

Country: Germany

Industry: Pfandbrief banks

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German Pfandbrief bonds in Swiss francs

- Liquid instrument with benchmark characteristics
- Comparable to Swiss Pfandbrief bonds in terms of credit quality
- Public Pfandbriefe collateralized by public-sector loans

Summary

The German Pfandbrief bond, with its long tradition, comprises one of the largest segments in the worldwide market for fixed-income securities. The market value of German Pfandbriefe outstanding exceeds that of all other classes of European bonds (most notably the German Bund and the French OAT) with the exception of Italian government bonds. Pfandbriefe are collateralized bonds because they are secured by mortgages (in the case of Mortgage Pfandbriefe) or by public-sector loans (in the case of Public Pfandbriefe). In this respect, they fall under the broader category of asset-backed or mortgage-backed securities. Comparable instruments include Switzerland's Pfandbrief bonds issued by the country's two Pfandbrief institutions, the "Pfandbriefzentrale der schweizerischen Kantonalbanken" (a Pfandbrief institution for Swiss cantonal banks) and the "Pfandbriefbank der schweizerischen Hypothekarinstitute" (which serves all of the other Swiss mortgage lenders).

For most of their history, German Pfandbriefe were issued as small domestic bonds. The advent of Jumbo Pfandbriefe¹ in 1995 has made this investment instrument more attractive for international investors. A more recent development is the issuance of Pfandbriefe denominated in foreign currencies. Now that Pfandbriefe have been issued in FRF, USD, GBP, and ITL, we believe the launch of a Swiss franc-denominated German Pfandbrief is imminent.

In terms of credit quality, German Pfandbriefe are in no way inferior to their Swiss counterparts. Both countries attach stringent legal safeguards to Pfandbrief issues. German Pfandbriefe geared to the international investor community are typically designed as Public Pfandbriefe, this in contrast to Swiss Pfandbriefe, which are exclusively backed by mortgages. Since Public Pfandbriefe securitize public sector loans, they are not subject to specific risks associated with the real-estate market.

In the German market, yields on DEM-denominated Pfandbriefe exceed Bund yields by a margin of 15–25 basis points (depending on the maturity and the prevailing market conditions). We have observed spreads of 20–25 basis points for Public Pfandbriefe issued in international currencies (USD, FRF). Since German Public Pfandbriefe are actually an indirect form of German government debt (which is why they are often nicknamed "Baby Bunds"), Swiss investors can expect to see yields in line with those of foreign bonds issued by governments or quasi-governmental organizations (e.g. Österreichische Kontrollbank, Bayerische Landesbank). As a new product in the Swiss bond market, an initial Pfandbrief offering might show slightly better terms.

¹ Jumbo Pfandbriefe are issues of DEM 1 billion or more. To qualify as Jumbo Pfandbriefe, they must also meet requirements with regard to structure (e.g. fixed coupon) and market making.

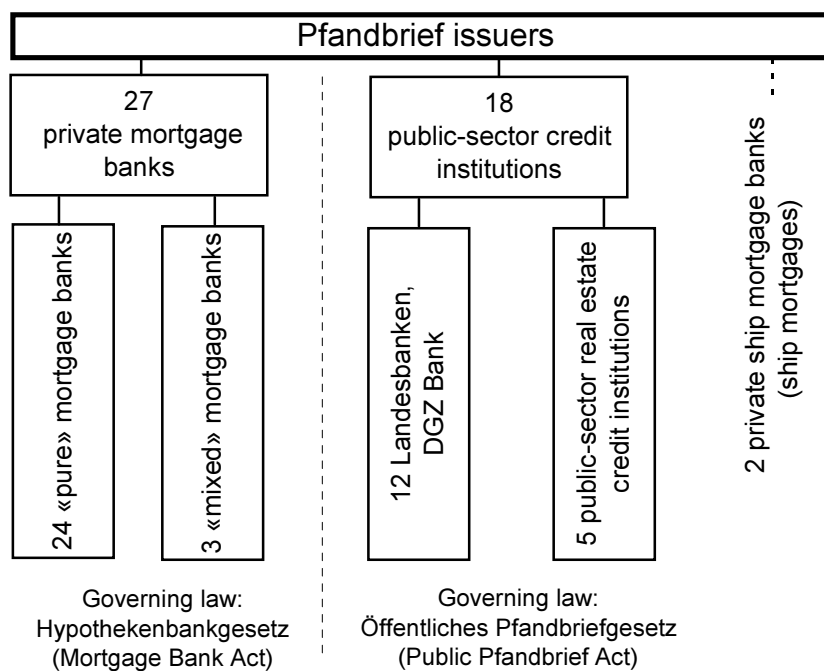
1. Characteristics and significance of the German Pfandbrief bond

