CREDIT SUISSE

**Zurich, 27 May 2009**
Switzerland
**Swiss Institutional Credit Research**
Daniel Rupli, Credit Analyst, Tel. +41 44 333 13 79
daniel.rupli@credit-suisse.com

**Institutional Research Flash**

# White Paper No. 9
## Swiss covered bonds: Investors' flight to quality



### Legal framework

The Swiss Pfandbrief system was given its present form by the Federal Pfandbrief Act in force since 1931 (Pfandbriefgesetz PfG), complemented by the Pfandbriefverordnung (PfV). In contrast to other European countries, only two institutions are authorized to issue Pfandbriefe in Switzerland, namely the Pfandbriefzentrale der schweizerischen Kantonalbanken (the Pfandbrief institution for Swiss cantonal banks) and the Pfandbriefbank schweizerischer Hypothekarinstitute (the Pfandbrief institution acting for all other mortgage lenders in Switzerland). The scope of business activity at these two institutions is limited to the issuance of Swiss Pfandbriefe, the granting of Pfandbrief loans to their members as well as non-member banks against collateral ("specialized banking principle"), the investment of own assets and other short-term banking activities required to carry out the aforementioned tasks. Neither of the two institutions has a general banking license. Both institutions are supervised by the Swiss Federal Banking Commission. Swiss Pfandbriefe (literally: "letters of pledge") are in general standardized secured fixed-rate debt securities, collateralized by first lien mortgage loans. Maturities range from 2–20 years. Swiss Pfandbriefe are eligible as collateral for repo transactions with the Swiss National Bank.

### Strict regulation

Swiss Pfandbriefe are subject to strict regulation. The maturity and repayment profile of a Swiss Pfandbrief must match that of the underlying collateralized mortgage loans to banks (balance and cover principles). This eliminates the duration and interest rate risks (no currency risk as cover assets and Swiss Pfandbriefe must be in CHF). Early repayment of loans is permissible only if Swiss Pfandbriefe of the same series are delivered in lieu of cash. The loans must be covered at all times with domestic pledged collateral, and any shortfall must

### Highlights

- Swiss Pfandbriefe (Swiss covered bonds) are the second largest and most liquid segment on the Swiss domestic bond market after government bonds.
- Backed by a strong legal framework (amended only twice since 1931) and high-quality fundamentals, Swiss Pfandbriefe carry a Aaa-rating and are among the safest investments.
- Despite the overall increase in ASW spread levels since October 2008 following the worsening of the financial market turmoil, the spread levels of Swiss Pfandbriefe have remained on low levels compared to other covered bond markets or high quality issuers, illustrating the quality of Swiss Pfandbriefe.
- Swiss Pfandbriefe played a key role in stabilizing the Swiss banking system in 2008, helping to redistribute liquidity effectively at a time when increased counterparty risk brought money markets practically to a standstill.
- Swiss Pfandbriefe can hence be expected to continue playing their safe-haven role in the future and show tight asset swap spreads as a result.

be compensated with mortgages (PfG would also allow cash or listed bonds issued by the federal government, cantons or municipalities with a haircut; however, this is not used in practice). The mortgages in the cover pool must be listed in a cover register ("Pfandregister"), but are still held and managed by the banks themselves (but monitored by the Pfandbrief institutions). This is in contrast to mortgage-backed securities, where, through securitization, mortgage loans are removed from a bank's balance sheet. The mortgages included in the cover pool must be physically separated from other mortgages. The Pfandbriefbank highlighted that it thoroughly checks the eligibility of cover assets in a multi-step approach. Further, banks are required by law to replace impaired assets in the cover pool and also to increase the collateral if the interest income on the underlying mortgages is below the interest expense on the loan.

