

## Pfandbriefbank Pool

30 June 2019, semi-annual publication (since June 2012), unaudited

### 1 Pfandbriefbank

#### 1.1 Contact address

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#### 1.2 Rating

Rating agency Moody's Investors Service Ltd, London  
Issuance rating Aaa (since 2002, last issuer rating report dated 19 July 2018, ratings per ISIN are published shortly after issuance)

#### 1.3 Business model

Pfandbriefbank

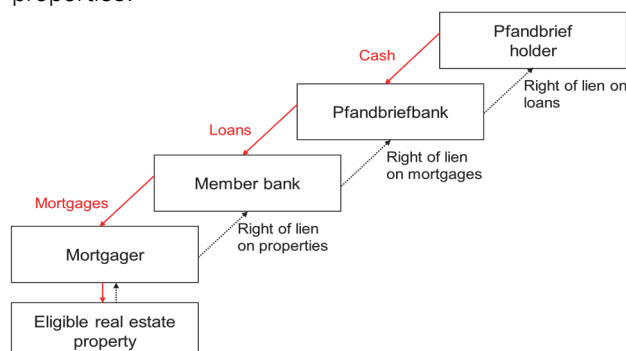
- Founded 1930, incorporated 1931
- Based on Pfandbrief act, which came into effect in 1930
- Special institute with limited scope (issuance of Swiss Pfandbriefe, loans to member banks and investment of own funds)
- No currency risk, no maturity mismatch, no interest rate risk
- Swiss Federal Council authorises bylaws and valuation regulations and nominates one member of the board of directors
- Swiss Financial Market Supervisory Authority (FINMA) supervises Pfandbriefbank and its member banks

Cover pool

- Regulated by law (not only a private agreement)
- Only first-class mortgages in Swiss francs (CHF) on properties located in Switzerland are eligible
- Cover value of each member bank's cover pool must be at least 108 % of the bank's liabilities to Pfandbriefbank
- Loan to value 41 % (by law limited at max. 66 2/3 % for residential properties or lower for other property types)
- More than 99 % of the underlying properties are residential
- Pfandbriefbank supervises eligibility and overcollateralisation daily
- Member bank legally obliged to increase coverage in case of insufficient overcollateralisation and to replace impaired or non-performing loans
- Approximately 13 % of Swiss mortgages refinanced through Swiss Pfandbriefe
- Pfandbriefbank values the cover value of a mortgage independently
- Mortgages stay on balance sheet of member bank
- Unique historical track: No loss since 1931

Investors' fourfold security

1. The capital of Pfandbriefbank, 2. the capital of the member banks, 3. the capital of the proprietors of the real estate property and 4. the market value of the real estate properties.



#### 1.4 Planned events

Issuances 12/08, 13/09, 09/10, 04/11, 02/12, 16/12/2019 and 07/01/2020  
General meeting 28/05/2020

## 2 Swiss Economics

### 2.1 General

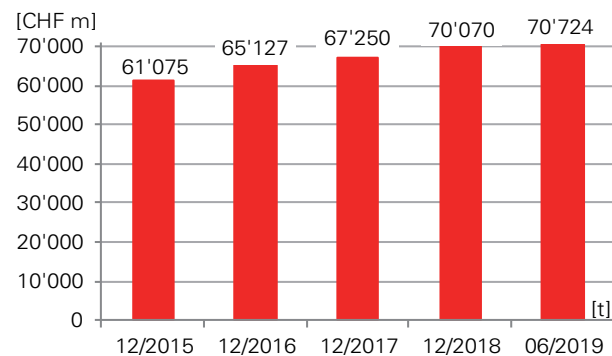
	Source, units	12/2018	12/2017	12/2016	12/2015
Gross domestic product (GDP)	SNB, CHF bn	690	669	660	654
Unemployment rate	Seco, Ø %	2.6	3.2	3.3	3.2
Eidgenossen (Gov), 10Y rate	SNB, %	-0.15	-0.10	-0.14	-0.04

### 2.2 Mortgage market

Mortgage volume of banks	SNB, CHF bn	1'022	988	962	938
Swiss Pfandbriefe <sup>1</sup>	CHF bn	125	119	113	104
SWX IAZI Price Indices					
Private Real Estate	CH0030532342	184	182	178	173
Investment Real Estate	CH0030532391	183	178	168	168