A small domestic bond issue is redesigned into a liquid financial instrument

The German Pfandbrief is the fixed-income security with the longest tradition on the German bond market. Throughout most of their 225-year history, Pfandbriefe were placed as small domestic bond issues for safety-minded German investors. The Pfandbrief market definitively caught up with the times in 1995 when the first Jumbo Pfandbrief was issued. Jumbo Pfandbriefe are essentially liquid fixed-coupon bonds with an issue size of at least DEM 1 billion. They tend to trade on tight bid/ask spreads of a few basis points. This traditional “buy and hold” security has thus become a vehicle for active institutional investors.

Mortgage Pfandbriefe vs. Public Pfandbriefe

Pfandbriefe are collateralized obligations, of which there are two basic types in the market. Mortgage Pfandbriefe, issued to fund mortgage banks’ loan portfolios, are secured by first mortgages. Public Pfandbriefe (also known as *Kommunalobligationen*) fund loans to public-sector entities.



Source: Association of German Mortgage Banks, fact book 1997

Issuers: private and public-sector mortgage banks

Approximately 50 German credit institutions are authorized to issue Pfandbriefe (see the illustration above). Private mortgage banks constitute the first group, which can be divided into “pure” and “mixed” mortgage banks. The lending activities of pure mortgage banks are essentially limited to the provision of real estate-secured loans for residential housing and commercial property as well as public-sector loans (i.e. loans to the German federal government, Germany’s Länder (state) and municipal authorities, and to other public-sector institutions). Virtually all of the pure mortgage banks are controlled by Germany’s leading commercial banks. The German Mortgage Bank Act stipulates that mortgage banks can be founded only as pure mortgage banks. However, three private

One of the world's largest investment categories

New issues denominated in foreign currencies

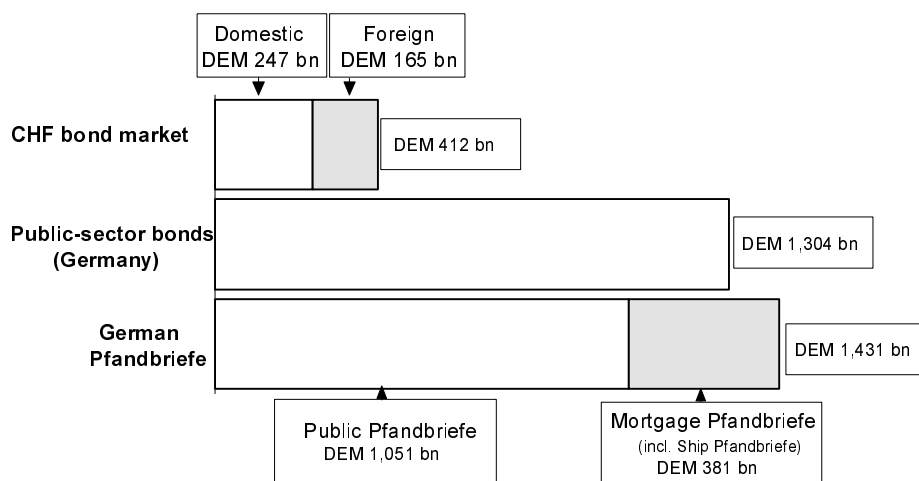
Market size: comparison with the Swiss bond market

mortgage banks² are allowed to operate as mixed banks (they are licensed to engage in universal banking operations beyond the scope of business conducted by pure mortgage banks) since they were founded prior to 1900, the year the Mortgage Bank Act entered into force.

