Use of Covered Bonds

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Outline of the Presentation

- Overview of covered bonds

- Why covered bonds?
  - Benefits for the issuer
  - Benefits for investors

- How to issue a covered bond?
  - Structuring covered bond
  - EU legislation overview

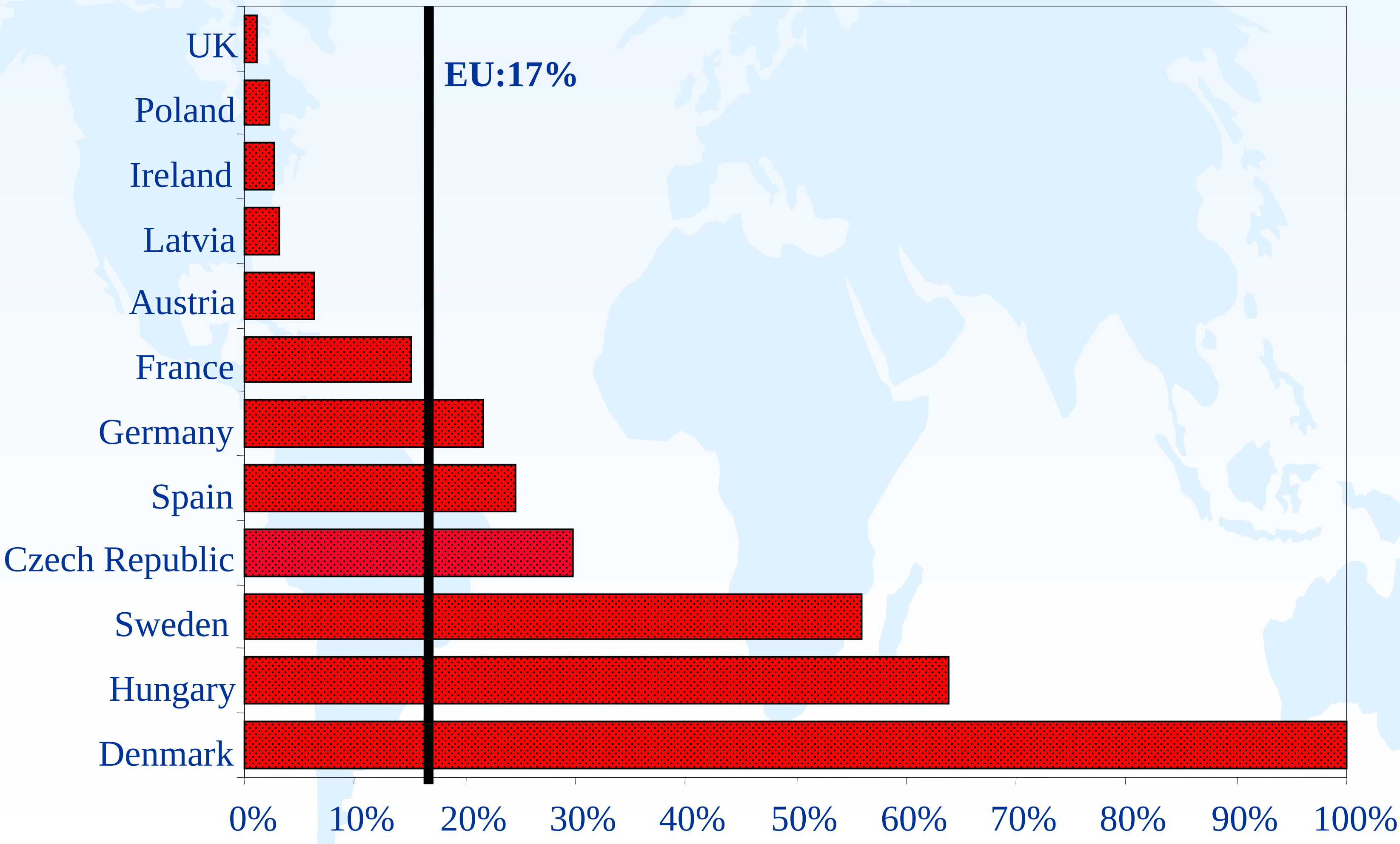
- Two case studies:
  - Spanish Cédulas Hipotecarias
  - German Pfandbriefe

- Time for questions

What is a Covered Bond?