## 3 Market

### 3.1 Pfandbriefbank - Outstanding Pfandbriefe

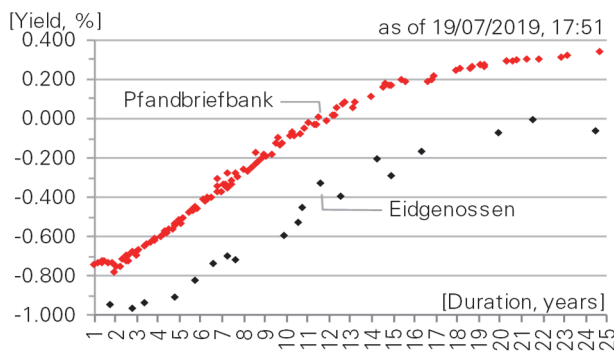


Source: Pfandbriefbank, semi-annual reports

In 2018 Pfandbriefbank issued Swiss Pfandbriefe of CHF 8'021 m. CHF 5'201 m matured. Net growth amounts to CHF 2'820 m.

The three joint lead banks responsible for our primary market issuances are Credit Suisse AG (in charge), UBS AG and Raiffeisen Schweiz Genossenschaft.

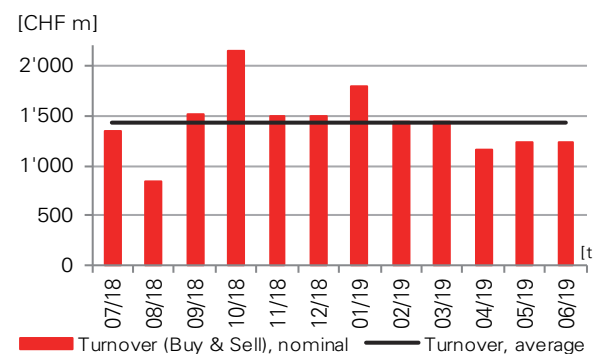
### 3.2 Pfandbriefbank - Yield per ISIN



Source: SIX Swiss Exchange AG

Pfandbriefbank's yield curve has a high density and supports portfolio duration adjustments in primary or secondary market.

### 3.3 Pfandbriefbank - Traded nominal volumes on secondary market



Source: SIX Swiss Exchange AG

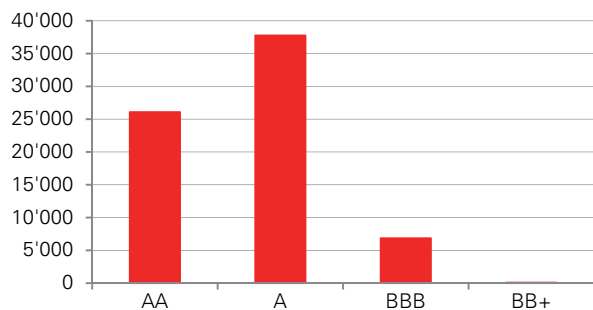
The joint lead banks are requested to organise the market making in the secondary market at SIX Swiss Exchange AG. For the last 12 months average monthly nominal turnover exceeded CHF 1'400 m (min/median/max: CHF 842 m/CHF 1'439 m/CHF 2'151 m).

## 4 Maturity structure

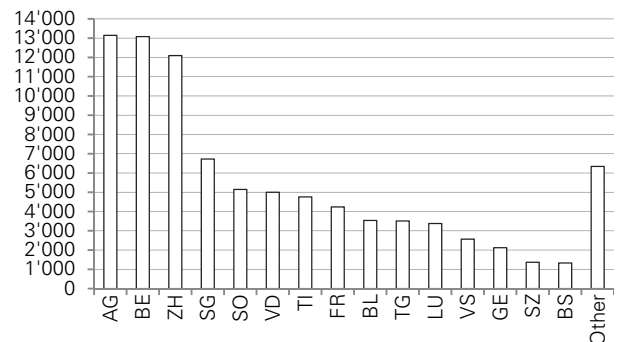
Contractual Cashflows		Maturity Buckets (in years)					
		Total	≤ 1y	> 1y and ≤ 5y	> 5y and ≤ 10y	> 10y and ≤ 15y	> 15y
30/06/2019							
CHF m (A/L denominated in CHF)							
Assets (stylised)		72'766					
thereof	Loans to member banks	70'724	4'923	22'780	22'010	9'967	11'044
	Bonds	1'281	59	346	628	248	0
	- thereof SNB GC Basket	1'281					
	- thereof pledged	22					
	Share capital not paid in	504	504				
Liabilities (stylised)		-72'766					
thereof	Swiss Pfandbriefe	-70'724	-4'923	-22'780	-22'010	-9'967	-11'044
	Equity	-1'633					
Net total			563	346	628	248	0