Of the 18 public-sector Pfandbrief institutions in Germany, the 12 Landesbanken and the DGZ Bank (Deutsche Girozentrale -Deutsche Kommunalbank-) have the greatest significance. Unlike the specialized private mortgage banks, these banks engage in universal banking activities.

Many market observers are surprised at the sheer size of the German Pfandbrief market. With a total of DEM 1.6 billion outstanding (at end-1997), Pfandbriefe comprise the largest segment of the German bond market, even exceeding the amount of Bunds outstanding. At the international level, too, there are only a few bond markets (e.g. US Treasuries, US mortgage-backed securities, Italian and Japanese government bonds) with capitalizations surpassing the value of the Pfandbrief market.

In a move to attract greater interest on the part of international investors, foreign currency-denominated German Pfandbriefe were launched for the first time last year. Frankfurter Hypo's pioneer Pfandbrief in French francs hit the market in March 97. In June, Rheinhyp floated a USD 750 million Pfandbrief offering. Since then, Pfandbriefe have also been launched in both Italian lira and British pounds. The issuance of a CHF-denominated Pfandbrief can thus be expected soon. The German Pfandbrief banks' intentions are clear: since the creation of a common currency in Europe will greatly enlarge the bond market, Pfandbrief issuers want to develop a broader international investor base. While this top-rated financial instrument is sure to increase its market penetration in the euro zone, Pfandbrief-type securities, issued in accordance with the legal standards of other European countries, will probably be competing with this traditional German investment product. This will force investors to evaluate credit quality very carefully.



Source: Association of German Mortgage Banks, Swiss stock exchange, data per end-1996

² The three mixed mortgage banks are: Bayerische Hypotheken- und Wechsel-Bank, Bayerische Vereinsbank (these two are about to merge), and Norddeutsche Hypotheken- und Wechselbank AG.

2. Credit aspects

The legal basis for German Pfandbrief issuers is laid out in the Mortgage Bank Act (Hypothekbankengesetz, HBG) of 1900, which applies to private mortgage banks, and the Public Pfandbrief Act (öffentliches Pfandbriefgesetz, ÖPG), which governs Pfandbrief issues by public-sector financial institutions. These laws supplement the general banking regulations regarding capital, liquidity, and supervision that apply to all of Germany's lending institutions. The most significant aspects of the two laws³ are presented in the following paragraphs.

Source: The German Pfandbrief, Facts and Figures 1997, Association of German Mortgage Banks

The “cover principle” and separate collateral pools

By law, Mortgage Pfandbriefe outstanding must at all times be secured by first mortgages of at least equal nominal amount; Public Pfandbriefe must be secured by public-sector loans yielding at least equal interest. The assets must be pooled in two separate cover funds, one for each of the Pfandbrief types. If the assets designated as cover are insufficient, certain high-quality assets specified by law (e.g. cash, Bunds) can be employed as surrogate cover. Individual Pfandbriefe are not backed by specific assets. Rather, the totality of mortgages (or public-sector loans) serve as joint collateral for all Pfandbriefe outstanding. This obviously generates a favorable diversification effect. Pfandbrief collateral pools are dynamic structures to which new loans are continually added and from which repaid loans are constantly withdrawn.

Compliance enforced by banking supervisors and independent trustees

To ensure that the assets belonging to the pools are clearly identified, mortgage banks maintain a cover register (Deckungsregister) in which the assets serving as the Pfandbrief cover must be recorded. The German Federal Banking Supervisory Authority is responsible for regularly checking to ensure that the “cover principle” is complied with and that the registers are properly maintained. In practice, the supervisory authority appoints an independent trustee who continually monitors the integrity of the Pfandbrief collateral. Pfandbriefe may only be issued once the trustee has certified that the legally required cover exists.