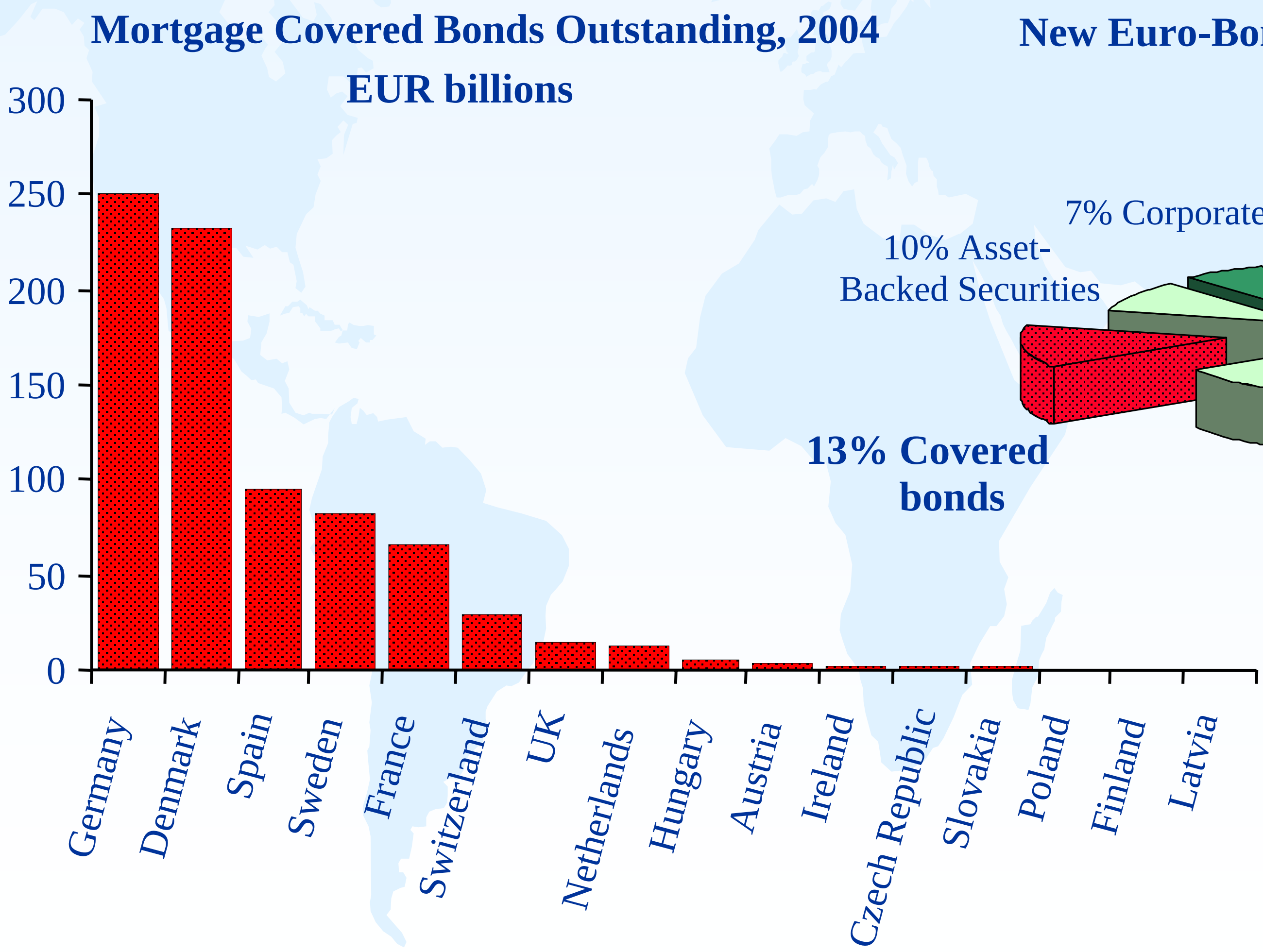
- Covered bonds are debt instruments secured against a pool of mortgages or public sector debt to which the investor has a preferred claim in the event of an issuer default
- In contrast to other mortgage-backed securities, the cover pool remains on the balance sheet of the issuer and eligible assets are substitutable
- In EU countries the issuance of mortgage covered bonds is regulated by laws that define the criteria for eligible assets and other specific requirements

