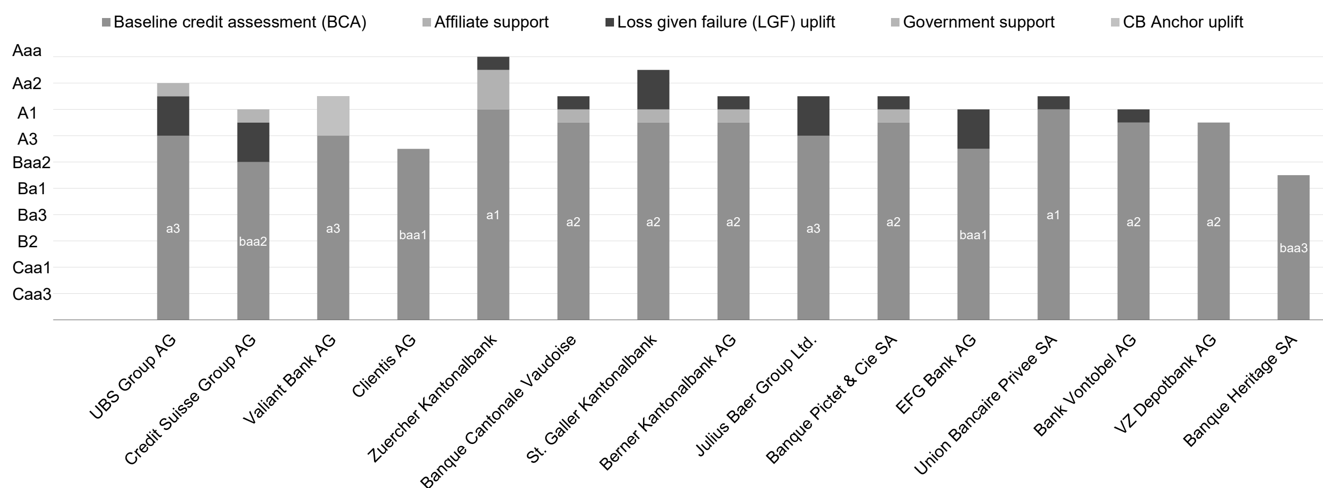
Rated banks / groups	Banking sector	Total assets (Dec 2020, (CHF billion)	Baseline Credit Assessment (BCA)	Long-term bank deposit rating	Long-term senior unsecured / isuer rating	Long-term Counterparty Risk Assessment (CRA)	Outlook
UBS Group AG	Large Bank	954	-	-	A3	-	Stable
UBS AG	Large Bank	953	a3	Aa2	Aa3	Aa2(cr)	Stable
Credit Suisse Group AG	Large Bank	800	-	-	Baa1	A1(cr)	Stable
Credit Suisse AG	Large Bank	804	baa2	A1	A1	A1(cr)	Stable
Raiffeisen Schweiz	Regional Bank	328**	a3	Aa3	A3	A1(cr)	Positive
Valiant Bank AG	Regional Bank	33	a3	A1	-	A3(cr)	Stable
Clientis AG	Regional Bank	14	baa1	A2	-	Baa1(cr)	Stable
Zuercher Kantonalbank	Cantonal Bank	188	a1	Aaa	Aaa	Aaa(cr)	Stable
Banque Cantonale Vaudoise	Cantonal Bank	53	a2	Aa2	-	Aa3(cr)	Stable
St. Galler Kantonalbank	Cantonal Bank	39	a2	Aa1	Aa2	Aa1(cr)	Stable
Berner Kantonalbank AG	Cantonal Bank	36	a2	Aa2	A2	Aa3(cr)	Stable
Julius Baer Group Ltd.	Private Bank	109	-	-	Baa1		Positive
Bank Julius Baer & Co. Ltd.	Private Bank	102	a3	Aa3	A2	Aa3(cr)	Stable
Banque Pictet & Cie SA	Private Bank	45**	a2	Aa2	-	Aa3(cr)	Stable
EFG International AG	Private Bank	39	-	-	A3	A1(cr)	Stable
EFG Bank AG	Private Bank	28	baa1	A1	-	A1(cr)	Stable
Union Bancaire Privee SA	Private Bank	38	a1	Aa2	-	Aa3(cr)	Stable
Vontobel Holding AG	Private Bank	31	-	-	A3	-	Stable
Bank Vontobel AG	Private Bank	22	a2	Aa3	-	A2(cr)	Stable
VZ Depotbank AG	Private Bank	5	a2	Aa3	A3	A2(cr)	Stable
Banque Heritage SA	Private Bank	1	baa3	Baa1	Ba1	Baa3(cr)	Stable

The BCA is our view of a bank's stand-alone financial strength. The CRA and deposit rating are considerations for setting the CB anchor, with the deposit rating typically providing a floor. Some of the banks are not owner banks of the Pfandbrief institutions.

** Consolidated numbers.

Source: Moody's Investor Service

Exhibit 34
Covered Bond Anchor sits at the top of a bank's rating construct
Components determining the Covered Bond Anchor



The components that determine the CB Anchor are the issuer's BCA, affiliate support, LGF uplift (bail-in of creditors), government support and the CB Anchor uplift.
Source: Moody's Investors Service per 25 January 2022

Swiss banks are likely to benefit from continued growth in client deposits, primarily from domestic sources, reflecting Swiss consumers' stable income and wealth. Most Swiss banks' loan books are fully funded by customer deposits, with low dependence on market funding. In the event of stress, we believe that the domestic Pfandbrief market will remain a sustainable source of funding, given that substantial and as yet untapped collateral is available to compensate for deposit outflows.

The strengths of the banking sector include (i) a stable operating environment and high asset quality and (ii) stable capital and profitability, with Swiss banks having some of the strongest capital ratios in Europe. Banking sector challenges include low net interest margins that are currently mostly offset by continued loan growth. For further details, see Banking System Outlook - Switzerland, March 2021.

4.2 Covered bond market dominated by two Pfandbrief institutions

At the end of 2021, the outstanding volume of Moody's-rated Swiss covered bonds was around CHF 155 billion. Over 90% of Swiss covered bonds are Pfandbriefe issued by PBH and PBZ, and the remainder are structured covered bonds issued by banks including UBS, Credit Suisse and Valiant.

We rate the covered bonds of five programmes (all Aaa), representing over 95% of all Swiss covered bonds. Exhibit 35 shows programme-specific information.

Exhibit 35

All Moody's-rated Swiss covered bonds are Aaa

Overview of Moody's-rated Swiss covered bond programmes

Issuer	Type	Covered bond rating	TPI	CB Anchor of issuer	Rating outlook of issuer	CB volume outstanding (CHF million	CB issuance volume 2021 (CHF million)
PBH (Pfandbriefbank schweizerischer Hypothekarinstitute)	Swiss Pfandbrief	Aaa	Probable	Unpublished	Unpublished	80,620	4,046
PBZ (Pfandbriefzentrale der schweizerischen Kantonalbanken)	Swiss Pfandbrief	Aaa	Probable	Unpublished	Unpublished	70,227	4,536
Valiant Bank AG	Structured CB	Aaa	Probable	Aa3	Stable	2,743	675
UBS AG	Structured CB	Aaa	Probable	Aa2	Stable	1,447	-
Credit Suisse AG	Structured CB	Aaa	Probable	A1	Stable	620	-
TOTAL						**155,657**	**9,257**

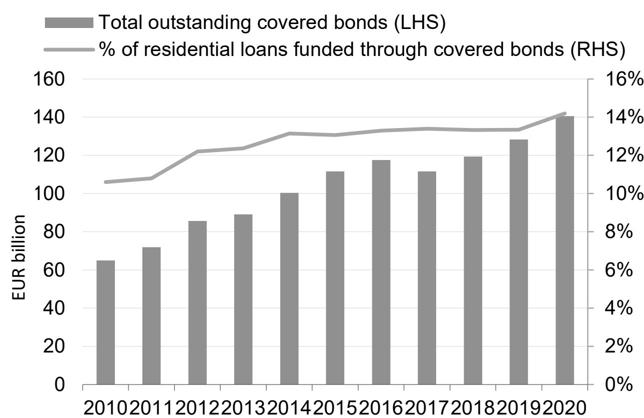
Covered bond volume outstanding as of 31 December 2021. The CB issuance volume 2021 is net of bond redemptions.
Source: Moody's Investors Service

Over the last decade, Swiss covered bond volumes have, with an annual average of 9%, grown stronger than outstanding Swiss mortgages (Exhibit 36). This being said, the share of Swiss mortgages financed by covered bonds is with 14% still low compared with its peer markets (Exhibit 37).

Exhibit 36

Swiss covered bonds show steady growth

Outstanding covered bonds in EUR and as % of residential mortgages

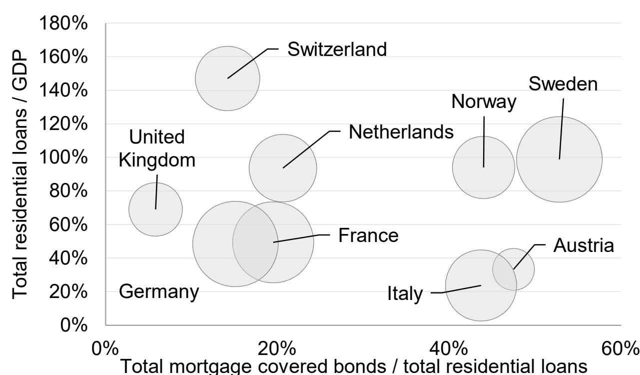


Total reflects both Pfandbriefe and structured covered bonds
Source: ECBC, European Mortgage Federation

Exhibit 37

High mortgage volume relative to GDP, but low portion funded by covered bonds

Size of bubble reflects amount of outstanding covered bonds (in euros)



RMBS is a relevant capital market funding source in some of these markets. Ratio including RMBS: France 27%, Italy 56%, Netherlands 41%, United Kingdom 16%.
Source: ECBC, European Mortgage Federation

Swiss banks own the Pfandbrief institutions

All Swiss banks have a right to participate in the Pfandbrief system. Cantonal banks participate in PBZ, while private and cooperative sector banks participate in PBH. Each Pfandbrief institution accounts for about one half of the Swiss Pfandbrief market, and together they reflect the credit quality of the Swiss banking system as a whole.

We view the risk of a Pfandbrief institution becoming insolvent as currently very low. Such insolvency could only occur in the event of significant credit challenges across the Swiss banking system that cause a critical share of owner banks to default on their intermediary

loans in an amount exceeding the Pfandbrief institution's liquidity buffer. The liquidity buffer of Pfandbrief institutions is typically around 1% to 2% of total assets.

The ownership structure of the Pfandbrief institutions broadly mirrors the utilisation of the Pfandbrief system by the owner banks. Almost 60% of PBH's owner banks are systemically important, and many of PBZ's owner banks benefit from canton guarantees (Exhibits 38 and 39).