Matching interest rates and maturities

Both the maturities and interest rates of loans and the Pfandbriefe issued to fund them must match each other as closely as possible. In order to minimize any residual risks (e.g. currency risks associated with foreign currency-denominated Pfandbriefe), mortgage banks are increasingly turning to asset and liability management tools such as derivatives.

Preferential claim on cover assets in the event of insolvency

No mortgage bank failures have been recorded in Germany since the Mortgage Bank Act took effect in 1900. Should one default, however, Pfandbrief creditors have a preferential claim on the cover assets. Other creditors can lay claim to these assets only after the claims of the Pfandbrief creditors have been satisfied in full. On the other hand, Pfandbrief creditors' claims on an insolvent mortgage bank's free assets outside the designated pools rank on equal footing with those of the bank's general creditors.

³ The only significant difference between the HBG and the ÖPG is that the ÖPG does not impose restrictions on the type of banking activities.

Selected issuers of Jumbo Pfandbriefe

Issuer	Jumbo Pfandbrief # outstanding/amt. issued* (DEM bn)	Current ratings (Moody's / S&P)		
		Public Pfandbriefe	Mortgage Pfandbriefe	Bank deposit rating (long-term)
Allgemeine Hypothekenbank	18 / 29.3	Aa2 / AAA	Aa3 / -	A2 / A
Bayerische Vereinsbank ¹	8 / 10.5	Aaa / AAA	Aaa / -	Aa2 / -
DePfa-Bank	12 / 25.5	Aaa / AAA	Aa1 / AAA	Aa3 / -
Deutsche Hypothekenbank Frankfurt ²	11 / 15.3	- / -	- / -	- / -
Frankfurter Hypo	7 / 11.5	Aaa / AAA	Aaa / AAA ⁴	Aa2 / -
Hypo-Bank ¹	3 / 4.5	Aaa / -	Aaa / -	Aa2 / A+
Hypothekenbank in Essen	15 / 24.5	Aaa ³ / AAA	Aa1 ³ / -	Aa3 ³ / AA-
Lübecker Hypothekenbank	11 / 15.3	- / AAA	- / AAA ⁴	- / -
Münchner Hypothekenbank	1 / 1.5	Aaa / -	Aa1 / -	Aa3 / -
Rheinhyp	10 / 17.5	Aaa / -	Aaa / -	Aa2 / -
Westfälische Hypothekenbank	6 / 8.5	- / AAA	- / -	- / A+

¹ Bayerische Vereinsbank and Bayerische Hypotheken- und Wechsel-Bank (Hypo-Bank) will merge by the end of the year.

² Dresdner Bank plans to merge its three mortgage banks in 1998. The three banks are: *Deutsche Hypothekenbank Frankfurt*, *Norddeutsche Hypotheken- und Wechselbank*, and *Hypothekenbank in Hamburg* (HamburgHyp).

³ Moody's has placed its ratings for *Hypothekenbank in Essen* on review for a possible downgrade. Reason: Moody's is reviewing its rating for Commerzbank (Aa2), which holds a 51% stake in *Hypothekenbank in Essen*.

⁴ The S&P ratings for Mortgage Pfandbriefe issued by *Frankfurter Hypo* and *Lübecker Hypothekenbank* are currently on the watch list for a possible downgrade. Reason: S&P is reviewing its rating for Deutsche Bank (AAA), the majority shareholder (>90%)

* Amount issued as of 12 November 1997

Source: Moody's, S&P, Pfandbrief statistics from "The German Pfandbrief" (FT, 4 December 1997)

Most Public Pfandbriefe carry triple-A ratings

Where official ratings have been assigned, all issuers of public Jumbo Pfandbriefe carry a triple-A rating from at least one of the major rating agencies. The single exception is Moody's "unsolicited" Aa2 rating for Public Pfandbriefe issued by Allgemeine Hypothekenbank (AHB).