## 5 Pool - Summary

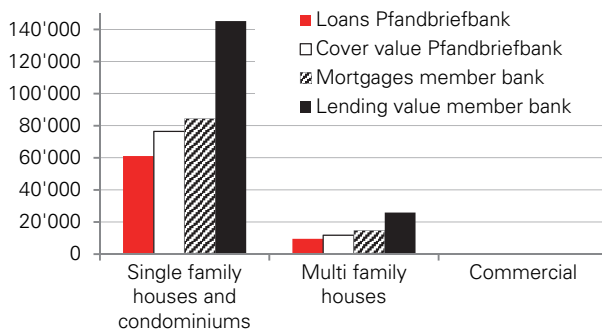
### 5.1 Loans to member banks (CHF m)



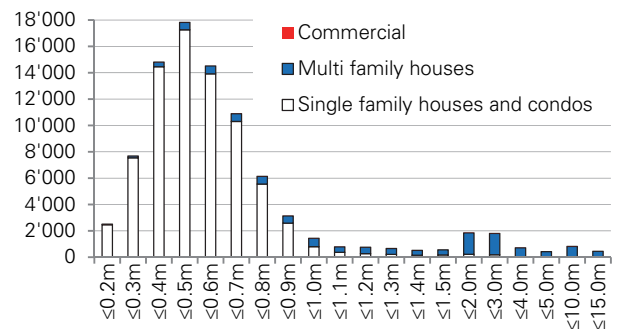
### 5.2 Cover value by region (CHF m, only CH eligible)



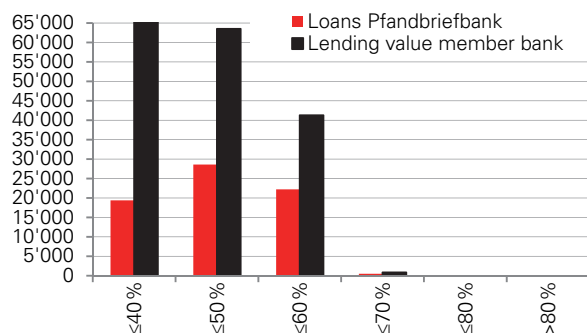
### 5.3 Property type (CHF m)



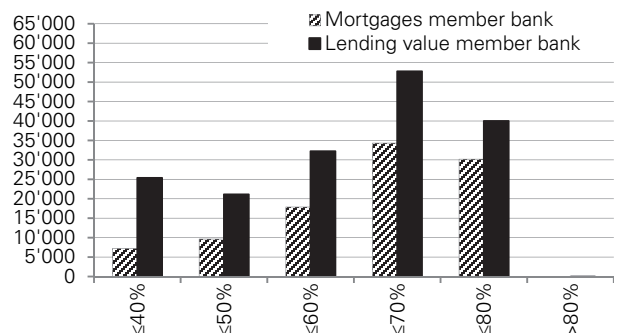
### 5.4 Cover value by size (CHF m)



### 5.5 Loan LTV (CHF m) <sup>2</sup>



### 5.6 Mortgage LTV member bank (CHF m) <sup>3</sup>



## 6 Pool - Details

Criteria for eligible cover pool assets	Pfandbriefbank				Member bank				Cover objects	
	Loans <sup>4</sup>		Cover value <sup>5</sup>		Mortgages <sup>6</sup>		Lending value <sup>7</sup>		Number	%
	CHF m	%	CHF m	%	CHF m	%	CHF m	%		

### 6.1 Loans to member banks <sup>8</sup>

Rating <sup>9</sup>	CHF m	%	CHF m	%	CHF m	%	CHF m	%	Number	%
AA	26'067	37	32'825	37	37'353	38	62'764	37	63'699	34
A	37'749	53	46'385	53	51'364	52	89'943	52	105'847	56
BBB	6'840	10	9'036	10	10'397	10	18'544	11	17'652	9
BB+ <sup>10</sup>	68	0	93	0	104	0	170	0	265	0
Total <sup>11</sup>	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100