Exhibit 38

Systemically important banks account for 59% of PBH's intermediate loans

PBH: 290 owner banks

Owner banks of PBH	Share of all intermediate loans	Systemically important?
Raiffeisen Gruppe (216 independent Raiffeisen banks plus Raiffeisen Schweiz)	32%	Yes
Credit Suisse (Schweiz) AG	16%	Yes
UBS Switzerland AG	11%	Yes
Migros Bank AG	8%	No
Valiant Bank AG	7%	No
Bank Cler	5%	No
68 other banks including savings and regional banks	21%	No

Bold: Owner banks that also have their own structured covered bond programmes.
Source: PBH, Moody's Investors Service

Exhibit 39

Many cantonal banks benefit from a canton guarantee

PBZ: 24 owner banks

Owner banks of PBZ	Share of all intermediate loans	Canton guarantee?
Zürcher Kantonalbank	16%	Yes
Berner Kantonalbank	9%	No
Luzerner Kantonalbank	9%	Yes
Banque Cantonale Vaudoise	8%	No
Thurgauer Kantonalbank	6%	Yes
St Galler Kantonalbank	6%	Yes
Banque Cantonale de Fribourg	5%	Yes
Banque Cantonale de Geneve	5%	No
Basler Kantonalbank (w/o Bank Coop)	5%	Yes
15 other cantonal banks	30%	

Zuercher Kantonalbank is designated as domestic systemically important bank.
Source: PBZ, Moody's Investors Service

4.3 Highest quality cover pools back Pfandbriefe and structured covered bonds

Covered bonds are backed by high-quality residential mortgage loans

Both Swiss Pfandbriefe and structured covered bonds are backed by residential mortgages. They typically have the following characteristics:

» **Property type**: Single-family owner-occupied house or apartments. However, pools also regularly include loans financing buy-to-let and residential investment properties.

» **Borrower:** Natural person owning the property. In some investment property financings cases, the property is held in a limited liability company, which is also the borrower, and then personal recourse to the ultimate sponsor is not always available.

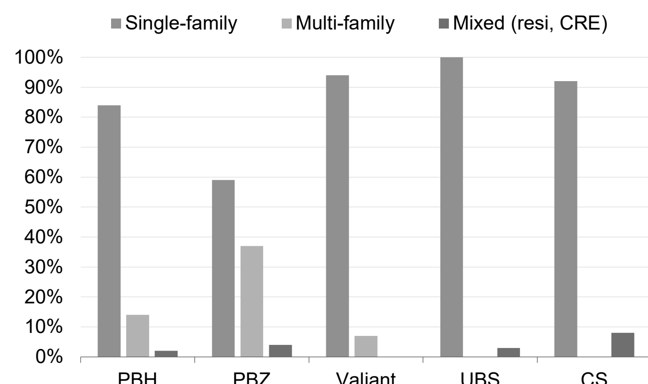
» **Repayment**: Large share of interest-only loans as (i) macro-prudential rules only require amortisation down to 67% LTV and (ii) tax regulation allows for the deducting of interest payments also for owner-occupied properties. The share of interest-only loans in cover pools ranges from 44% to 87% and is typically at about 70%.

» **Interest rate**: Five-year fixed interest rate period. Lender can demand repayment of the mortgage loan in full at the end of the fixing period.

» **Pool seasoning**: Four years, reflecting significant loan refinancing activity at the end of interest rate fixing periods.

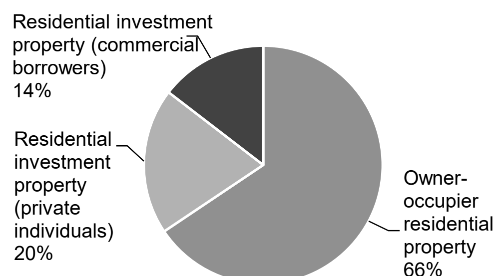
Most cover pool mortgages are secured over owner-occupied single-family homes, which we view as credit-positive (Exhibits 40 and 41).

Exhibit 40
Single-family homes and apartments constitute the large majority of cover pools
Distribution of cover pool mortgages by property type



Mixed refers to properties where the commercial real estate (CRE) share is 30% or less
Source: PBH, PBZ, Moody's Investors Service

Exhibit 41
Share of owner-occupier residential property higher in cover pools than banks' total loan book
Mortgage volume by property usage (based on loan origination volumes)



Owner-occupier includes vacation homes. Residential investment property includes multi-family property. Rebased to exclude 'other' mortgage loans.
Source: Swiss central bank SNB

Income underwriting and valuation procedures are generally prudent, but vary in some respects across lenders. Exhibit 42 summarises the typical underwriting and property appraisal practices.[15]

Exhibit 42
Loan underwriting and property appraisal practices are typically prudent
Typical underwriting and valuation criteria for Swiss cover pool mortgages

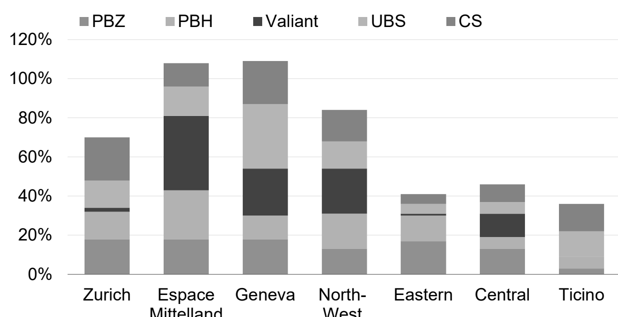
Income underwriting	
Is income always checked?	Yes
Does income constrain the maximum loan?	Yes
What is the loan-to-income limit?	Typically, debt service and ancillary property expenses shall not exceed 1/3 of total gross income. Typical further considerations are the LTV and other risk profile information.
Assumed repayment period	Repayment required only down to 66% LTV, over 15 years (owner-occupied properties) or 10 years (residential investment property)
Borrower's age constrains amortisation period?	Repayment down to 66% LTV before borrower's retirement age
Stresses made to interest rates?	Yes; typically used stress rate is 5%
Are all other debts of the borrower taken into account?	Yes, including leases and debt service for consumer loans (at stressed interest rate)
How are living expenses of the borrower calculated?	Typically, debt service and ancillary property expenses shall not exceed 1/3 of total gross income. Hence, remaining 2/3 of income is supposed to be sufficient for living and other expenses.
Property appraisal	
Are valuations based on market or lending values?	Market values
What is the valuation method?	Automated valuation models for single-family properties based on transaction prices for similar properties. Individual appraisals for multi-family and CRE properties
Internal or external valuers?	Internal
Internal inspection of the property?	Majority of cases yes, but several exceptions. For example, rarely done for loan refinancings.

Source: Moody's Investors Service

Covered bonds are backed by geographically well-diversified mortgage loans

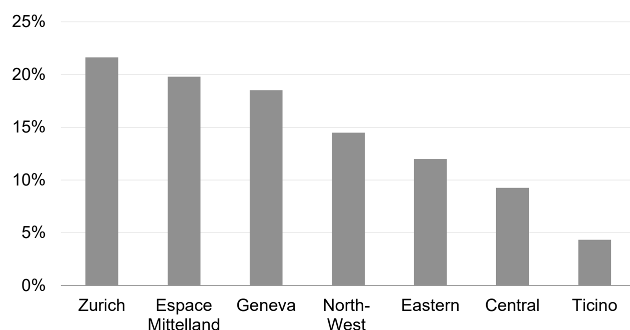
Each programme benefits from geographically well-diversified mortgage loans (with the Pfandbrief institutions having the highest diversification due to their volume). Credit Suisse's cover pool has a particularly large exposure to Zurich, the country's economically strongest canton, accounting for 22% of its cover pool, folllowed by PBZ with 18% of its cover pool. 85% of Valiant's cover pool is concentrated in the second, third and fourth most prosperous region. Credit Suisse and UBS have the highest exposure to Ticino, the economically weakest region of Switzerland (Exhibits 43 and 44).

Exhibit 43
Broad geographical diversification across Switzerland
Share of cover pools (mortgage loans) by region



Source: PBH, PBZ, Moody's Investors Service

Exhibit 44
Top 3 regions contribute 60% of Switzerland's GDP
Contribution of each region to Switzerland's GDP[16]

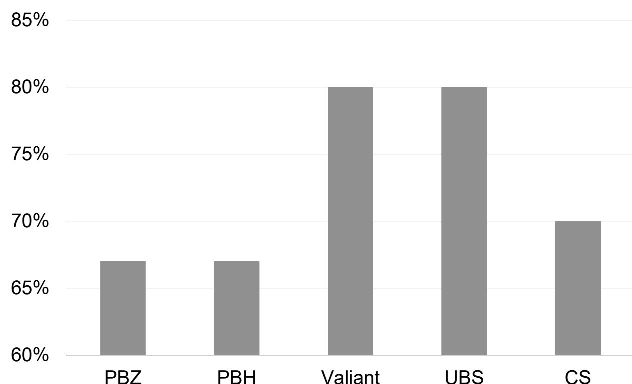


Source: Bundesamt fuer Statistik

Low LTV ratios and typically high committed OC levels mitigate loan performance risk

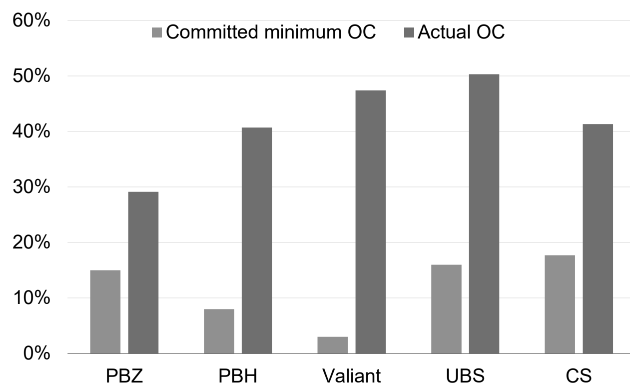
The maximum LTV levels for cover pool mortgage loans are relatively low, ranging from 67% for Pfandbriefe to 80% for Valiant and UBS (Exhibit 45). Investors are further protected by generally high OC levels, with (1) committed OC ranging from 3% for Valiant to 18% for Credit Suisse and (2) actual OC ranging from 30% to 50% in Q3-2021 (Exhibit 46).

Exhibit 45
Low LTV limits for Swiss Pfandbriefe
Maximum loan-to-property value limit in accordance with law or contract



Issuance LTV limit caps the amount of covered bonds that can be issued against the property value
Source: Moody's Investors Service

Exhibit 46
Most programmes have high OC levels
Minimum committed OC level and actual OC level



Committed minimum OC levels consists exclusively of loan parts within the LTV issuance limits. Actual in-place OC includes loan parts above the LTV issuance limits in the case of UBS and CS. For Pfandbriefe, OC means the amount of overcollateralisation (in the form of cover pool mortgage loans) for intermediate loans.
Source: Moody's Investors Service

In combination, LTV limits and OC levels determine the property value backing each CHF 100 of covered bonds (minimum property coverage ratio). The higher this ratio, the more resilient covered bonds are against property value declines. The minimum property coverage ratios for Swiss programmes range (1) from 129 (Valiant) to 172 (PBZ) based on committed OC levels and (2) from 184 (Valiant) to 211 (PBH) based on actual OC levels, as Exhibit 47 shows.