Ratings for Mortgage Pfandbriefe are often lower

Rating agencies are more critical in their assessment of Mortgage Pfandbriefe, in that they scrutinize both the quality of the issuer's loan portfolio and the issuer's ownership structure (commercial banks as majority shareholders). Still, there are a great number of triple-A-rated Mortgage Pfandbriefe.

3. Comparable investment instruments in the capital market

Pfandbriefe compared to asset- and mortgage-backed securities

Pfandbriefe are not simply mortgage securities

Since German Pfandbriefe are secured by specific assets, they fit into the larger investment class of asset-backed (ABS) and mortgage-backed (MBS) securities. However, it would be inaccurate to call Pfandbriefe simply “mortgage securities.” Almost three-quarters of all Pfandbriefe issued are Public Pfandbriefe and thus much more akin to collateralized loan obligations. ABS and MBS exist in an almost infinite variety of forms and structures. The table below lists the key differences between Pfandbriefe and ABS/MBS (particularly the Anglo-American variety).

	German Pfandbriefe	Asset- and mortgage-backed securities
Off-balance sheet vs. on-balance sheet financing	Cover assets remain on the Pfandbrief issuer's balance sheet, although they are maintained in distinct asset pools. (on-balance sheet financing)	Assets covering ABS/MBS are usually removed from the issuer's balance sheet and placed in a special-purpose vehicle. (off-balance sheet financing)
No specific assignment of assets	Pfandbrief investors have no direct or specific claim on individual assets in the cover funds. All Pfandbrief investors rank pari passu among themselves, i.e. have equal claims on the cover asset pool.	Specific asset pools are designated for each ABS/MBS offering (with the exception of, for example, credit card asset-backed securities issued in “Master Trust” format, under which a single asset pool covers more than one bond issue).
ABS/MBS offer no recourse	If the Pfandbrief investor's claim is not fully met, he can seek compensation from the issuer's assets outside the asset pool. In such cases, the Pfandbrief investor's claim ranks equally with those of the issuer's other creditors.	Should an issuer have insufficient proceeds to fully satisfy the claims of ABS/MBS investors, said investors have no recourse for compensation beyond the collateral (including credit enhancements) designated for such offerings.
Characteristics of the collateral pools	The composition of the cover funds changes over time as new collateral is added to the asset pool and other collateral is removed.	The composition of the covering fund is usually finalized prior to the offering and remains unchanged throughout the life of the ABS/MBS. There are, however, many exceptions (e.g. credit card ABS with master trust structures).
Credit enhancements	Additional credit enhancements such as letters of credit or escrow accounts are not provided.	Additional credit enhancements usually exist for the benefit of ABS/MBS investors.
In contrast to pass-through structures, no prepayment risk	Mortgage Pfandbriefe are generally issued as bullet bonds with a definite (i.e. fixed or floating) coupon attached to it. No principal is redeemed before the final maturity date.	With mortgage pass-through certificates (e.g. Ginnie Mae, Fannie Mae, which constitute a very large asset class in the USA), both mortgage interest payments and principal redemptions are periodically passed on to MBS investors. They thus face uncertainty regarding future cash flows, also called prepayment risks.

Comparison with Swiss Pfandbriefe

Whether “Pfandbriefanleihen” in Switzerland, “Obligations Foncières” in France, or “Realkreditobligationer” in Denmark, Europe offers a wide range of financial instruments similar to the German Pfandbrief. For this reason, we have adjoined on page 10 a table in which the characteristics of these European “Pfandbriefe” are compiled. The following paragraphs focus on the features shared by German and Swiss Pfandbriefe. For additional information on Swiss Pfandbriefe, please refer to our August 1997 publication entitled “Swiss Pfandbrief Institutions.”

Swiss Pfandbrief institutions are practically pure pass-through vehicles...