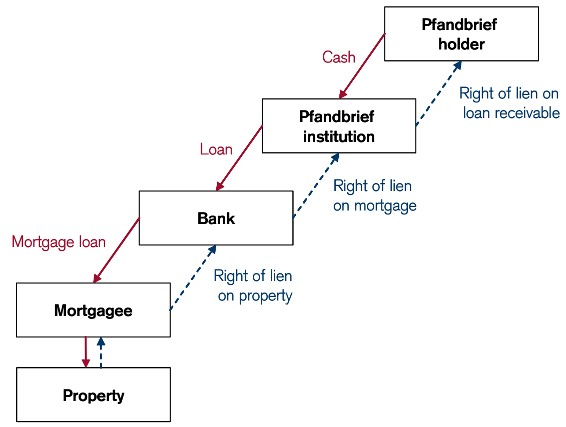
Based on the PfG, eligible assets for the cover pool are mortgages on real estate and land (excluding property whose value diminishes with exploitation such as mines and quarries) and Swiss Pfandbriefe secured on aforementioned assets. In Switzerland, the cover pool is largely made up of residential properties, whose default rates are considerably lower than those for mortgages on commercial properties. The maximum statutory loan-to-mortgageable value ratio is 2/3 applied on conservatively calculated underlying values (fair market value or "Verkehrswert" for residential property; capitalized earnings value or "Ertragswert" for multifamily homes). For all other real estate, the loan-to-mortgageable value ratio is 1/2. Further, mortgages in the cover pool are spread across Switzerland, which largely eliminates geographical cluster risk. On top of the already cautiously calculated cover assets, the two Pfandbrief institutions also require a higher degree of over-collateralization (OC) than required by law (PfG: 0% OC). At the Pfandbriefbank, pledged eligible mortgages must exceed the amount of loans by 3%, while the Pfandbriefzentrale requires 10% OC for member loans. This OC is relatively high, in our view, considering the fact that mortgages are repaid partly over time while the value of the pledged title remains unchanged and the property value increases.

## High security for Swiss Pfandbrief investors

Swiss Pfandbrief investors benefit from a chain of safety provisions, whereby obligations arising from Pfandbrief loans are backed not only by the underlying real estate mortgages (see Figure 1), but also by the mortgagee, the member banks with all their assets, and the Pfandbrief institution itself. Should a debtor bank of a Pfandbrief institution become insolvent, Swiss Pfandbrief investors and the Pfandbrief institution would have a direct preferential claim on the registered collateral backing the loan ("bankruptcy remoteness"), while other creditors could only lay claim to the cover pool once the claims of the Swiss Pfandbrief creditors were satisfied in full. As banks are required to redress insufficient collateral by placing new real estate mortgages into the cover pool, neither of the two Swiss Pfandbrief institutions has ever suffered a loss. It is also worth highlighting that the opening of bankruptcy proceedings cannot delay payments (both interest and principal) on Pfandbrief loans.

**Figure 1**

Collateralization provisions in the Swiss Pfandbrief model




**Source:** Credit Suisse

In the highly unlikely scenario that a Pfandbrief institution was to become insolvent, its liquid assets (primarily invested in high quality securities eligible as collateral with the Swiss National Bank) would be the first to be liquidated. As long as the cover pool is not substantially defective, the Swiss Pfandbriefe would continue to perform normally.

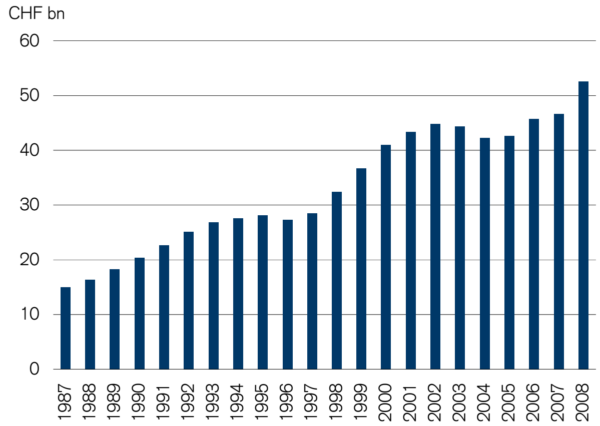
Moody's rates the Swiss Pfandbriefe issued by both the Pfandbriefbank and Pfandbriefzentrale "Aaa, Stable". The rating agency points to the strong legal framework under which these two institutions operate as well as the specific characteristics of the Swiss Pfandbriefe (i.e., high quality of collateral underpinning loans to member banks, over-collateralization, large and diversified pool of borrowers, legislation permitting the segregation of asset pools in situations of stress at member banks, thereby preventing the disruption of cash flows from the pools), which result in a negligible expected loss for investors.