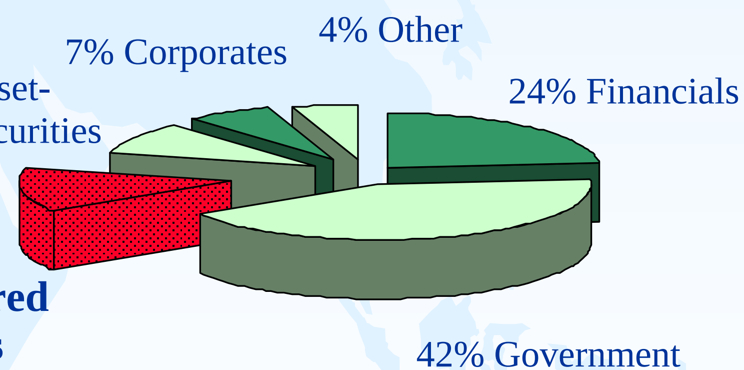
Covered Bonds in Percent of Mortgage Debt Outstanding, 2004



Source: European Covered Bond Council.

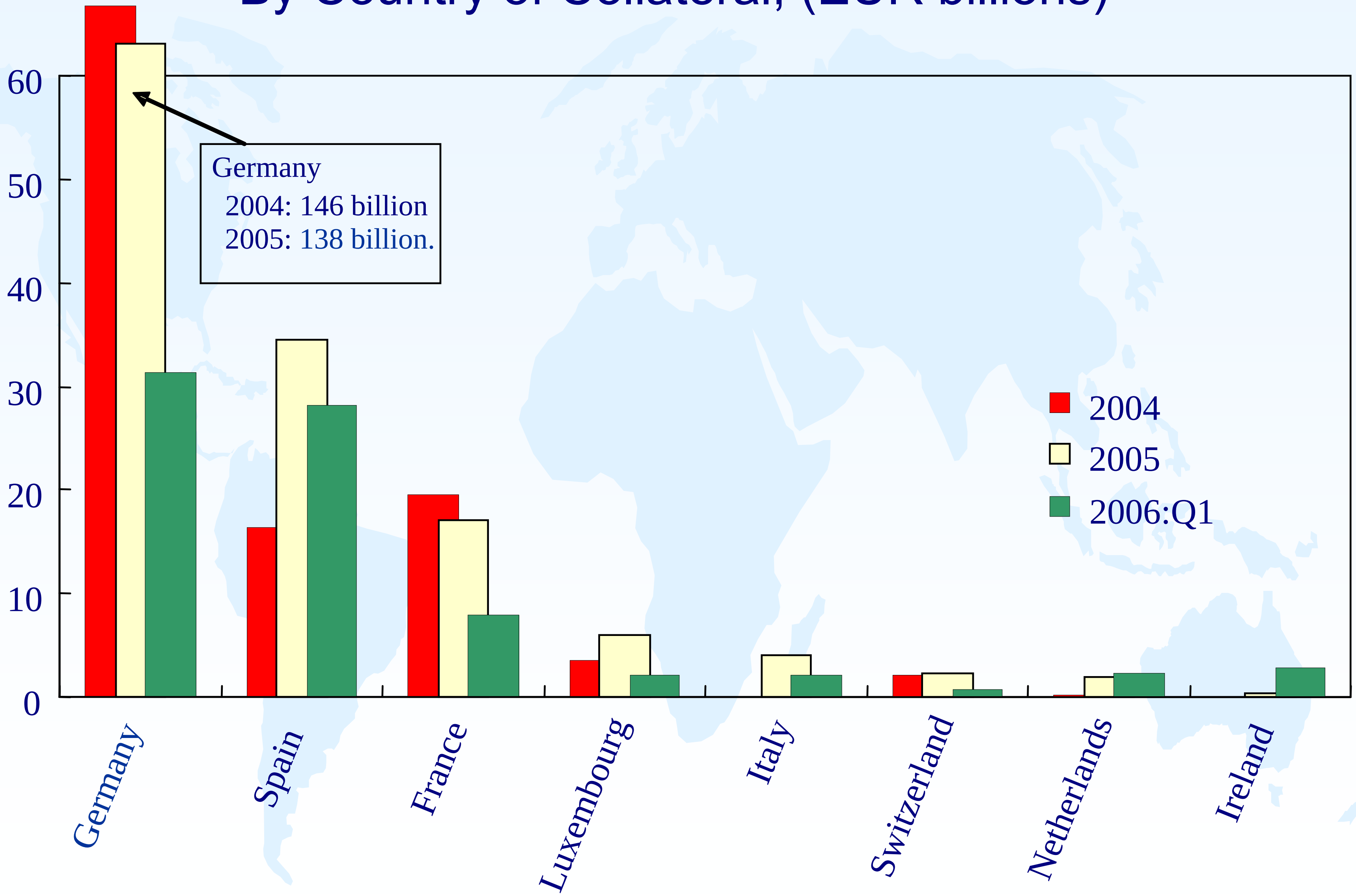
Covered Bond Market in Europe





Source: European Covered Bond Council and European Commission.

European Covered Bond Issuance
By Country of Collateral, (EUR billions)



Source: Dealogic, European Securitization Forum.

Why Covered Bonds?

- **Credit enhancement and lower cost of borrowing:** The current gap between the average long-term rating on Russian Banks and the credit quality of their residential and commercial mortgage assets creates incentives for securitization and issuance of mortgage-backed bonds

- **Broadening investor base:** Access to the European and international markets

- **Asset Liability Management:** Allows for better long-term liquidity management and matching of increasing duration of assets (mortgage lending) with long-term financing

- **Insures stability of funding:** An important source of funding when deposits are less stable, mostly short-term, or concentrated in a few banks

- **Club funding:** Important for small regional credit institutions to gain access to capital markets through joint-issuance of a covered bond. The pool may enjoy further credit enhancement as a result of regional diversification

Why Invest in Covered Bonds?

- Advantages for the investors:
  - high security and highly rated investments
  - higher yield than government bonds
  - highly liquid markets in a wide range of maturities
  - geographic and product diversification

- The largest investors are as follows, with corresponding typical allocations within their portfolios:

– Central banks	10-20 percent
– Insurers	2-7 percent
– Funds and asset managers	20-40 percent
– Savings and coop banks	20-40 percent
– Pension funds	5-15 percent

- Highly rated covered bonds are largely placed with international investors

Covered Bond Rating

- In order for covered bond rating can be “de-linked” from issuer rating the legal system needs to ensure that:
  - during the regular course of business as well as in a liquidation scenario covered bond investors continue to receive interest and principal in line with the original schedule
- Germany: most often Triple-A rating
- Spain: generally 2-5 notches above the senior rating of the issuer
- France: Obligations Fonciéres are Triple-A