Historically, both Swiss and German Pfandbriefe originated from the need to create safe securities with which to refinance mortgage loans. The Swiss Federal Pfandbrief Act of 1930 (Schweizer Pfandbriefgesetz) is younger than its German counterpart. Under this law, only two institutions are authorized to issue Pfandbrief securities in Switzerland: one Pfandbrief institution for cantonal banks (Pfandbriefzentrale schweizerischer Kantonalbanken) and one for all of the other Swiss mortgage lenders (Pfandbriefbank schweizerischer Hypothekar-institute). This is already one key difference between the systems in Switzerland and Germany, where, in principle, new Pfandbrief institutions can be founded at any time. Although it is not expressly prohibited by law, Swiss Pfandbrief institutions generally do not engage in direct mortgage lending. Instead, they fund loans to their member banks (which are required to provide collateral in the form of high-quality mortgages) by issuing Pfandbriefe.

...without direct lending businesses

Comparable safety features

In Switzerland, as in Germany, collateral provided by member banks for their loans are recorded in a “Pfandregister” (mortgage register). Due diligence procedures of accepting cover assets is conducted by the Swiss Pfandbrief institutions themselves. Since German Pfandbrief issuers also engage in direct mortgage lending, potential conflicts of interest could arise in the process of including assets into collateral pools. This is why Germany appoints independent trustees to monitor and certify the issuers’ cover registers.

The two countries also have comparable regulations that fix maximum loan-to-mortgageable-value ratios for mortgage loans used to securitize Pfandbriefe. Switzerland sets the limit at 66.7% while Germany’s maximum is 60%. German mortgage banks can issue an additional 20% in the form of subordinated loans which may, however, not be used as collateral in the Pfandbrief covering fund. In reality, Pfandbrief institutions in Switzerland and Germany actually adhere to a significantly lower loan-to-mortgageable-value ratio of 50%–55%. In our view, one of the Swiss Pfandbrief institutions’ strengths is its comparably lower proportion of commercial real estate loans in the Pfandbrief collateral. In Germany, commercial property financing accounts for an average of approximately one-third of all Mortgage Pfandbriefe cover funds. On the whole, the safety net spun around both the German and Swiss Pfandbrief systems can be classified as solid.

Only Mortgage Pfandbriefe in Switzerland

Unlike German Pfandbriefe, Swiss Pfandbriefe are not used as a vehicle for funding loans to the public sector. In the Swiss capital market, smaller communities often raise funds via the Emissionszentrale der Schweizer Gemeinden, a common issuing vehicle of the Swiss municipalities. Cantons, larger cities, and public-sector entities often directly place bonds in the market.

4. Structure and relative value of CHF-denominated German Pfandbriefe

Terms and conditions of German Pfandbriefe

No gross-up tax clause

Unlike conventional foreign Swiss bonds, the terms and conditions governing Swiss franc German Pfandbriefe will not contain a tax gross-up clause. Such a clause would oblige a bond issuer to continue to remit the full coupon to the investor even if a withholding tax in his country of domicile were imposed. This means he would have to “gross up” the coupon by assuming the tax at his own expense. In return, the tax clause would typically allow him to call the bond (usually within 60 days) under such a scenario.

No relevant weakening of the bondholder’s interests

In our view, the absence of a gross-up clause does not lead to a relevant weakening of the bondholder’s interests. As mentioned in the previous chapter, Pfandbriefe belong to the broader class of asset- and mortgage-backed securities. Hence, in contrast to corporate bonds, there is no “company” behind these securities that could cover this kind of supplemental tax. For this very reason, the 3¾% Citibank Credit Card Master Trust I Credit Card ABS issued last year contained no gross-up clause – a withholding tax would simply have triggered an early amortization of the issue. The form and structure of German Pfandbriefe are regulated by law. Therefore, they are strictly issued without such tax clauses. This rule also applies to foreign currency-denominated Pfandbriefe which would otherwise receive preferential treatment over their DEM counterparts.

Full refund under dual taxation treaty

In our opinion, the odds of Germany imposing a withholding tax on foreigners are extremely slim. If levied at all, we believe such a tax would be introduced at the most as a coordinated EU tax. In any case, the zero-tariff provision in the current dual taxation treaty between Switzerland and Germany applies to both private and institutional Swiss taxpayers, meaning that they could file for a full refund should Germany levy a withholding tax.