Exhibit 47

Generally high coverage across the market

Minimum property value per 100 CHF of covered bonds liabilities based on LTV limits and OC levels

	PBZ	PBH	Valiant	UBS	CS
Based on committed OC	172	162	129	145	168
Based on actual OC	194	211	184	188	202

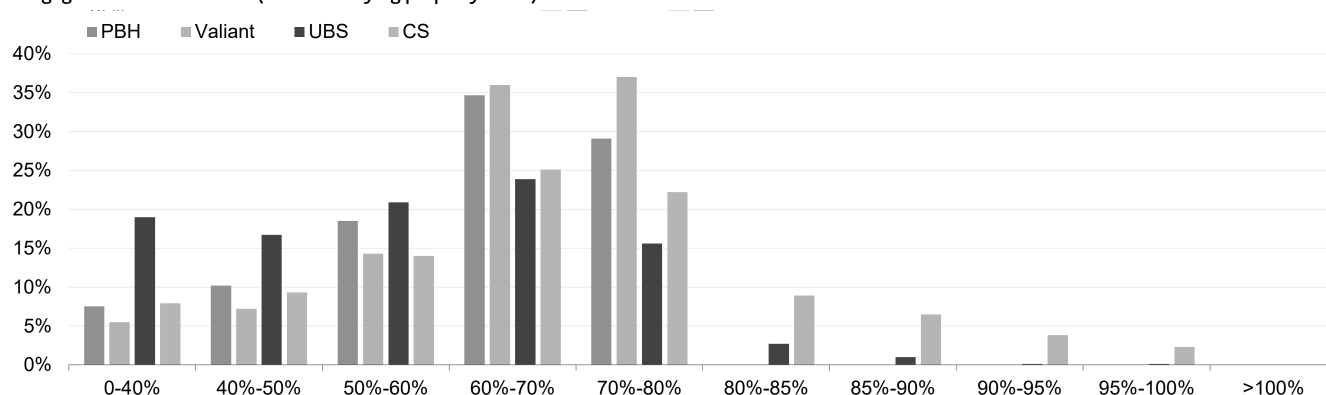
For Pfandbriefe: OC means the amount of overcollateralisation (in the form of cover pool mortgage loans) for intermediate loans. Pool level view, ignoring different OC levels at owner bank level.
Source: Moody's Investors Service

In practice, property coverage is even higher because actual LTV levels are generally below the LTV limit, as Exhibits 48 shows.

Exhibit 48

Actual LTV levels are generally below maximum LTV limits

Mortgage loan to value ratios (% of underlying property value)



Based on property market value for lending purposes at the time of loan orgination (no frequent indexing of property values).
Information not disclosed for PBZ. Valiant does not count loan parts above 80% as cover pool collateral.
Source: PBH, Moody's Investors Service

Pfandbrief cover pool quality is further strengthened by owner bank encumbrance limits and owner bank support

The Pfandbrief institutions set encumbrance-based limits on the amount they lend to owner banks. For each owner bank, the limit is set at 35% (for PBZ) or 40% (for PBH) of the bank's total domestic mortgage loans, and any structured covered bonds issued by an owner bank are taken into account. The purpose of the encumbrance limit is to ensure that owner banks have ample unencumbered assets available if, for example, nonperforming cover pool mortgage loans need to be replaced.

We expect owner banks will provide additional collateral if their loans underperform or property prices fall.[17] Moreover, Pfandbrief institutions may increase OC requirements if, for example, the credit quality of an owner bank deteriorates[18]. Only loan parts up to 67% of the property value count as collateral for intermediate loans.

In addition, even if the Pfandbrief institution has defaulted, so long as an owner bank remains a going concern, it will make payments under its intermediate loan and effectively shield Pfandbriefe from losses on cover pool mortgages. This is a particular credit strength for Swiss Pfandbriefe.

4.4 Market risk is low, especially for Pfandbriefe

Refinancing risk

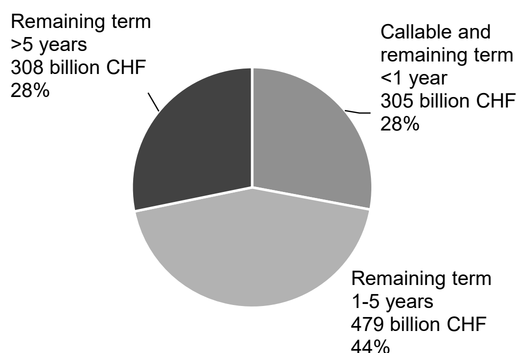
There is no refinancing risk for Swiss Pfandbriefe to the extent they are backed by intermediate loans granted to performing owner banks[19]. This is because Pfandbriefe and intermediate loans are fully matched. However, should an owner bank become insolvent, this portion of the Pfandbriefe would have a maturity mismatch with the relevant pool of underlying mortgages, resulting in refinancing risk. By contrast, structured covered bonds are not matched to cover pool assets and therefore have greater exposure to refinancing risk. This risk is mitigated to some degree by the use of soft bullets and pre-funding arrangements.

Compared to other covered bond markets, asset-liability maturity mismatches for both Pfandbriefe and Swiss structured covered bonds are relatively low. This is partly due to the short remaining term of Swiss mortgages (Exhibit 49); most are fixed rate loans that mature within five years and are then repayable in full[20]. In addition, Pfandbriefe have relatively long maturity dates, which improves maturity matching (Exhibit 50).

Exhibit 49

72% of Swiss mortgage loans mature within 5 years

Mortgage loan maturity distribution for Swiss banking system

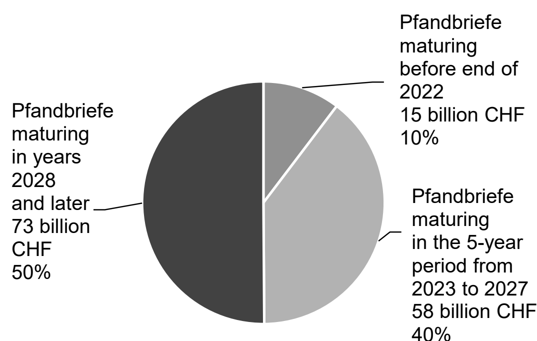


Data as of June 2021. At a system-wide level, the maturity structure of Swiss mortgage loans has been relatively stable over time, although there has been a trend towards long-term (5-10 year) mortgage origination in recent years.
Source: Swiss central bank SNB

Exhibit 50

50% of Swiss Pfandbriefe mature within 5 years

Maturity distribution of Swiss Pfandbriefe



Data as of June 2021. Pfandbrief institutions have extended the maturity profile of Pfandbrief issuances in recent years.
Source: Moody's Investors Service

Combination of maturity matching and OC mitigate refinancing risk for Pfandbriefe

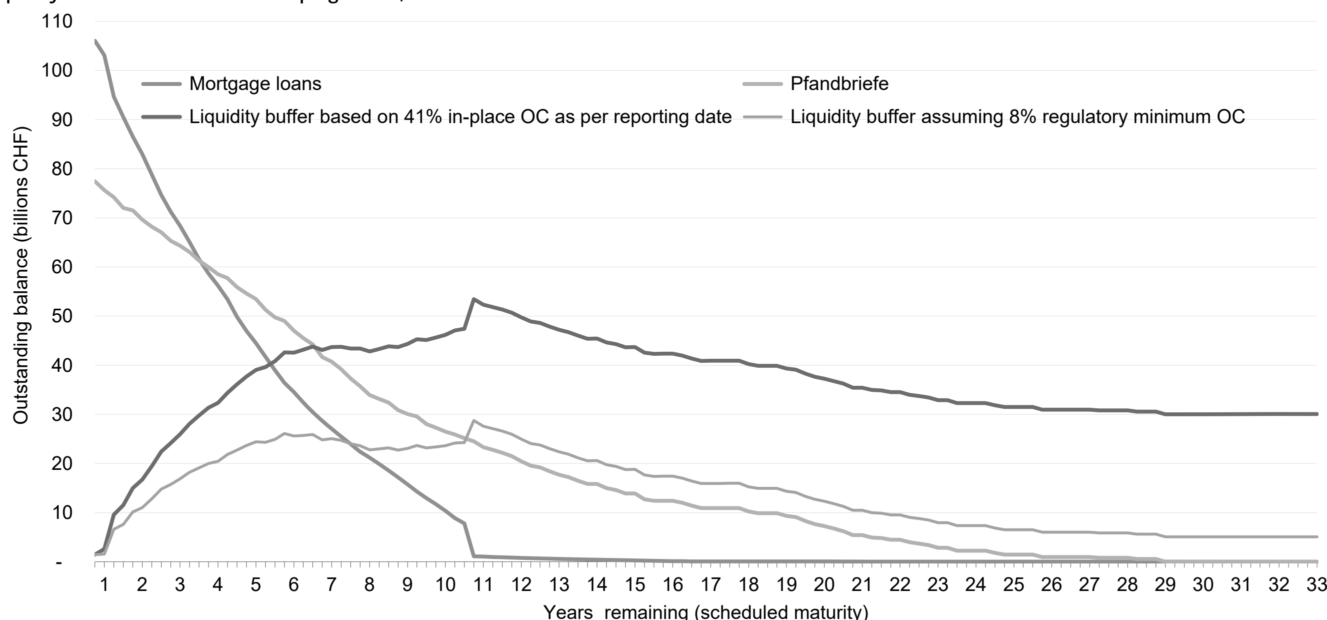
Swiss Pfandebriefe benefit from a combination of favourable maturity matching and strong cover pool quality, including high OC levels. As a result, if the large majority of mortgage cash flows are paid when due, they should be sufficient to meet all scheduled Pfandbrief payments in a timely manner and fire-sale risk for mortgage loans should be largely avoided.

By way of example, our 'maximum mismatch[21]' for PBH is 0% (i.e. the best possible level), which is much lower than the European average of 43%.[22] Moreover, PBH's scheduled cover pool mortgage payments exceed its scheduled Pfandbrief maturities. As a result, following the default of owner banks, PHB will build up a liquidity buffer that can be used to cover future cash flow shortfalls. Based on the minimum required OC of 8%, PBH's liquidity buffer is projected to exceed the amount of outstanding Pfandbriefe from year 11 onwards (Exhibit 51), although collateral losses in the mortgage loan portfolio will reduce the buffer.

Exhibit 51

PBH's liquidity buffers exceed outstanding Pfandbriefe from year 11 onwards

Liquidity buffer for PBH's Pfandbrief programme, at different OC levels



Figures based on contractual principal cash flows, ignoring credit risk. In a severe stress scenario, the Pfandbrief institutions ability to obtain long-term funding may be restricted. In case of insolvency of the Pfandbrief institution, the maturity profile may become front-loaded. Pool level view, ignoring different OC levels at owner bank level.