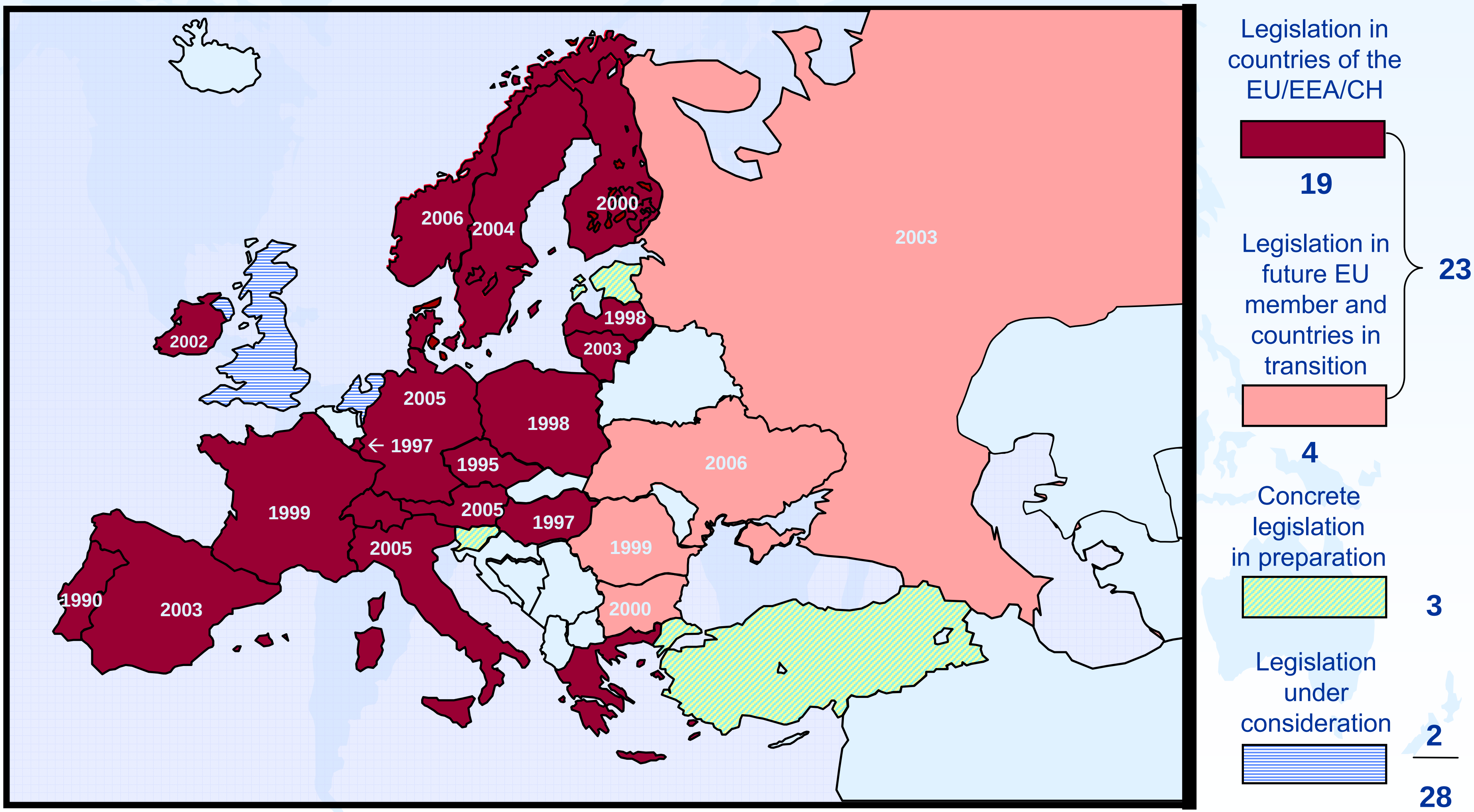
Structuring Covered Bonds

- Asses asset quality of the cover pool
  - probabilities of default and correlations
  - geographical diversification
  - loan concentration
  - recovery rates and speed of recovery
- Ensure stability of cash flows
  - maturity mismatches
  - hedging interest rate and currency risks
  - modeling prepayments
- Conduct stress testing and scenario analysis
- Determine level of overcollateralization

Regulatory and accounting treatment

- Changes in Basel II are aimed at removing incentives for capital arbitrage using securitization
- Covered bond legislation exists in most European countries
- In the EU covered bonds are explicitly treated under the recently adopted EU CAD
- Supervisory and accounting treatments of securitization continue to differ

Covered Bond Legislation in Europe



Source: European Covered Bond Council as of January 2006.

European Covered Bonds: A Comparison

Capital markets	Germany German Pfandfried	Spain Cédulas Hipotecarias	France Obligations Fonciéres
Investors	Institutional investors mainly	Spanish domestic retail customers in the past, institutional investors mainly since 1999	Mainly institutional investor
Trustee	Yes, independent trustee	No	Yes
Statutory preferential right in bankruptcy	Preferential claim	Special privilege; preferential claim on the whole mortgage loan portfolio	OF have preferential claim over all other creditors (including the state) until fully reimbursed
Separate collateral pool	Two separate collateral pools for public-sector and mortgage Pfandbriefe	No	One single pool of assets
Maximum LTV	60% of lending value	80% housing, 70% commercial	60%-80% housing, 60% commercial
Minimum overcollateralization	Yes, 2 percent	Yes, 11 percent	No. OF are covered by 100 percent of eligible assets
Specialist bank principle	Yes, main issuers are German mortgage banks and Landesbanks	No, all Spanish banks are allowed to issue CH	Yes, issuers are special purpose financial institutions

Source: Rating agencies, country legislation, BBVA.