## Market structure and developments

Swiss Pfandbriefe, accounting for around 21% of all listed Swiss domestic bonds as per April 2009 (up 3% from the end of 2007), are the second-largest segment on the Swiss domestic bond market after government bonds. Of the 97 Swiss Pfandbriefe with a total nominal value of CHF 47.5 billion listed on the SIX at end-April 2009, CHF 25.5 billion were issued by the Pfandbriefbank (52 issues) and CHF 22.0 billion (45 issues) by the Pfandbriefzentrale. Swiss Pfandbriefe tend to be smaller than those in other European markets, and so-called Jumbo Pfandbriefe (par value of at least CHF 1 billion) play only a minor role. This can be partly explained by the multi-tranche approach by the Pfandbrief institutions to achieve better distribution across maturities which range up to 20 years. The issue size and duration is largely dependent on the refinancing demand from Swiss banks or requests by investors. Aside from listed Swiss Pfandbriefe, the two Pfandbrief institutions have also sizeable private placements outstanding.

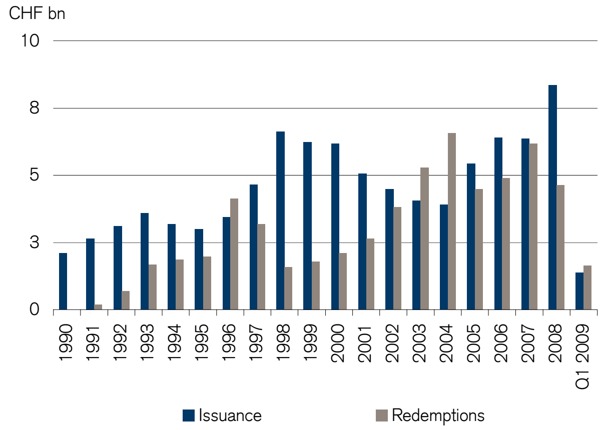
As illustrated in Figure 2, the volume of Swiss Pfandbriefe outstanding has expanded sharply over the past two decades

**Figure 2**
Total Swiss Pfandbriefe outstanding




**Source:** SNB Monthly Report April 2009, Credit Suisse

**Figure 4**
Swiss Pfandbriefe issuance activity

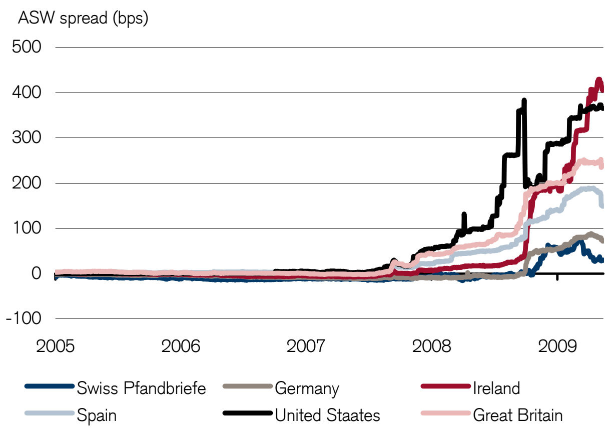



**Source:** SNB Monthly Report April 2009, Credit Suisse

with an annual growth rate of around 5.9%, which led to improved liquidity in the secondary market. The launch of the Swiss Pfandbrief Index in 2002 increased transparency further. This index is calculated on a daily basis by the SIX Swiss Exchange and shows the price and performance development of the underlying synthetic bonds. In contrast to other European covered bond markets where trading has almost come to a standstill since H2 2007 in view of the financial market turbulence, Swiss Pfandbriefe have remained liquid. Despite the overall increase in ASW spread levels since October 2008 following the worsening of the financial market turmoil, the spread levels of Swiss Pfandbriefe have remained on low levels compared to other covered bond markets or high quality issuers, illustrating the quality of the Swiss Pfandbriefe (Figure 3). Spreads have more recently narrowed back to normal levels since the implementation of the quantitative easing measures by the Swiss National Bank, which included the purchase of Swiss Pfandbriefe.