Loan size total	CHF m	CHF m	%	CHF m	%	CHF m	%	CHF m	%	Number	%
253 bank(s) ≤ 200	19'949	28	25'591	29	28'848	29	48'888	29	51'597	28	
24 ≤ 400	6'121	9	7'649	9	8'674	9	14'968	9	16'137	9	
7 ≤ 600	3'359	5	4'564	5	5'279	5	8'910	5	8'749	5	
2 ≤ 800	1'416	2	1'707	2	2'108	2	3'719	2	2'726	1	
1 ≤ 1'000	842	1	1'072	1	1'138	1	2'258	1	2'371	1	
9 > 1'000	39'038	55	47'756	54	53'170	54	92'677	54	105'883	56	
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100	

### 6.2 Region (only Switzerland eligible)

BE	10'760	15	13'080	15	14'747	15	25'072	15	30'512	16
AG	10'742	15	13'144	15	14'378	14	24'579	14	30'466	16
ZH	9'286	13	12'093	14	13'648	14	25'351	15	21'608	12
SG	5'361	8	6'725	8	7'545	8	12'819	7	14'301	8
SO	4'247	6	5'149	6	5'821	6	9'417	5	11'671	6
VD	3'997	6	5'000	6	5'654	6	9'845	6	9'668	5
TI	3'481	5	4'757	5	5'415	5	9'449	6	9'935	5
FR	3'459	5	4'239	5	4'707	5	7'649	4	9'549	5
BL	2'809	4	3'538	4	3'932	4	6'964	4	7'012	4
TG	2'806	4	3'510	4	3'921	4	6'485	4	7'259	4
LU	2'770	4	3'377	4	3'775	4	6'352	4	6'825	4
VS	2'084	3	2'566	3	2'902	3	4'974	3	6'738	4
GE	1'673	2	2'123	2	2'515	3	4'746	3	3'322	2
SZ	1'102	2	1'366	2	1'538	2	2'834	2	2'383	1
BS	1'052	1	1'330	2	1'535	2	2'800	2	2'124	1
Other cantons, each < 1.4 %	5'094	7	6'341	7	7'183	7	12'085	7	14'090	8
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100

### 6.3 Property type <sup>12, 13, 14</sup>

Overview	CHF m	%	CHF m	%	CHF m	%	CHF m	%	Number	%
Residential										
Single family houses and condominiums <sup>15</sup>	61'113	86	76'451	87	84'321	85	145'170	85	176'486	94
Multi family houses	9'517	13	11'780	13	14'715	15	25'897	15	10'853	6
Total residential	70'630	100	88'231	100	99'036	100	171'067	100	187'339	100
Commercial	94	0	108	0	181	0	354	0	124	0
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100

Criteria for eligible cover pool assets	Pfandbriefbank		Member bank				Cover objects	
	Cover value <sup>5</sup>		Mortgages <sup>6</sup>		Lending value <sup>7</sup>		Number	%
	CHF m	%	CHF m	%	CHF m	%		