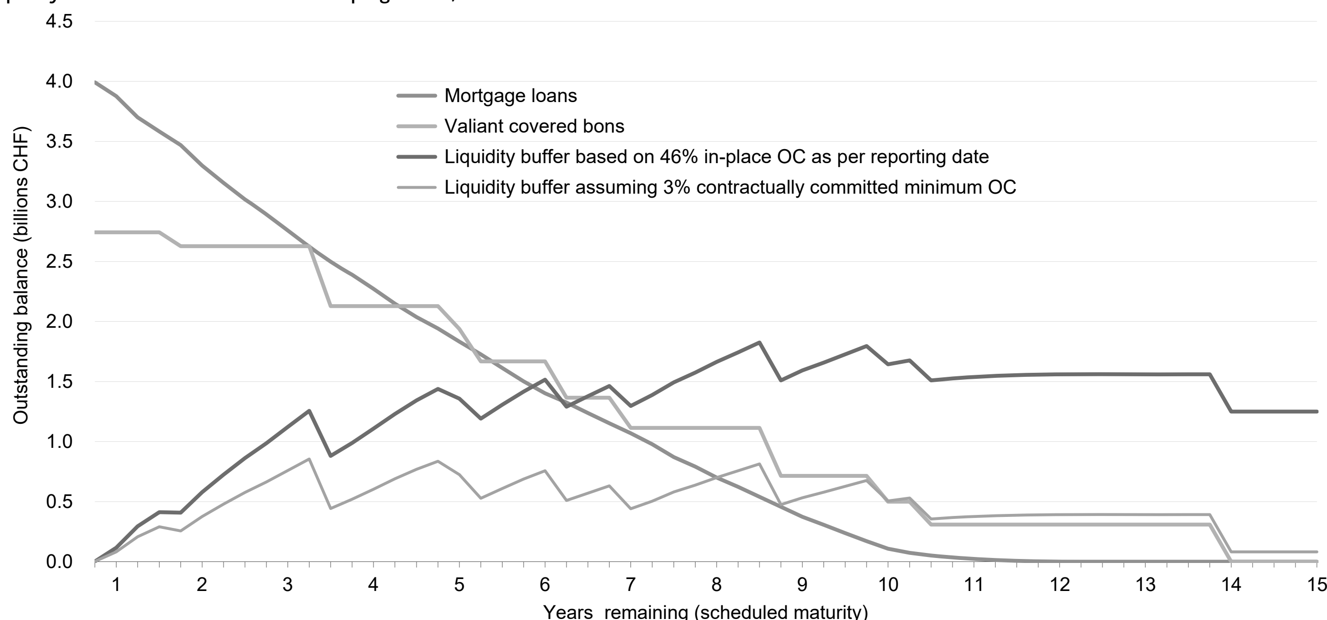
Source: Moody's Investors Service, based on PBH's reporting data per end June 2021

Asset-liability maturity mismatches is generally higher for structured covered bonds

The asset-liability maturity mismatch for structured covered bonds is generally higher than for Swiss Pfandbriefe. This is because structured programmes are much smaller and less seasoned, so the maturity profile of their bonds is more uneven. For example, the 'maximum mismatches' for Credit Suisse is 50%.

However, by way of exception, the 'maximum mismatch' for Valiant's programme is the same as for PBH (i.e. 0%), largely because the amount of contractual principal cash inflows from underlying mortgage loans exceeds the cash outflows from the scheduled covered bond maturities, leading to the build-up of a liquidity buffer. Based on the minimum required OC of 3%, the projected liquidity buffer for Valiant exceeds the amount of outstanding covered bonds from year 10 onwards (Exhibit 52), although collateral losses in the mortgage loan portfolio will reduce the liquidity buffer as borrowers default on their mortgage payments.

Exhibit 52
Valiant's liquidity buffers exceed outstanding covered bonds from year 10 onwards
Liquidity buffer for Valiant's covered bond programme, at different OC levels



Figures based on contractual principal cash flows, ignoring credit risk. In a severe stress scenario, Valiant's ability to obtain long-term funding may be restricted. Cash outflows are based on the bonds' scheduled maturity date, not considering the possibility to extend the bond term by one year.
Source: Moody's Investors Service, based on Valiant's reporting data per end September 2021

Low risk of acceleration-driven fire sales for Pfandbriefe; no risk for structured covered bonds

In the currently highly unlikely event that a Pfandbrief institution fails, there is a risk that the Pfandbriefe become immediately due and payable, scheduled interest payments no longer fall due, and cover pool assets will be subjected to a fire sale. If this risk materializes, it is very improbable that the Pfandbriefe can be fully repaid immediately, despite the high cover pool quality and favorable mortgage maturity profile. Refinancing losses are likely to be very high. This is because in such a scenario the Swiss banking system would almost certainly be under extreme stress.

However, the likelihood of such an acceleration-driven fire sale is low. Legal advice on the acceleration risk of Swiss Pfandbriefe indicates that changes to the bonds' scheduled maturity dates are unlikely. The wind down of a Pfandbrief institution is largely within FINMA's control as Swiss regulator and resolution authority, and there is no 'automatic' acceleration of the Pfandbriefe.[23] Moreover, even if FINMA decides to accelerate the Pfandbriefe, we do not expect it will execute a fire sale of cover pool assets (implicitly, pursuing the forced liquidation of large volumes of residential mortgage loans) if it would result in significant losses to investors. We expect FINMA's workout strategy will be optimised to suit the interests of Pfandbrief investors as they will likely be the only material creditors of an insolvent Pfandbrief institution.

In contrast to Swiss Pfandbriefe, the terms and conditions of structured covered bonds exclude the possibility of acceleration upon issuer insolvency. This reduces asset fire sale risk and ensures continuation of scheduled interest payments, but means that later maturing covered bonds are more exposed to cover pool losses due to time subordination.

Exhibit 53 summarises the acceleration-related risks for Swiss Pfandbriefe and structured covered bonds at the beginning of issuer insolvency.

Exhibit 53

Issuer insolvency does not trigger acceleration for structured covered bonds

Acceleration-related risks triggered by issuer insolvency for Pfandbriefe and structured covered bonds

Acceleration aspects following issuer insolvency	Prinicipal payments continue to fall due according to scheduled bond maturity dates?	Scheduled interest payments continue to fall due?	Time subordination of later maturing bonds maintained?
Pfandbriefe	Probable	Probable	Probable
Structured covered bonds	Yes	Yes	Yes

Source: Moody's Investors Service

Structured covered bonds have contract-based protections against refinancing

Refinancing risk for structured covered bonds is mitigated by contract-based protections, including pre-funding requirements for hard bullets and/or extendable maturity structures. However, in contrast to law-based covered bonds in EU member states, Swiss programmes are not required to maintain a 180-day liquidity buffer. The application of key contract-based refinancing protections for Swiss structured covered bond programmes is summarised in Exhibit 54.

Exhibit 54

Structured covered bonds benefit from contract-based refinancing protections

The application of key contract-based refinancing protections for Swiss structured covered bond programmes

	Valiant	UBS	Credit Suisse
Bond acceleration upon issuer default?	No	No	No
Pre-funding requirement?	No	Yes: Hard-bullet bonds need to be pre-funded by the issuer 12-months ahead if the issuer rating falls below P-1	Yes: Hard-bullet bonds need to be pre-funded by the issuer 12-months ahead if the issuer rating falls below P-1
Bond maturity extension?	Yes: Soft-bullet bonds extend their maturity date by 12-months if the issuer and guarantor fail to redeem the covered bonds on their scheduled maturity date	Yes: Soft-bullet bonds extend their maturity date by 12-months if the issuer and guarantor fail to redeem the covered bonds on their scheduled maturity date	Yes: Soft-bullet bonds extend their maturity date by 12-months if the issuer and guarantor fail to redeem the covered bonds on their scheduled maturity date
180-day liquidity buffer?	No	No	No

Source: Moody's Investors Service

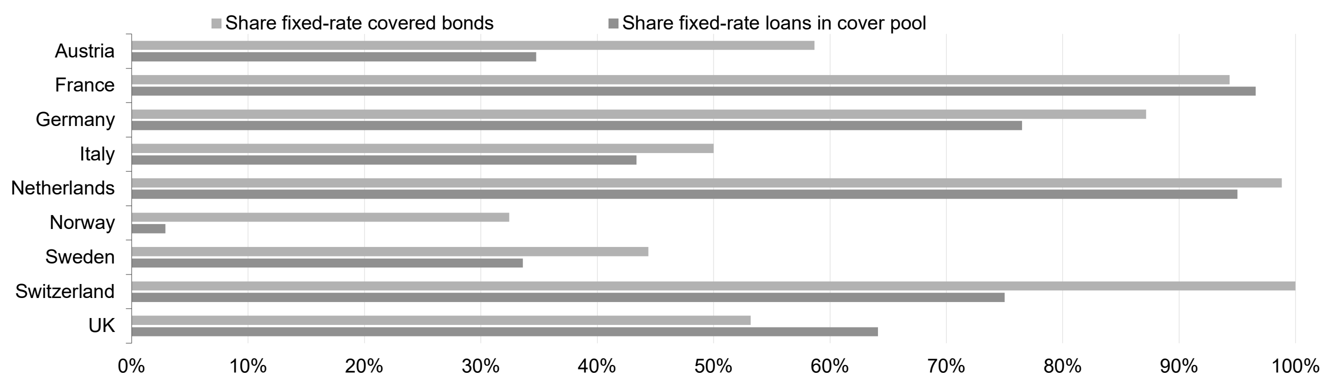
Interest rate risk

The risk of interest rate mismatches for Swiss Pfandbriefe's and structured covered bonds is low because both assets (underlying mortgage loans) and liabilities largely pay fixed rate interest, as Exhibit 55 shows.

Exhibit 55

In Switzerland, largely fixed rate assets, fixed rate bonds

Share of fixed rate, as a % of total outstanding



Loans with remaining interest rate fixing period of less than 1 year counted as floating

Source: Moody's Investors Service, Swiss central bank SNB

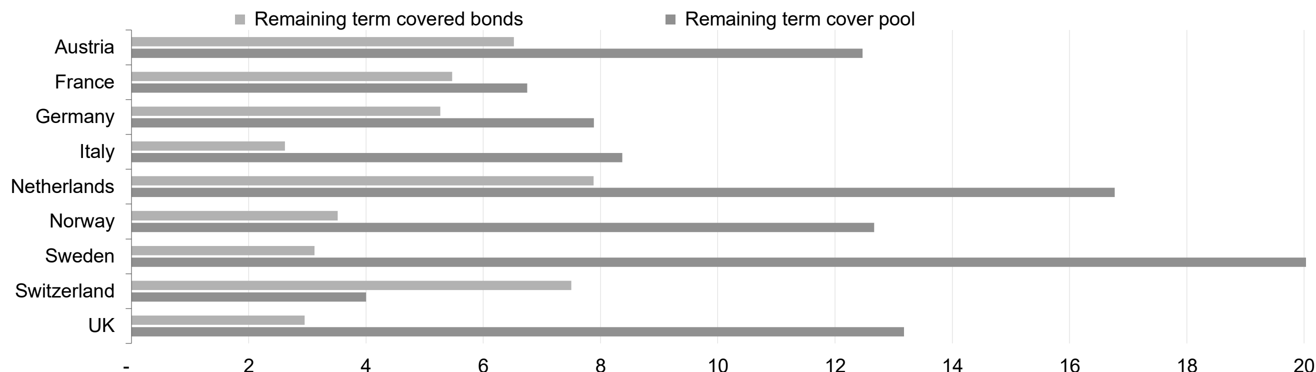
Borrower default risk of fixed rate mortgages is less sensitive to rising interest rates than floating rate mortgages, a credit positive.