Issuance activity was very lively during 2008 with net new issuance of CHF 3.7 billion versus CHF 0.2 billion in 2007 (Figure 4). The rediscovery by Swiss banks of the Swiss Pfandbrief as a low cost and efficient means to refinance

**Figure 3**
Covered bonds ASW spreads by countries of origin




**Source:** Credit Suisse

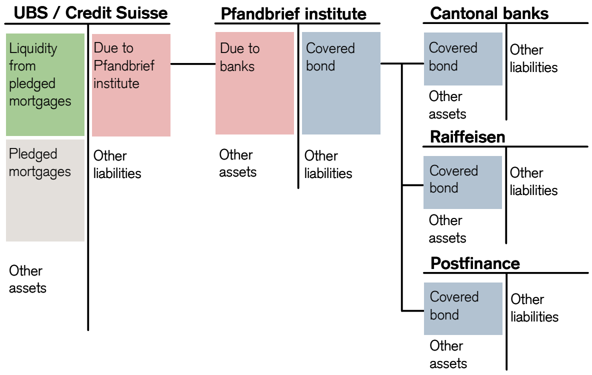
mortgage lending activities ("supply kick") on the one hand, and investors' flight to high-quality liquid bonds combined with a lack of alternatives given the low capital market activity by the public sector in 2008, on the other, explains this development. At end-April 2009, issuance volume already reached CHF 2.9 billion (of which Pfandbriefbank schweizerischer Hypothekarinstitute: CHF 2.0 billion and Pfandbriefzentrale der schweizerischen Kantonalbanken: CHF 0.9 billion), accounting for about 28.2% of domestic CHF issuance (excluding Swiss government bonds).

## Active role in stabilizing the Swiss banking system in 2008

After the collapse of Lehman in September 2008, interbank lending virtually stopped in Switzerland much as elsewhere in the world. The two large Swiss banks which are globally active and highly dependent on liquid interbank lending activities were affected. UBS in particular faced strong demand for liquidity as it additionally suffered from large net money outflows. Swiss cantonal banks, Raiffeisen and Postfinance, in contrast, benefited from large new net money inflows but did not have attractive investment opportunities and parked their excess liquidity for virtually zero interest rate at the Swiss National Bank (SNB). Although those banks in need of liquidity would have been able to provide first class securities through their domestic mortgage portfolio to pledge against liquidity, local laws do not allow domestic banks to directly use their mortgage portfolio for borrowing activities. A solution was found making use of the framework provided by Swiss Pfandbriefe. Under the coordination of the SNB, the Pfandbriefbank issued around CHF 2.0 billion in Pfandbriefe privately placed with Zürcher Kantonalbank (ZKB), Postfinance and Raiffeisen, which all had excess liquidity. Borrowing institutions, primarily UBS, in return pledged a large amount of their mortgage portfolio to get access to liquidity via a loan by the Swiss Pfandbriefbank (see Figure 5). In that way, the borrowers were able to access liquidity at a better refinancing rate than what they would have been able to achieve on the market under prevailing credit conditions while the lenders invested their excess liquidity at a

**Figure 5**

Swiss Pfandbrief transactions




**Source:** SNB, Credit Suisse

higher yield and at a low risk. The result was beneficial to all parties as well as to the Swiss banking system in general. In March 2009, another CHF 4.75 billion benchmark transaction took place with the two big banks acting as borrowers and the aforementioned institutions being lenders.