#### 6.4 Property type by size <sup>12, 13, 14</sup>

<b>Residential: Single family houses and condominiums</b>									
Cover value Pfandbriefbank	≤ 200'000	2'463	3	2'618	3	8'839	5	15'863	8
	≤ 300'000	7'544	9	7'949	8	16'521	10	28'560	15
	≤ 400'000	14'455	16	15'505	16	27'205	16	40'407	22
	≤ 500'000	17'257	20	18'731	19	30'562	18	38'059	20
	≤ 600'000	13'916	16	15'198	15	23'893	14	25'287	13
	≤ 700'000	10'304	12	11'528	12	17'749	10	15'803	8
	≤ 800'000	5'549	6	6'523	7	10'086	6	7'443	4
	≤ 900'000	2'585	3	3'137	3	4'870	3	3'049	2
	≤ 1'000'000	798	1	1'010	1	1'744	1	833	0
	≤ 1'100'000	370	0	478	0	777	0	351	0
	≤ 1'200'000	270	0	350	0	575	0	234	0
	≤ 1'300'000	213	0	269	0	460	0	170	0
	≤ 1'400'000	151	0	190	0	323	0	111	0
	≤ 1'500'000	169	0	232	0	411	0	114	0
	≤ 2'000'000	222	0	274	0	491	0	126	0
	≤ 2'500'000	185	0	330	0	663	0	76	0
	≤ 3'000'000	0	0	0	0	0	0	0	0
Total		76'451	87	84'321	85	145'170	85	176'486	94
Average as per cover object		0.433		0.478		0.823			
<b>Residential: Multi family houses</b>									
Cover value Pfandbriefbank	≤ 1'000'000	4'047	5	4'926	5	9'574	6	7'088	4
	≤ 2'000'000	3'720	4	4'556	5	7'687	4	2'645	1
	≤ 3'000'000	1'616	2	2'014	2	3'280	2	664	0
	≤ 4'000'000	712	1	915	1	1'479	1	206	0
	≤ 5'000'000	422	0	557	1	907	1	95	0
	≤ 10'000'000	816	1	1'062	1	1'787	1	120	0
	≤ 15'000'000	448	1	685	1	1'182	1	35	0
	≤ 20'000'000	0	0	0	0	0	0	0	0
	≤ 25'000'000	0	0	0	0	0	0	0	0
Total		11'780	13	14'715	15	25'897	15	10'853	6
Average as per cover object		1.085		1.356		2.386			
<b>Commercial</b>									
Cover value Pfandbriefbank	≤ 1'000'000	49	0	79	0	165	0	93	0
	≤ 2'000'000	33	0	52	0	104	0	24	0
	≤ 3'000'000	11	0	17	0	34	0	4	0
	≤ 4'000'000	6	0	12	0	21	0	2	0
	≤ 5'000'000	0	0	0	0	0	0	0	0
	≤ 10'000'000	10	0	21	0	31	0	1	0
	≤ 15'000'000	0	0	0	0	0	0	0	0
	≤ 20'000'000	0	0	0	0	0	0	0	0
	≤ 25'000'000	0	0	0	0	0	0	0	0
Total		108	0	181	0	354	0	124	0
Average as per cover object		0.875		1.461		2.855			
Total		88'339	100	99'217	100	171'421	100	187'463	100

Criteria for eligible cover pool assets	Pfandbriefbank				Member bank				Cover objects	
	Loans <sup>4</sup>		Cover value <sup>5</sup>		Mortgages <sup>6</sup>		Lending value <sup>7</sup>		Number	%
	CHF m	%	CHF m	%	CHF m	%	CHF m	%		

### 6.5 Loan to lending value (loan LTV)<sup>2</sup>

> 0 % to ≤ 40 %	19'393	27	25'559	29	29'737	30	65'833	38	59'345	32
> 40 % to ≤ 50 %	28'609	40	35'664	40	40'176	40	63'493	37	68'839	37
> 50 % to ≤ 60 %	22'216	31	26'557	30	28'692	29	41'256	24	58'009	31
> 60 % to ≤ 70 %	506	1	559	1	612	1	839	0	1'270	1
> 70 % to ≤ 80 %	0	0	0	0	0	0	0	0	0	0
> 80 %	0	0	0	0	0	0	0	0	0	0
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100
Overcollateralisation		100		125		140		242		
LTV <sup>16</sup>		41		52		58		100		

### 6.6 Cover value to lending value (cover value LTV)<sup>17</sup>

> 0 % to ≤ 40 %	6'896	10	8'704	10	10'157	10	30'350	18	27'053	14
> 40 % to ≤ 50 %	13'776	19	17'358	20	20'557	21	37'436	22	32'476	17
> 50 % to ≤ 60 %	23'855	34	29'763	34	33'487	34	53'392	31	56'351	30
> 60 % to ≤ 70 %	26'196	37	32'514	37	35'016	35	50'242	29	71'583	38
> 70 % to ≤ 80 %	0	0	0	0	0	0	0	0	0	0
> 80 %	0	0	0	0	0	0	0	0	0	0
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100