Conversely, fixed rate loans, in particular with long fixing periods, increase the risk of market losses when assets are sold. However, this risk is tempered by the short duration of Swiss mortgages; as Exhibit 56 shows, by contrast to peer countries, the fixed rate periods of Swiss mortgages are generally shorter than that of covered bonds and Pfandbriefe.

Exhibit 56

Switzerland with fixing periods of assets shorter than that of covered bonds

Remaining term of mortgages and covered bonds, in years



Source: Moody's Investors Service, Swiss central bank SNB

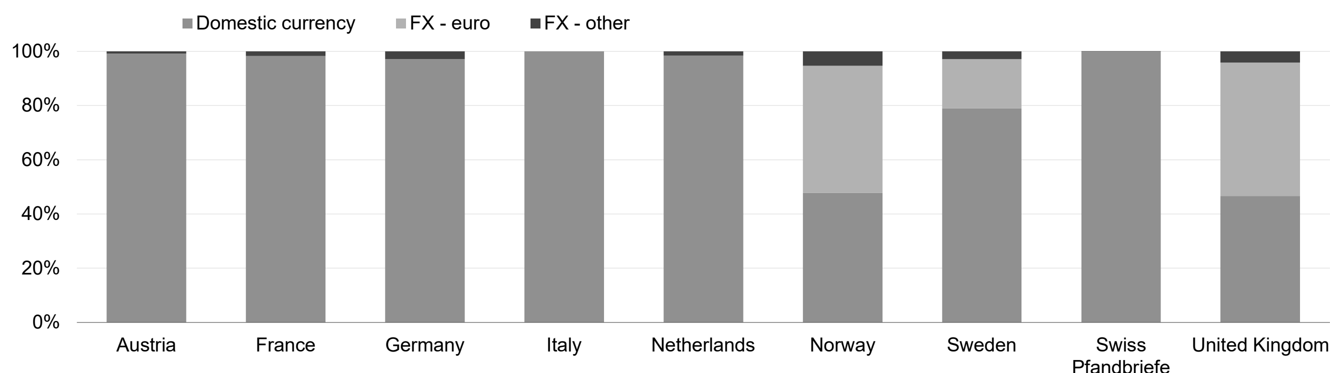
Currency risk

Swiss Pfandbriefe are not exposed to currency mismatches because all Pfandbriefe, intermediate loans and mortgage loans are denominated in Swiss francs and the underlying properties are all located in Switzerland. Covered bond programmes in peer countries outside the euro area are typically exposed to currency risk because they rely on more non-domestic funding, in particular from the euro area. Exhibit 57 compares the shares of domestic currency-denominated covered bonds across key European markets, including the Swiss Pfandbriefe market.

Exhibit 57

Swiss Pfandbriefe have no currency risk

Share of bonds issued in domestic vs foreign currency, as % of total covered bonds outstanding in selected European markets



Source: Moody's Investors Service

Similarly, all mortgage loans backing structured covered bonds are denominated in Swiss francs. However, only Valiant exclusively issues Swiss franc covered bonds; UBS and Credit Suisse largely issue euro-denominated covered bonds, giving rise to currency risk. Exhibit 58 shows the currency distribution of covered bonds issued by Swiss structured programmes.

Exhibit 58

No foreign exchange risk for Valiant's covered bonds

Share of covered bonds by currency

Programme	CHF	EUR	NOK
Valiant	100%	0%	0%
UBS	0%	95%	5%
Credit Suisse	0%	100%	0%

The cover pool of all programmes is denominated in Swiss Franc

Source: Moody's Investors Service

Both UBS and Credit Suisse use swaps to hedge currency risk. In each case, the issuer acts as swap counterparty, but there are rating triggers requiring them to:

(i) post collateral on downgrade below A2; and

(ii) find a replacement counterparty on downgrade below A3.

These rating triggers minimize the counterparty credit risk of these internal swap arrangements. The swaps activate only upon the activation of the guarantee of the covered bonds, so latest upon insolvency of the issuer.

5.0 Performance trends

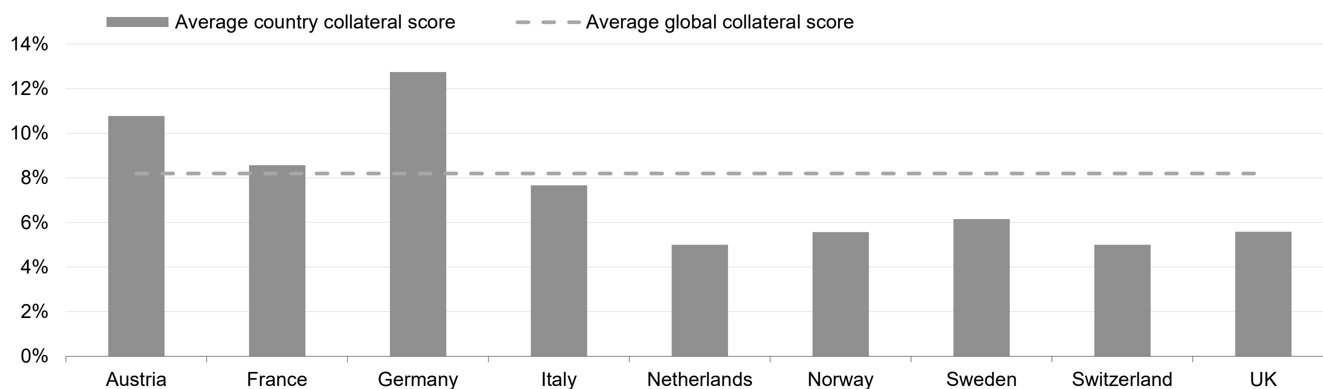
5.1 Collateral scores are low, reflecting the low credit risk of the cover pools

We use collateral scores to measure the credit risk of cover pool assets. The lower the collateral score, the lower the credit risk of the cover pool. Our collateral score for each Swiss Pfandbriefe and structured covered bond programme is 5%, which is significantly lower than the global average for mortgage programmes (8.2%), as Exhibit 59 shows.[24]

Exhibit 59

Credit quality of Swiss mortgage cover pools is very strong compared to global average

Average collateral scores across covered bond programmes, as % of cover pool value



Mortgage covered bond programmes only. Relatively high average collateral scores for Austria and Germany are largely due to commercial real estate loans.
Source: Moody's Investors Service

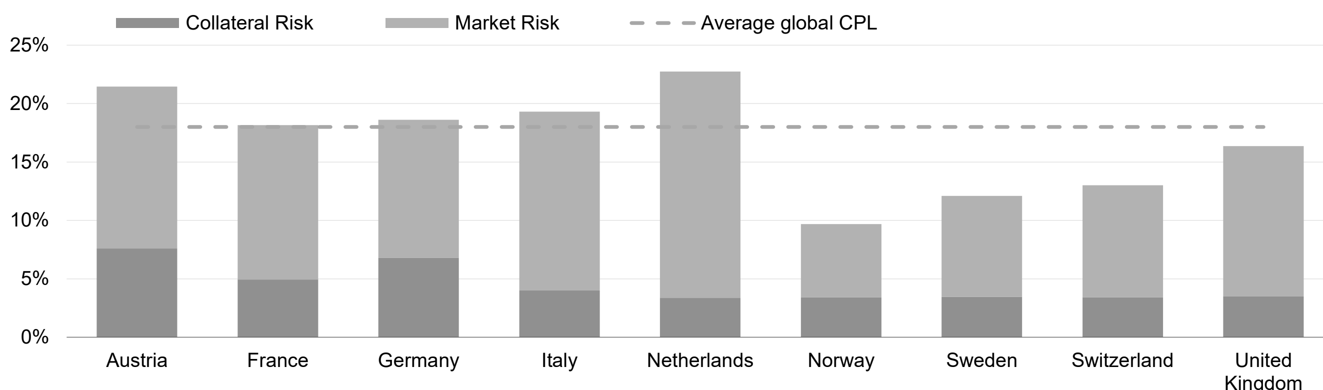
5.2 Cover pool losses are low, in line with peer markets

Cover pool losses are an estimate of the amount of cover pool assets that would be written down following an issuer default.[25] In keeping with most other markets, the largest component of Swiss cover pool losses relates to market risk, which includes refinancing, interest rate and currency risks. For Swiss programmes, we expect average cover pool losses of 13%, which is lower than the 18% global average, for the reasons described in Section 4.3 and 4.4 above (Exhibit 60).[26]

Exhibit 60

Expected cover pool losses (CPL) in Switzerland are lower than for most other markets

Losses due to collateral risk and market risk, as % of cover pool value



Mortgage covered bond programmes only. Relatively high cover pool losses for Austria and Germany are largely due to commercial real estate loans.
Source: Moody's Investors Services

In the period following a Pfandbrief institution's failure, the Swiss financial system will be under high stress, the performance of cover pool mortgage loans will likely be materially affected and the options to liquidate mortgages will have become very limited. The amount of cover pool losses for Swiss Pfandbriefe is therefore more uncertain than for a typical covered bond programme backed by a single bank. It is particularly dependent on the regulator's pursued workout strategy and, importantly, its time horizon.

However, even following a Pfandbrief institution's failure, we assume that a number of owner banks will continue to make full and timely payments under their intermediate loans, thereby effectively shielding Pfandbriefe from mortgage loan performance risk. We also expect that the mortgage cover pool quality will be maintained at a high level up to the insolvency of an owner bank, given its obligation to replace non-performing loans and maintain committed OC levels. Further, there is essentially no market risk for any portion of the Pfandbriefe that is secured with intermediate loans granted to owner banks that continue as going-concerns, as the

intermediate loans fully match the Pfandbriefe's scheduled maturity date. This is a particular strength of Swiss Pfandbriefe compared to covered bond programmes backed by single banks, and we take account of it in our cover pool loss assessment.

Cover pool losses are fairly consistent across Swiss programmes, ranging from 12% (PBH) to 16% (UBS and Credit Suisse), as Exhibit 61 shows. The higher cover pool losses of UBS and Credit Suisse relative to Valiant are a reflection of the programmes' currency risk exposure.