## Conclusion and outlook

Swiss Pfandbriefe exhibit legal, regulatory and fundamental characteristics, which imply high credit quality and strong safety for investors. Additionally, the Swiss Pfandbrief model has shown its ability to play a crucial intermediary role in allocating liquidity across the banking system at a time when increased counterparty risk brought interbank money markets practically to a standstill. It needs, however, to be noted, that the capitalization of the Swiss Pfandbrief institutions has been stretched on the back of the recent transactions and this bears risks if pursued in an uncontrolled way. The following measures have been taken to prevent this and to maintain the high quality of Pfandbriefe as an asset class. An amendment of the Pfandbriefverordnung has been agreed to allow subordinated debt as capital if Pfandbrief transactions are temporary. Additionally, large private placements must be subject to an approval from the FINMA. In the event that large transactions impact the Pfandbrief institutions' liquidity at maturity, lending institutes have further agreed to allow the Pfandbrief institutions to expand their re-payment schedule in a worst case scenario. Swiss Pfandbriefe can hence be expected to continue playing their safe-haven role in the future and show tight asset swap spreads as a result.

## Disclosure appendix

**Analyst certification**
The analysts identified in this report hereby certify that views about the companies and their securities discussed in this report accurately reflect their personal views about all of the subject companies and securities. The analysts also certify that no part of their compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

**Important disclosures**
Credit Suisse policy is to publish research reports, as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein. Credit Suisse policy is only to publish investment research that is impartial, independent, clear, fair and not misleading.

The Credit Suisse Code of Conduct to which all employees are obliged to adhere, is accessible via the website at:
**https://www.credit-suisse.com/governance/en/code_of_conduct.html**

For more detail, please refer to the information on independence of financial research, which can be found at:
**https://www.credit-suisse.com/legal/pb_research/independence_en.pdf**

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse Investment Banking business.

**Additional disclosures for the following jurisdictions**

**Hong Kong:** Other than any interests held by the analyst and/or associates as disclosed in this report, Credit Suisse Hong Kong Branch does not hold any disclosable interests. **United Kingdom:** For fixed income disclosure information for clients of Credit Suisse (UK) Limited and Credit Suisse Securities (Europe) Limited, please call +41 44 333 33 99.

For further information, including disclosures with respect to any other issuers, please refer to the Credit Suisse Global Research Disclosure site at:
**http://www.credit-suisse.com/research/disclaimer**

## Guide to analysis

**Corporate bond recommendations**
The recommendations are based fundamentally on forecasts for total returns versus the respective benchmark on a 3–6 month horizon and are defined as follows:

**BUY:** Expectation that the bond issue will be a top performer relative to its sector and rating class
**HOLD:** Expectation that the bond issue will be a average performer relative to its sector and rating class
**SELL:** Expectation that the bond issue will be a poor performer relative to its sector and rating class
**RESTRICTED:** In certain circumstances, internal and external regulations exclude certain types of communications, including e.g. an investment recommendation during the course of Credit Suisse engagement in an investment banking transaction.

**Credit ratings definition**
The Swiss Institutional Credit Research of Private Banking division at Credit Suisse assigns ratings to investment-grade and sub-investment-grade issuers. Ratings are based on our assessment of a company's creditworthiness and are not recommendations to buy or sell a bond. The ratings scale (AAA, AA, A, BBB, BB and below) is dependent on our assessment of an issuer's ability and willingness to meet its financial commitments on a timely manner and in full.