### 6.7 Mortgage to lending value (mortgage LTV member bank)<sup>3</sup>

> 0 % to ≤ 40 %	5'662	8	7'132	8	7'207	7	25'352	15	24'607	13
> 40 % to ≤ 50 %	7'499	11	9'414	11	9'634	10	21'115	12	22'241	12
> 50 % to ≤ 60 %	13'611	19	17'034	19	17'877	18	32'198	19	35'260	19
> 60 % to ≤ 70 %	24'743	35	30'858	35	34'311	35	52'754	31	59'680	32
> 70 % to ≤ 80 %	19'206	27	23'897	27	30'176	30	39'987	23	45'660	24
> 80 % <sup>18</sup>	4	0	5	0	12	0	14	0	15	0
Total	70'724	100	88'339	100	99'217	100	171'421	100	187'463	100

### 6.8 Energy efficiency

Certified as energy efficient (e.g. Minergie)	1'354	2	1'579	2	2'599	2	2'290	1
Not certified as energy efficient	8'418	10	9'855	10	17'421	10	15'137	8
No data provided	78'567	89	87'783	88	151'401	88	170'036	91
Total	88'339	100	99'217	100	171'421	100	187'463	100

- <sup>1</sup> Including private placements as per annual reports of Pfandbrief institutes
- <sup>2</sup> Ratio: Loan Pfandbriefbank divided by lending value member bank
- <sup>3</sup> Ratio: Mortgage member bank divided by lending value member bank
- <sup>4</sup> Loans from Pfandbriefbank to member banks at nominal value
- <sup>5</sup> Eligibility and value of cover objects determined by Pfandbriefbank independently from member bank based on Pfandbrief act and valuation regulations.
- <sup>6</sup> Mortgage nominal value in the balance sheet of member bank
- <sup>7</sup> Lending value of cover objects set up by member bank to determine maximum mortgage
- <sup>8</sup> There are 296 banks with outstanding loans from Pfandbriefbank.
- <sup>9</sup> Rating by 1. Moody's, 2. S&P, 3. Fitch, 4. independent third party bank rating. According to Moody's bank rating methodology dated 16 March 2015 the Moody's bank deposit rating is selected before Moody's senior unsecured rating, where available.
- <sup>10</sup> BB+ rated member banks must have 120 % collateralisation. Their average outstanding loan amounts to CHF 68 m. Member banks with rating better than BB+ must have 108 % collateralisation.
- <sup>11</sup> Loans of CHF 70'724 m are covered by the cover value determined by Pfandbriefbank of CHF 88'339 m for eligible mortgages of CHF 99'217 m with a lending value set up by member banks of CHF 171'421 m (187'463 objects).
- <sup>12</sup> The maximum cover value Pfandbriefbank for single family houses is CHF 2.5 m, for condominiums CHF 1.5 m, for multi family houses and commercial properties CHF 15 m.
- <sup>13</sup> Single family houses and condominiums larger than CHF 1.5 m, multi family houses larger than CHF 3 m and commercial properties larger than CHF 1.2 m are reviewed by the cover pool committee.
- <sup>14</sup> Selected single family houses and condominiums, multi family houses larger than CHF 5 m (CHF 3 m, if older than 20 years) and commercial properties larger than CHF 2.5 m (CHF 2 m, if older than 20 years) are visited on-site by the cover pool committee.
- <sup>15</sup> Properties with occupancy type 'vacation' are immaterial (loans of CHF 95 m or 0.1 % of total).
- <sup>16</sup> If loans are 100, the lending value of member banks amounts to 242. In other words: the overall loan to value is 41 %.
- <sup>17</sup> Ratio: Cover value Pfandbriefbank divided by lending value member bank
- <sup>18</sup> Mortgages with mortgage LTV member bank > 80 % are considered as ETPs (exception to policy). ETPs can be covered by additional collateral, which is not pledged to Pfandbriefbank, but to member bank only.

## 7 Investment Risks

For consulting refer to your Swiss bank, which will evaluate your individual risk profile and advise you according to your needs. They also will inform you directly about restrictions.

## 8 Disclaimer

The content of this publication is for informational purposes only and shall not be construed as constituting a solicitation, an offer or a recommendation with respect to the purchase or sale of the "Swiss Pfandbriefe". Moreover, this publication is neither a prospectus in terms of art. 652a and art. 1156 CO (Swiss Code of Obligations, SR 220) nor a simplified prospectus pursuant to art. 5 para. 2 CISA (Collective Investment Schemes Act, SR 951.31). No investment decisions, or other kinds of decisions should be reached solely on the basis of information from this publication. Further information, such as the base prospectus for the listing on the SIX Swiss Exchange, can be requested from the "Pfandbriefbank".

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