Exhibit 61

Average of cover pool losses from different scenarios is quite similar across Swiss programmes

Cover pool loss expectations following issuer default for the Swiss covered bonds

	Covered bond rating	Collateral risk	Market risk	Cover pool losses
PBH	Aaa	3%	9%	12%
PBZ	Aaa	3%	11%	14%
Valiant	Aaa	3%	10%	13%
UBS	Aaa	3%	13%	16%
Credit Suisse	Aaa	3%	13%	16%

Source: Moody's Investors Service

5.3 Likelihood of timely payment is 'Probable' for Swiss programmes

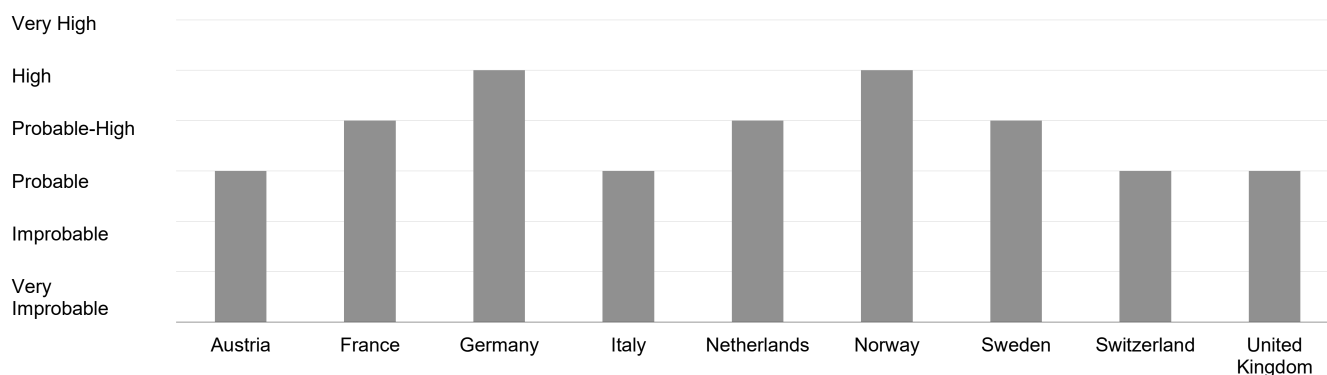
Our timely payment indicator (TPI) indicates the probability that covered bond payments would continue to be made on time following a default of the issuer, and limits the uplift that covered bond ratings can achieve over the issuer's Covered Bond Anchor.[27] The higher the probability of timely payment, the higher the potential rating uplift over the issuer's Covered Bond Anchor.

Our TPI for all Swiss Pfandbriefe and structured covered bonds is 'Probable', indicating a timely payment probability of 50-75% following failure of the issuer. The 'Probable' TPI indicates that, all else being equal, the credit strength of the covered bonds has a relatively significant dependence on the supporting credit institution. Across Europe, around half of all covered bond programmes have a 'Probable' TPI, while programmes in several peer countries have a higher TPI (Exhibit 62).

Exhibit 62

Programmes in Switzerland's peer markets have a higher TPI than Swiss programmes

Typical TPI category of covered bond programmes in selected countries



Source: Moody's Investors Service

TPI considerations for Swiss Pfandbriefe and Swiss structured covered bonds

The considerations that drive the 'Probable' TPI assessment differ for Pfandbriefe and structured covered bonds. Most of the individual TPI drivers for Pfandbriefe are very strong,[28] but the overall TPI is capped to 'Probable' due to uncertainty as to whether Pfandbriefe would become immediately due for repayment following insolvency of the Pfandbrief issuer (see Section 4.4). In comparison,

structured covered bonds' key weakness is the lack of systemic and financial market support, while their liability characteristics are more favourable as the bonds' maturity extension mitigates asset fire-sale risk.

Exhibits 63 and 64 show the key drivers of our 'Probable' TPI assessment for Pfandbriefe and structured covered bonds, respectively.

Exhibit 63
Multiple strengths for Pfandbriefe, but TPI capped by Pfandbriefe's liability characteristics
Drivers of 'probable' TPI for Pfandbriefe

Drivers of 'Probable' TPI	TPI positive (+) TPI negative (-)	Relevant characteristics
Asset characteristics	+	Intermediate loans give direct recourse to a large number of owner banks that are representative of the Swiss banking system, but there is no joint liability.
	+	Intermediate loans are secured by high-quality mortgages, mostly over residential properties. Maximum LTV of 67%.
	+	High minimum OC requirements,with possibility for Pfandbrief issuer to demand higher OC from owner banks in certain cases. Asset encumbrance limits support owner banks' ability to provide additional OC.
	+	High mortgage pool quality will be maintained until owner bank insolvency (requirements to replace non-performing loans and potential revaluation if property prices fall).
	+	Short mortgage terms reduce asset-liability maturity mismatches.
Liability characteristics	-	Hard bullet bonds.
	-	Risk of acceleration and asset fire sale upon insolvency of the Pfandbrief issuer. However, this is not our base case expectation.
	+	Intermediate loans are fully matched with the Pfandbriefe, so going-concern owner banks will continue to provide cash flows to meet scheduled Pfandbriefe payments following issuer default.
	+	Low asset-liability scheduled maturity mismatches because (i) contractual term of mortgage loan is relatively short and (ii) contractual term of Pfandbriefe is relatively long, compared to most covered bond programmes
Currency / interest rate risk	+	No currency risk.
	+	No interest rate risk between Pfandbriefe and intermediate loans. Mismatches to underlying mortgage loans low because most loans have fixed interest rates (100% of Pfandbriefe are fixed rate).
Legal framework	+	Only two institutions designated by law to act as refinancing vehicle, but open to all Swiss mortgage lenders.
	+	Business activity of Pfandbrief issuer limited to fullfill the role as refinancing platform.
	+	If an owner bank or a Pfandbrief institution is at risk of failing, FINMA as financial regulator and resolution authority has broad powers to intervene.
	+	Cover pool administrator appointed by FINMA upon owner bank insolvency, tasked with full and timely repayment of intermediate loans, and hence Pfandbriefe
	-	No limitation on investment property or commercial real estate financings.
	-	No requirement to build up loss absorbing capital buffers, which could facilitate the resolution of an Pfandbrief institution and reduce the risk of its insolvency.
	-	Limited reporting and data transparency requirements.
Systemic and financial market support	+	Swiss Pfandbriefe are eligible collateral for Swiss central bank funding.
	+	Strong historic performance reflects market confidence in the instrument. Pfandbriefe seen as government bond surrogate.
	+	Stringent regulatory oversight; for example, valuation guidelines and Pfandbrief by-laws, including minimum OC levels, require approval of the Swiss Federal Council.
		In case of PBZ: member banks are owned by Swiss cantons, some benefiting from a cantonal guarantee.
	+	Almost all Swiss mortgage lenders are owner banks, and therefore stakeholders benefiting from a functioning Pfandbrief system. However, owner banks are competitors and business interests could diverge over time.
	-	High correlation between the Pfandbrief issuers and the wider Swiss banking system, reducing the likelihood of timely payment following issuer default.

Source: Moody's Investors Service

Exhibit 64

Strong asset and liability characteristics balanced by lack of legislation and systemic support

Drivers of 'probable' TPI for structured covered bonds

Drivers of 'Probable' TPI	TPI positive (+) TPI negative (-)	Relevant characteristics
Asset characteristics	+	High-quality mortgages, secured over residential properties. LTV limit depends on CB programme but maximum is 80% of property market value, in line with European market standards.
	+	Expectation that issuer's would increase the OC commitment to maintain their Aaa rating, although there is no obligation for the issuer to do this. If covered bonds are downgraded, the last OC consistent with a Aaa rating remains locked-in with few exceptions.
	+	Expectation that high pool quality will be maintained until issuer default as non-performing loans count less in the asset coverage requirement.
	+	Short mortgage terms reduce asset-liability maturity mismatches.
Liability characteristics	+	Pre-funding requirements or soft bullet bonds (with 12-month maturity extension) mitigate refinancing risk by reducing the likelihood of asset fire-sales.
	+	No acceleration of structured covered bonds triggered by issuer insolvency.
	+	Typically low asset-liability maturity mismatch because contractual term of mortgage loan is relatively short compared to most covered bond programmes.
Currency / interest rate risk	-	Some covered bond programmes exhibit significant currency risk as the bonds are denominated in non-CHF currency (typically euro).
	+	Currency risks are hedged, typically via swaps provided by counterparties belonging to the issuer. Rating triggers mitigate counterparty default risk.
	+	Interest rate mismatches are limited because most covered bonds and assets have fixed rates.
Contractual framework	+	Rating triggers require the issuer to use reasonable efforts to replace itself in respect of its servicing, cash management and account bank roles, thereby reducing operational risks and linkage to the issuer.
	-	No dedicated covered bond legislation or covered bond specific regulatory oversight. Implicitly this also means less standardisation of programmes accross the Swiss market.
	-	According to the transaction documents, the guarantor will not be able to sell the entire cover pool at once but is restricted by the staggered maturity of the pre-funding obligations that largely mirror the bonds' maturity profile.
	-	Complex operational requirements; e.g. multiple notices are needed for the guarantor to access cover pool cash flows.
	-	For soft bullet bonds, no 180-day liquidity buffer to support timely covered bond payments following issuer default.
Systemic and financial market support	-	Systemic support lower than for law-based Pfandbriefe.
	-	Structured covered bonds are not eligible collateral for Swiss central bank funding.
	-	The issuers of structured covered bonds are also owner banks of the Pfandbrief issuers and participate in the Pfandbrief system. Having Pfandbriefe as well established alternative funding source may reduce the likelihood of support for the structured covered bond programmes.
	+	Prime, standardised assets that would attract the interest of other Swiss banks if they look to expand their footprint in the mortgage market.

Source: Moody's Investors Service

5.4 Combination of TPI Leeway and surplus OC protects against credit quality deterioration of issuers

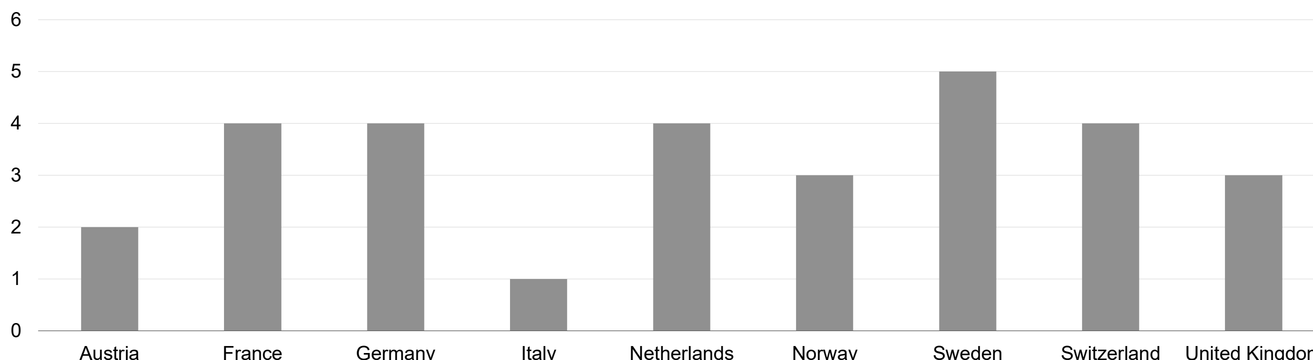
Our TPI leeway describes the number of notches the Covered Bond Anchor of the issuer could be lowered without triggering a downgrade of covered bonds (subject to certain assumptions). It reflects both the TPI assessment of the programme and the credit strength of the issuer.

Swiss covered bond programmes have an average TPI leeway of four notches, which is strong compared to other key markets (Exhibit 65).

Exhibit 65

Swiss programmes' TPI Leeway is strong

Average TPI leeway, in number of rating notches, for programmes in selected markets



Only mortgage covered bond programmes

Source: Moody's Investors Service

The greater the combined levels of TPI Leeway and surplus OC,[29] the more robust a covered bond programme is likely to be against a deterioration in the credit quality of the issuer or supporting banks. If the credit quality of the issuer (or supporting banks) declines, the credit quality of the covered bonds can be supported by adding further OC to the programme.