Yield spreads

For investor reference purposes, the table below displays spreads for selected DEM- and foreign currency-denominated Pfandbriefe against swaps and the corresponding government benchmark.

Instrument	Spread vs. benchmark**	Benchmark
DEM 5-year Pfandbrief (generic bid*)	17 bp	5-year Bund
DEM 10-year Pfandbrief (generic bid*)	26 bp	10-year Bund
FFR 2 bn 6% Frankfurter Hypo 97-21.4.2009 (bid)	18 bp	OAT
USD 1 bn 5 5/8% Hypo'bk in Essen 98-15.1.2003 (bid)	25 bp	US Treasury
GBP 250 m Frankfurter Hypo 6 3/8% 98- 4.2.2008 (bid) ***	34 bp	UK government

* generic: average 5/10-year DEM Pfandbriefe (bid price)

** Spreads: average 1.1. - 23.3.1998

*** Mortgage Pfandbrief

Source: Bloomberg

Swiss Pfandbrief system compared to mortgage bonds/Pfandbriefe in other European countries

	Switzerland	Germany	France	Denmark
Name of debt instrument:	Schweizer Pfandbriefe	Pfandbriefe	obligation foncières obligations communales	Realkreditobligationer
Amount issued:	CHF 29 bn	CHF 758 bn	CHF 62 bn	CHF 248 bn
Type of debt instruments:	Pfandbriefanleihen	Mortgage Pfandbriefe Public Pfandbriefe	obligations foncières obligations communales obligation pour prêts à la navigation	Realkreditobligationer
Credit ratings:	No official ratings	Rated instruments partially carry official ratings; Public Jumbo-Pfandbriefe are typically rated triple-A by either Moody's or S&P.	Senior debt, i.e. mortgage bonds are currently rated A3/A. In the wake of the government rescue action (see below), they are watchlisted for a possible upgrade.	Rated instruments typically carry double-A ratings (Moody's). If issuer is owned by commercial bank, rating of mortgage bonds is one notch above bank rating.
Issuing entities:	2 specialized Pfandbrief institutions: Pfandbriefzentrale for cantonal banks, Pfandbriefbank for all other Swiss banks.	27 mortgage banks, of which 24 "pure" mortgage banks and 3 "mixed" mortgage banks (see Chapter 1 of this report for further details) 18 public sector credit institutions	Crédit Foncier de France (CFF): a specialized financial institution.	9 mortgage credit institutions: 6 with capital centers and 3 without capital centers (for description of capital centers, see below).
Legal framework:	Swiss Pfandbrief Act (Pfandbriefgesetz)	German Mortgage Banking Act (for private mortgage banks); Public Pfandbrief Act (public sector institutions)	Specialized financial institution under the terms of the French banking law of 1983.	Danish Mortgage Credit Act
Ownership structure:	Pfandbriefzentrale owned by cantonal banks; Pfandbriefbank's shares are held by approx. 200 private-sector Swiss banks.	Pfandbrief business conducted by private banks and public-sector banking institutions (e.g. Länderbanken). Most private banks are owned by larger commercial banks.	Formerly privately owned with management appointed by government; taken over by state authorities in Dec. 1996 after losses in property lending had wiped out its shareholders' equity.	The leading mortgage credit institutions are controlled by commercial banks.
Permitted business activities:	No banking activities other than issuing Pfandbrief bonds and mortgage-backed lending to Swiss banks.	Public-sector lending within EU; residential and commercial mortgage lending within EU. No trading or general banking activities permitted for private mortgage banks	Activities restricted to original mission, i.e. mortgage lending, lending to local government and national authorities. No retail deposit under 2 yrs. Commercial real estate through subsidiaries.	Residential and commercial real-estate lending. Public-sector lending is permitted but insignificant.
Maximum bank lending levels (loan-to-value threshold):	Not applicable since Pfandbrief banks are pure funding vehicles and do not engage in direct bank lending.	For "pure" mortgage banks: (i) unlimited for public-sector lending (ii) additional lending of an aggregate 20% of mortgage loans over 60% LTV ¹⁾ portfolio. No lending restrictions for "mixed" mortgage banks.	(i) unlimited for public-sector lending (ii) maximum mortgage lending is 60% LTV ¹⁾ unless higher LTV is simultaneously guaranteed by state or local authorities.	Residential mortgages can be 80% LTV ¹⁾ (while social housing can be 80%–93% LTV); industrial and commercial loans are up to 60% LTV.