**AAA:** Best credit quality and lowest expectation of credit risks, including an exceptionally high capacity level with respect to debt servicing. This capacity is unlikely to be adversely affected by foreseeable events.
**AA:** Obligor's capacity to meet its financial commitments is very strong
**A:** Obligor's capacity to meet its financial commitments is strong
**BBB:** Obligor's capacity to meet its financial commitments is adequate, but adverse economic / operating / financial circumstances are more likely to impact the capacity to meet its obligations
**BB and below:** Interest and debt obligations have speculative characteristics and are subject to substantial credit risk due to adverse economic / operating / financial circumstances resulting in inadequate capacity to service its obligations

For the AA, A, BBB, BB and below categories, creditworthiness is further detailed with a scale of High, Mid, or Low, with High being the strongest sub-category rating. An Outlook indicates the direction a rating is likely to move over a twelve to eighteen month period. Outlooks may be "positive", "stable" or "negative". A positive or negative Rating Outlook does not imply a rating change is inevitable. Similarly, ratings for which outlooks are stable could be upgraded or downgraded before an outlook moves to positive or negative if circumstances warrant such an action. A rating may also be "under review", indicating a potential rating action.

## Global disclaimer / important information

References in this report to Credit Suisse include subsidiaries and affiliates. For more information on our structure, please use the following link:
**http://www.credit-suisse.com/who_we_are/en/**

The information and opinions expressed in this report were produced by the Global Research department of the Private Banking division at Credit Suisse as of the date of writing and are subject to change without notice. Views expressed in respect of a particular stock in this report may be different from, or inconsistent with, the observations and views of the Credit Suisse Research department of Division Investment Banking due to the differences in evaluation criteria. The report is published solely for information purposes and does not constitute an offer or an invitation by, or on behalf of, Credit Suisse to buy or sell any securities or related financial instruments or to participate in any particular trading strategy in any jurisdiction. It has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Although the information has been obtained from and is based upon sources that Credit Suisse believes to be reliable, no representation is made that the information is accurate or complete. Credit Suisse does not accept liability for any loss arising from the use of this report. The price and value of investments mentioned and any income that might accrue may fluctuate and may rise or fall. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to individual circumstances, or otherwise constitutes a personal recommendation to any specific investor. Any reference to past performance is not necessarily indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any products mentioned in this document. Alternative investments, derivative or structured products are complex instruments, typically involve a high degree of risk and are intended for sale only to investors who are capable of understanding and assuming all the risks involved. Investments in emerging markets are speculative and considerably more volatile than investments in established markets. Risks include but are not necessarily limited to: political risks; economic risks; credit risks; currency risks; and market risks. An investment in the funds described in this document should be made only after careful study of the most recent prospectus and other fund information and basic legal information contained therein. Prospectuses and other fund information may be obtained from the fund management companies and/or from their agents. This report is directed at Credit Suisse's market professionals and institutional clients. Recipients who are not market professionals or institutional clients of Credit Suisse should, before entering into any transaction, consider the suitability of the transaction to individual circumstances and objectives. Credit Suisse recommends that investors independently assess, with a professional financial advisor, the specific financial risks as well as legal, regulatory, credit, tax and accounting consequences. A Credit Suisse company may, to the extent permitted by law, participate or invest in other financing transactions with the issuer of the securities referred to herein, perform services or solicit business from such issuers, and/or have a position or effect transactions in the securities or options thereof.