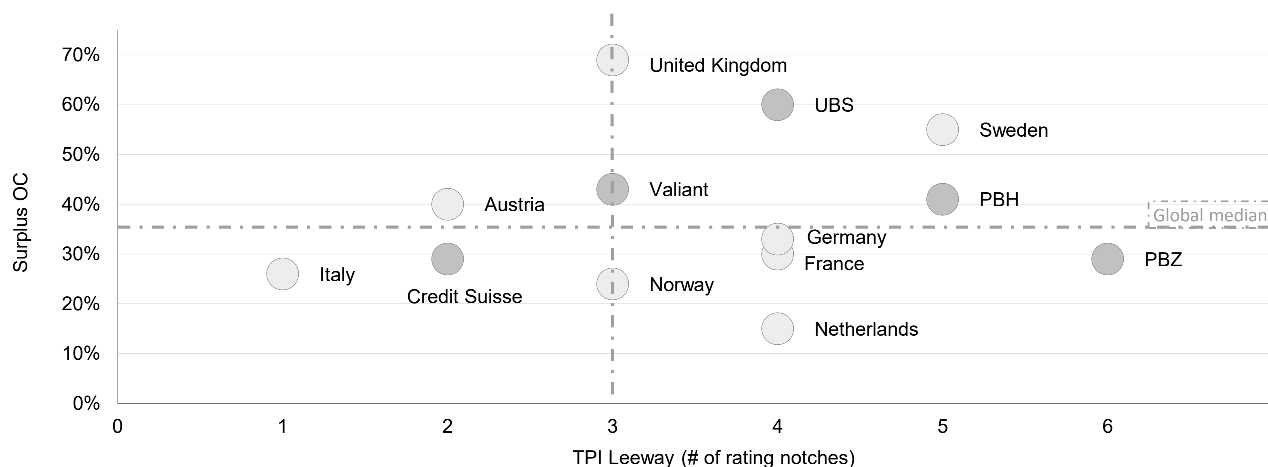
On a global comparison, Swiss Pfandbriefe are particularly robust against credit deterioration. Only 15% of the 247 covered bond programmes rated by Moody's have a TPI Leeway of 5 notches or more. More specifically, out of 126 Aaa-rated mortgage covered bond programmes, just 29 programmes have a TPI Leeway of at least 5 notches and only 10 have a TPI Leeway of at least 6 notches.

Exhibit 66 shows the TPI Leeway and surplus OC of Swiss Pfandbriefe and structured covered bonds in comparison to other key markets. The combination of high TPI Leeway and high surplus OC indicates that a covered bond programme is particularly robust against a deterioration of the issuer's credit strenghts.

Exhibit 66

Swiss Pfandbriefe are well-protected against the risk of weaker issuers and supporting banks

TPI leeway and surplus OC for Swiss mortgage covered bond programmes and selected markets



Mortgage covered bond programmes only. For Pfandbriefe: OC means the amount of overcollateralisation (in the form of cover pool mortgage loans) for intermediate loans. Pool level view, ignoring different OC levels at owner bank level.

Source: Moody's Investors Service

5.5 Swiss Pfandbriefe have performed strongly in times of market stress

Swiss Pfandbriefe tend to outperform in periods of heightened stress, with comparable safe-haven qualities to the strongest covered bond markets such as German Pfandbriefe. Exhibit 67 shows the development of new bond issuance activity and spreads of Swiss Pfandbriefe during periods of pronounced market disruption.[30] Typically, during a financial crisis, the ability of issuers to place covered bonds in the market is constrained, causing some to postpone funding plans in the expectation of more favorable pricing conditions in the future and some to rely on their central bank as lender of last resort. However, Pfandbriefe have maintained market access throughout all periods of market stress, except during the height of the global financial crisis.

Exhibit 67

Except in 2008, limited spread widening and continued issuance activity during market disruptions
Change of new issuance spreads and issuance amount for Pfandbriefe during times of market disruptions

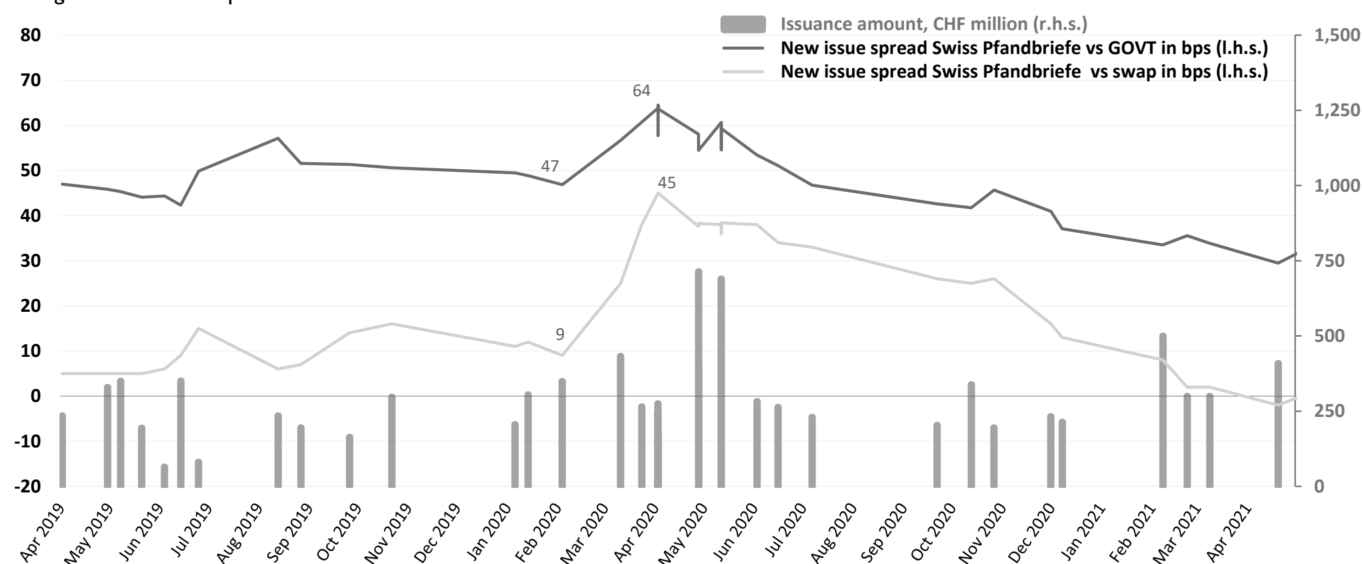
	Widening of Pfandbrief spreads			Level of new issuance activity
Market disruptions	vs government bonds	vs 10 year asset swaps	time span	(primary market placements)
Coronavirus	17 bps	36 bps	2 months	Strong activity
2008 global financial crisis	39 bps	32 bps	10 months	Largely absent
Euro area sovereign debt crisis	26 bps	20 bps	7 months	Regular
CHF-euro dislocation	17 bps	10 bps	1 month	Weak activity
Greece IMF default	14 bps	0 bps	1 month	Strong activity

Source: Zuercher Kantonalbank, Moody's Investors Service

During the most recent market turbulence in March 2020, Swiss Pfandbriefe initially experienced notable spread widening. However, spreads quickly retraced and issuance activity continued unabated throughout the crisis, as Exhibit 68 shows.

Exhibit 68

Pfandbrief issuance has continued amid coronavirus disruptions
Change of new issuance spreads and issuance amounts for Swiss Pfandbriefe



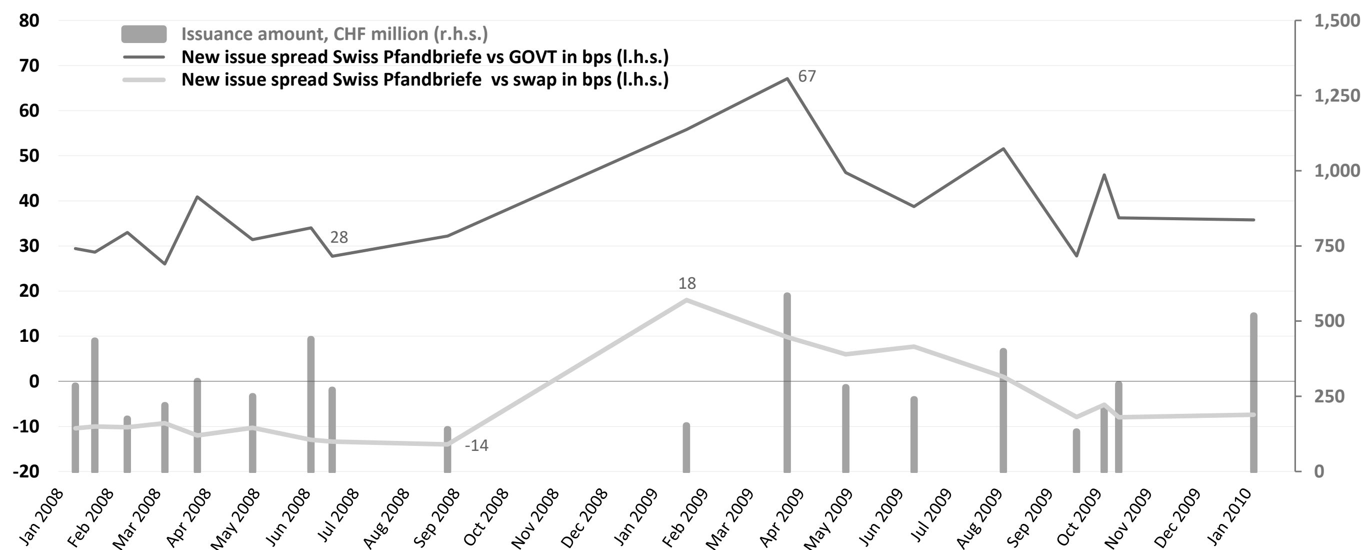
Source: Zuercher Kantonalbank, Moody's Investors Service

The largest spread widening for Swiss Pfandbriefe occurred between July 2008 and April 2009, at the height of the global financial crisis, and this was accompanied by a decline in issuance activity (Exhibit 69). However, other covered bond markets experienced even wider spread widening during this period and greater issuance disruption.

Exhibit 69

In 2008, Swiss Pfandbriefe spreads widened and issuance was interrupted

Change of new issuance spreads and issuance amounts for Swiss Pfandbriefe



Source: Zuercher Kantonalbank, Moody's Investors Service

6.0 New ratings and issuance trends

6.1 New ratings

We did not assign any ratings to new Swiss covered bond programmes in 2021.