Source: Regulations governing Swiss Pfandbrief Banks; non-Swiss data adapted from Moody's Investor Service, Special Comment on German Pfandbriefe of June 1996

Swiss Pfandbrief system compared to mortgage bonds/Pfandbriefe in other European countries (continued from previous page)

	Switzerland	Germany	France	Denmark
Specific allocation of assets to separate asset pools:	Yes; assets of the 2 Pfandbrief institutions effectively form a separate asset pool. Due to the limited scope of their activity, they possess virtually no other assets.	Yes; assets forming the collateral for Pfandbrief issues are booked as a separate asset class in the balance sheet (recorded in cover register)	No	Mortgage loans would be earmarked in specific groupings known as "capital centers"; no specific allocation for banks w/o capital centers.
Qualifying threshold for inclusion in collateral:	66.7% LTV ¹⁾ for mortgage loans.	60% LTV ¹⁾ for mortgage loans.	None	None
Allocation / approval to asset pool by:	The Pfandbrief institutions themselves.	An independent trustee.	Not applicable, since there is no separate allocation to an asset pool.	The mortgage institution itself (only applicable for banks with capital centers).
Who holds and administers collateral?	Member banks physically keep collateral and mortgagees are not notified. Mortgages are pledged by recording them in a "Pfandbrief registry" ("Registerpfandrecht").	Mortgages held and administered by mortgage banks.	Mortgages held and administered by CFF.	Mortgages held and administered by mortgage banks.
Supervision of issuer and specific debt instrument:	Eidgenössische Bankenkommission (Swiss banking authorities) and independent auditors.	Bundesaufsichtsamt für das Kreditwesen and an independent trustee for Pfandbriefe/asset pools.	Commission bancaire; no additional/separate monitoring of debt instruments.	Finanstilsynet (the Danish Supervisory Authority).
Franchise vulnerability due to change(s) in legislation:	Low. Franchise generally more at threat from market forces, as there are alternative, potentially more economical refinancing strategies available to some of the bigger member banks.	Low for private mortgage banks. Franchise generally more at threat from market forces.	As illustrated by the loss of its monopoly for the distribution of subsidized mortgages (which lead to the major crisis 1996), changes in the legislation had a profound impact on CFF.	Low. Franchise generally more at threat from market forces.
Protection against mismatching:	Terms of Pfandbrief securities (amount, maturity) are identical to terms of loans to member banks. Pfandbriefgesetz prescribes Gleichgewichtsprinzip (balance principle) and Deckungsprinzip (cover principle).	Interest and maturity matching required under the Mortgage Banking Act. This applies to the Pfandbriefe and the respective asset pools. The mortgage banks themselves are not restricted in retaining "open" interest rate positions.	None	Yes; measures known as "balance principle."
Are these debt instruments bankruptcy-remote?	Yes; as kind of special purpose vehicles, Swiss Pfandbrief banks would not directly be affected by the bankruptcy of a member bank.	No; bankruptcy of issuing entity would likely affect payment stream even if due to their preferential claims investors might not suffer any losses in the end.	No	No; bankruptcy of issuing entity would affect payment stream even if investors might not suffer any losses in the end.

1) LTV: Loan-to-mortgageable-value

Source: Regulations governing Swiss Pfandbrief Banks; non-Swiss data adapted from Moody's Investor Service, Special Comment on German Pfandbriefe of June 1996

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