**Distribution of research reports**

Except as otherwise specified herein, this report is distributed by Credit Suisse, a Swiss bank, authorized and regulated by the Swiss Federal Market Supervisory Authority. **Australia:** This report is distributed in Australia by Credit Suisse, Sydney Branch (CSSB) (ABN 17 061 700 712 AFSL 226896) only to "Wholesale" clients as defined by s761G of the Corporations Act 2001. CSSB does not guarantee the performance of, nor makes any assurances with respect to the performance of any financial product referred herein. **Bahamas:** This report was prepared by Credit Suisse, the Swiss bank, and is distributed on behalf of Credit Suisse, Nassau Branch, a branch of the Swiss bank, registered as a broker-dealer by the Securities Commission of the Bahamas. **Bahrain:** This report is distributed by Credit Suisse, Bahrain Branch, authorized and regulated by the Central Bank of Bahrain (CBB) as an Investment Firm Category 2. **Dubai:** This information is distributed by Credit Suisse Dubai branch, duly licensed and regulated by the Dubai Financial Services Authority (DFSA). Related financial products or services are only available to wholesale customers with liquid assets of over USD 1 million who have sufficient financial experience and understanding to participate in financial markets in a wholesale jurisdiction and satisfy the regulatory criteria to be a client. **France:** This report is distributed by Credit Suisse (France), authorized by the Comité des Etablissements de Crédit et des Entreprises d'Investissements (CECEI) as an investment service provider. Credit Suisse (France) is supervised and regulated by the Commission Bancaire and the Autorité des Marchés Financiers. **Germany:** Credit Suisse (Deutschland) AG, authorized and regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin), disseminates research to its clients that has been prepared by one of its affiliates. **Gibraltar:** This report is distributed by Credit Suisse (Gibraltar) Limited. Credit Suisse (Gibraltar) Limited is an independent legal entity wholly owned by Credit Suisse and is regulated by the Gibraltar Financial Services Commission. **Guernsey:** This report is distributed by Credit Suisse (Guernsey) Limited. Credit Suisse (Guernsey) Limited is an independent legal entity wholly owned by Credit Suisse and is regulated by the Guernsey Financial Services Commission. Copies of annual accounts are available on request. **Hong Kong:** This report is issued in Hong Kong by Credit Suisse Hong Kong branch, an Authorized Institution regulated by the Hong Kong Monetary Authority and a Registered Institution regulated by the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). **India:** This report is distributed by Credit Suisse Securities (India) Private Limited ("Credit Suisse India"), regulated by the Securities and Exchange Board of India (SEBI). **Italy:** This report is distributed in Italy by Credit Suisse (Italy) S.p.A., a bank incorporated and registered under Italian law subject to the supervision and control of Banca d'Italia and CONSOB. **Luxembourg:** This report is distributed by Credit Suisse (Luxembourg) S.A., a Luxembourg bank, authorized and regulated by the Commission de Surveillance du Secteur Financier (CSSF). **Mexico:** The information contained herein does not constitute a public offer of securities as defined in the Mexican Securities Law. This report will not be advertised in any mass media in Mexico. This report does not contain any advertisement regarding intermediation or providing of banking or investment advisory services in Mexico or to Mexican citizens. **Qatar:** This information has been distributed by Credit Suisse Financial Services (Qatar) L.L.C, which has been authorized and is regulated by the Qatar Financial Centre Regulatory Authority (QFCRA) under QFC No. 00005. All related financial products or services will only be available to Business Customers or Market Counterparties (as defined by the Qatar Financial Centre Regulatory Authority (QFCRA)), including individuals, who have opted to be classified as a Business Customer, with liquid assets in excess of USD 1 million, and who have sufficient financial knowledge, experience and understanding to participate in such products and/or services. **Russia:** The research contained in this report does not constitute any sort of advertisement or promotion for specific securities, or related financial instruments. This research report does not represent a valuation in the meaning of the Federal Law On Valuation Activities in the Russian Federation and is produced using Credit Suisse valuation models and methodology. **Singapore:** Distributed by Credit Suisse Singapore branch, regulated by the Monetary Authority of Singapore. **Spain:** This report is distributed in Spain by Credit Suisse Spain branch, authorized under number 1460 in the Register by the Banco de España. **United Kingdom:** This report is issued by Credit Suisse (UK) Limited and Credit Suisse Securities (Europe) Limited. Credit Suisse Securities (Europe) Limited and Credit Suisse (UK) Limited, both authorized and regulated by the Financial Services Authority, are associated but independent legal entities within Credit Suisse. The protections made available by the Financial Services Authority for retail clients do not apply to investments or services provided by a person outside the UK, nor will the Financial Services Compensation Scheme be available if the issuer of the investment fails to meet its obligations.

**UNITED STATES:** NEITHER THIS REPORT NOR ANY COPY THEREOF MAY BE SENT, TAKEN INTO OR DISTRIBUTED IN THE UNITED STATES OR TO ANY US PERSON.

**Japan:** Neither this report nor any copy thereof may be sent, taken or distributed in Japan.

Local law or regulation may restrict the distribution of research reports into certain jurisdictions.

---