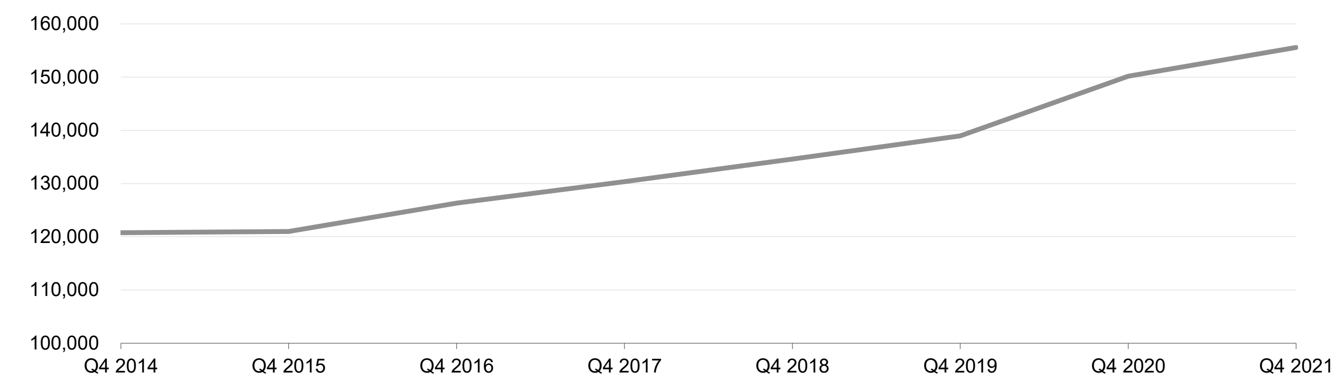
6.2 Issuance trends

In the quarter ending December 2021, we have assigned ratings to approximately CHF 155 billion of outstanding Swiss Pfandbriefe and structured covered bonds, see Exhibit 70.

Exhibit 70

Covered bond issuance has increased in recent years

Total amount of outstanding Swiss Pfandbriefe and structured covered bonds



Source: Moody's Investors Service

7.0 Rating action summary

We have taken no rating actions on Switzerland's covered bonds in 2021 and year to date 2022.

8.0 Moody's related publications

Credit opinion:

» Government of Switzerland – Aaa stable, November 2021

Sector in-depth

» Switzerland Macro Profile: Strong+, March 2021

» Banking System Outlook: Switzerland, March 2021

» Tighter investment property lending is credit positive for Swiss banks, covered bonds and RMBS, January 2020

» Switzerland reactivates capital buffer on banks' residential real estate assets, a credit positive, January 2022

Sector profile:

» Covered Bonds: Sector update – Q4 2021: Positive regulatory change in Europe will support covered bonds' credit quality in 2022, December 2021

Issuer comment:

» Credit Opinion: Valiant Bank AG - Mortgage Covered Bonds, March 2021

» Announcement: Increased uplift for Swiss covered bond programmes increases their rating robustness, September 2021

Legal frameworks:

» Swiss Pfandbriefe: Proposed amendments to Pfandbrief law are credit positive, 17 June 2019

» Swiss Pfandbriefe: Update to bank resolution framework will strengthen Swiss Pfandbriefe, 6 July 2020

Rating methodology:

» Moody's Approach to Rating Covered Bonds, December 2021

Webpages:

» Moody's covered bonds webpage

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Appendix 1: Link to each Swiss covered bond programme

Exhibit 71

Link to website of each covered bond programme

Follow the link below to reach the website of each covered bond programme

Programme Name	Covered bond rating
Pfandbriefbank schweizerischer Hypothekarinstitute - Mortgage Covered Bonds	Aaa
Pfandbriefzentrale der schweizerischen Kantonalbanken - Mortgage Covered Bonds	Aaa
Valiant Bank AG - Mortgage Covered Bonds	Aaa
UBS AG - Mortgage Covered Bonds	Aaa
Credit Suisse AG - Mortgage Covered Bonds	Aaa

Source: Moody's Investors Service

Appendix 2: Summary of Switzerland's social security net

Exhibit 72

Social security net is strong, in line with peer countries

Overview of key elements of Switzerland's income support measures

Type of support	Who is covered?	What is covered?	Main financial support
Sickness insurance	All residents in Switzerland	Health care cost	Health care cost
Continued income in case of sickness	No compulsory social insurance. Private insurance can be obtained, many employers provide this.		As per private insurance contract. Often 80% of salary.
Accident insurance	All employees & unemployed	Occupational accidents & diseases and, under conditions, non-occupational accidents	80% of insured salary, up to cap of CHF 148,200 annually.
Unemployment insurance	All employees, if employed at least 12 months over the past 24 months	Unemployment, reduction in working hours, employer insolvency	70%-80% of average pay up to cap of CHF 12,350 per month. Time-limited to about 1 year if employed for at least 18 months, or to about 1.5 years if over the age of 55.
Invalidity benefits	All residents in Switzerland	Helplessness allowance (need of permanent care)	Ranges from CHF 478 to CHF 1,912 per month depending on degree of helplessness.
Invalidity pension	Employees and self-employed	Work incapacity of at least 40% for 1 year and continuing	Depends on degree on invalidity and amount of accumulated old-age pillar 1 pension benefits. 50% of pillar 1 pension of 50% invalidity; 100% of pillar 1 pension from 70% invalidity.
Old-age pension	Pillar 1: Employees and self-employed Pillar 2: Employees earning more than CHF 21,510 annually	Starting form 65 (men), 64 (women) years old	Pillar 1 (unfunded pension scheme): Benefit depends on number of years contributed and average annual income. Ranges from CHF 14,340 to CHF 28,680 annually. Pillar 2 (funded pension scheme): 6.8% of accumulated assets is paid out.
Social assistance	All residents in Switzerland	Basic needs to guarantee a dignified human existence	Monthly payment depends on household size: CHF 997 (1 person), CHF 1,525 (2 persons), then increasing by about CHF 200-300 per additional person.

Source: European Commission, Directorate-General for Employment, social affairs and inclusion

Endnotes

1 Unless otherwise stated, this report is based on available information at the end of [Q1-2020].

2 See exhibits on vacancy rates and building completion rates.

3 The Swiss central bank notes in its Financial Stability Report 2021 that its overvaluation estimate is sensitive to the evolution of interest rates. The overvaluation is 30% when assuming real mortgage rates at the historic average of 2.6%, but 5% assuming a real mortgage rate of 1.0%, closer to the level in 2021.

4 On a broader measure, Swiss private sector indebtedness is 185% of GDP, with both the corporate sector and private households contributing to the economic leverage. By way of comparison, the equivalent indebtedness in the US and Sweden is 190% and 135%, respectively.

5 In the case of owner-occupiers, the deduction is applied against taxable imputed rental values. Interest payments are also deductible for investment properties.

6 The mortgage maximum was decreased from 90% to 75% and the amortisation period was shortened. For details, see Sector Comment 'Tighter investment property lending is credit positive for Swiss banks, covered bonds and RMBS' published 6 January 2020.

7 See Richtlinien der Schweizerischen Bankenvereinigung

8 We observe that most banks test whether a borrower can service the debt with less than one third of their gross income when applying a 5% stressed interest rate plus 1% amortisation and 1% property cost.

9 Besides the Pfandbrief Act (Pfandbriefgesetz), there are complementary documents, namely the Pfandbrief Ordinance (Pfandbriefverordnung), the articles of association of the Pfandbrief institutions and the valuation regulations (Schaetzungsreglement). While there have been limited modifications since the Pfandbriefgesetz came into effect in 1930, the Swiss parliament has make some strengthening amendments that we expect will come into effect in 2023.

10 Cantonal banks are deposit-taking retail and commercial banks, in which Switzerland's cantons (member states of the Swiss Confederation) hold significant stakes and shareholder voting rights. Some of the cantonal banks benefit from a guarantee of the canton.

11 The interest rate charged by the Pfandbrief institution to its member banks is marginally (3 to 5 basis points) higher than the interest rate of the Pfandbriefe, accounting for operational costs etc of the Pfandrief institution.

12 This includes no bail-in of intermediate loans.

13 Article 9 National Bank Act.

14 Swiss Pfandbriefe and structured covered bonds are excluded from bail-in to the extent they are backed by collateral.

15 PBH is reviewing the market value appraisals for the mortgages that secure its intermediate loans and applies lending value haircuts. For example, multi-family properties are typically valued at a cap rate of 7%, about twice the current market cap rate, and vacation homes carry a more conservative maximum LTV limit of 50% instead of 67%.

16 The canton Zurich's contribution to national GDP is almost twice that of the second largest contributor Bern (Bern, part of Espace Mittelland)

17 FINMA, the Swiss financial regulator, may request a revaluation of real estate properties if macroeconomic conditions change materially, which may mean that owner banks have to add further mortgage collateral to maintain OC levels.

18 We understand that Pfandbrief institutions can require up to 20% OC in specific circumstances (for example, if the owner bank has a sub-investment grade rating or there are shortcomings in the availability of property data) and that Pfandbrief institutions currently apply these requirements in certain cases

19 This is under the assumption that Swiss Pfandbriefe do not become due for immediate repayment at the insolvency of the Pfandbrief institution but instead maintain their scheduled bond maturity dates

20 Unlike in most jurisdictions, the standard contractual terms provide the lender with the ability to require a full repayment of the loan at the end of its fixed term period, subject to the delivery of a 90 day notice to the relevant borrower.

21 The calculation of the maximum mismatch is a measure of the portion of the cover pool that may be exposed to fire-sale risk given the asset and liability principal payment profiles and this mismatch is expressed as a percentage of the total outstanding covered bonds. A number of assumptions are made when calculating the maximum mismatch, including: (1) there are no future prepayments on the assets; (2) the calculation is based on principal flows only, i.e., we do not consider the interest net income which is usually credit positive as the cover pool assets typically yield a higher margin than the covered bond liabilities; and (3) the covered bonds are repaid at the earliest agreed maturity date, ignoring structural features, such as extension periods, that may reduce the portion of assets subject to fire-sale risk

22 See German Pfandbriefe: More of Cover Pool is Protected Against Fire-Sale Risk, 20 April 2014.

23 The insolvency of a Pfandbrief institution would not trigger the acceleration of its intermediate loans either.

24 Sector update Q4 2021 report.

25 We determine the cover pool losses by adding together the losses expected from collateral risk and from market risk. Collateral risk is the amount of losses we expect solely as result of the credit quality deterioration of the cover pool. The collateral risk equals the collateral score minus a haircut to reflect our expectation of ongoing issuer support until issuer insolvency. Market risk is the losses we expect as a result of asset-liability mismatches, in particular due to differences in maturity profiles, interest rate arrangements and currency denominations. The cover pool losses include some level of legal risks, system-wide event risk and asset correlation assumptions and are the average of losses resulting from risks across different scenarios.

26 Sector update Q4 2021 report.

27 The Covered Bond Anchor expresses the likelihood that the issuer ceases to service the debt obligations under the covered bonds, and therefore the covered bonds having to rely primarily on the cover pool for payment of interest and principal under the bonds.

28 Our TPI assessment for Pfandbriefe incorporates the update to the Pfandbrief law as decided by the Swiss parliament on 17 December 2021 with its revision of the Banking Act.

29 Surplus OC is OC that exceeds the minimum level consistent with the current rating, and is a measure of the issuer's (or supporting banks') ability to commit further OC to support the programme.

30 Analysis of market data starting in 1997.

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Contacts

Hanna Kefer +49.69.7073.0806
Associate Analyst
hanna.kefer@moodys.com

Edward Manchester +44.20.7772.5407
Senior Vice President
edward.manchester@moodys.com

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Americas	1-212-553-1653
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