Asset Swap Spreads on Covered Bonds

- Asset swap spread is a convenient measure of performance:
  - par/par asset swap allows to focus on credit risk
  - asset swap curve lacks the idiosyncrasies of bonds
  - it is useful when government bond market is fragmented

- Asset swap spreads for covered bonds have been declining steadily and are in +/-10 basis point range for Span and Germany

Asset Swap Spread Calculation

- Par/Par asset swap is defined as

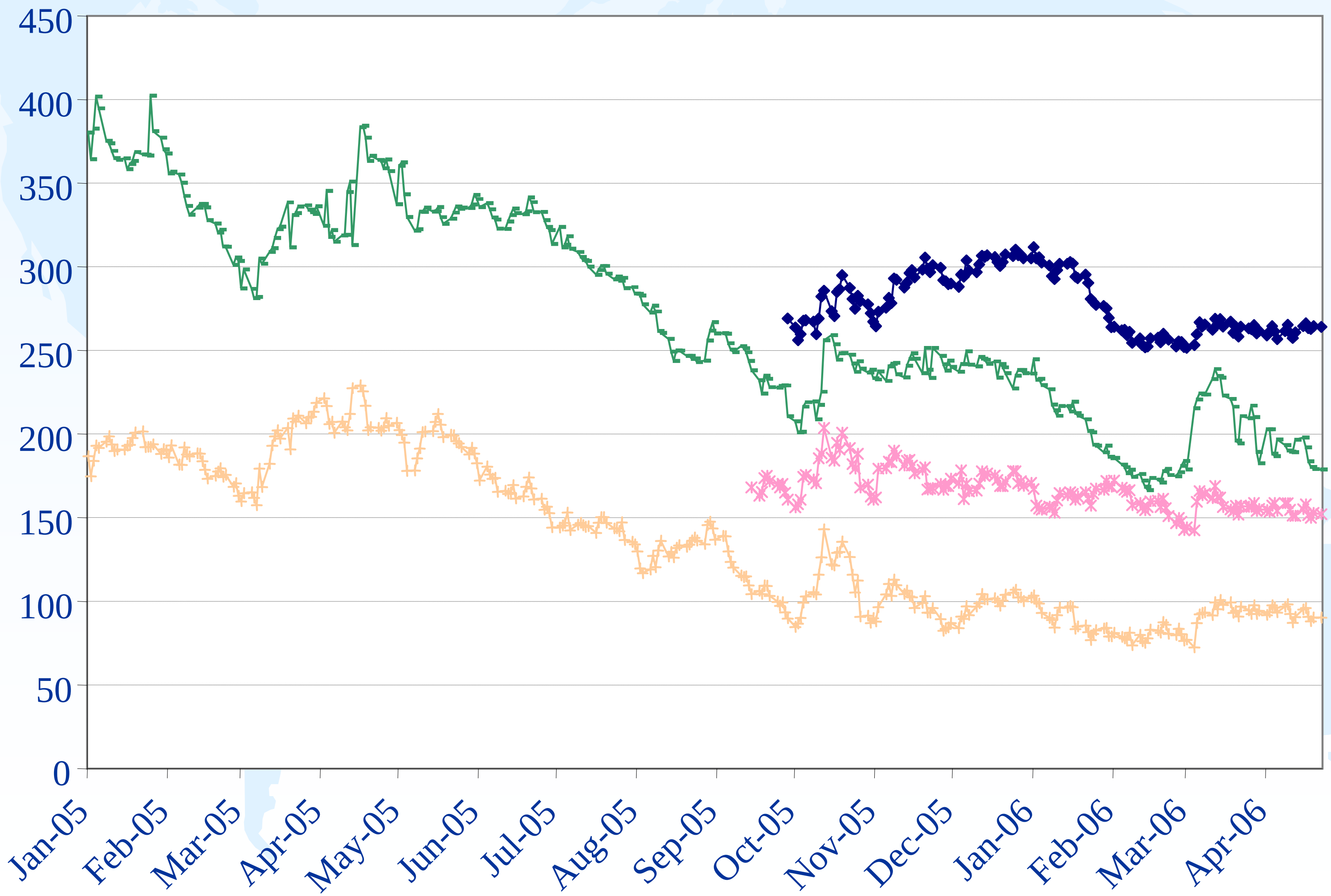
$$(P-1) = C\sum_{i=1}^{N_{Fixed}} df(0,i) - \sum_{i=1}^{N_{Float}} \Delta_i \left(L(i-1,i)+A\right) df(0,i)$$

- How asset swap compares to other instruments

Bond/Loan		**Asset Swap**		**Credit Default Swap**
Credit risk		Credit risk	→	Credit risk
Funding risk	→	Funding risk		
Risk free rate				

Source: JP Morgan.

Selected Russian Banks: Asset Swap Spreads, Jan 2005 - April 2005



Source: Bloomberg.

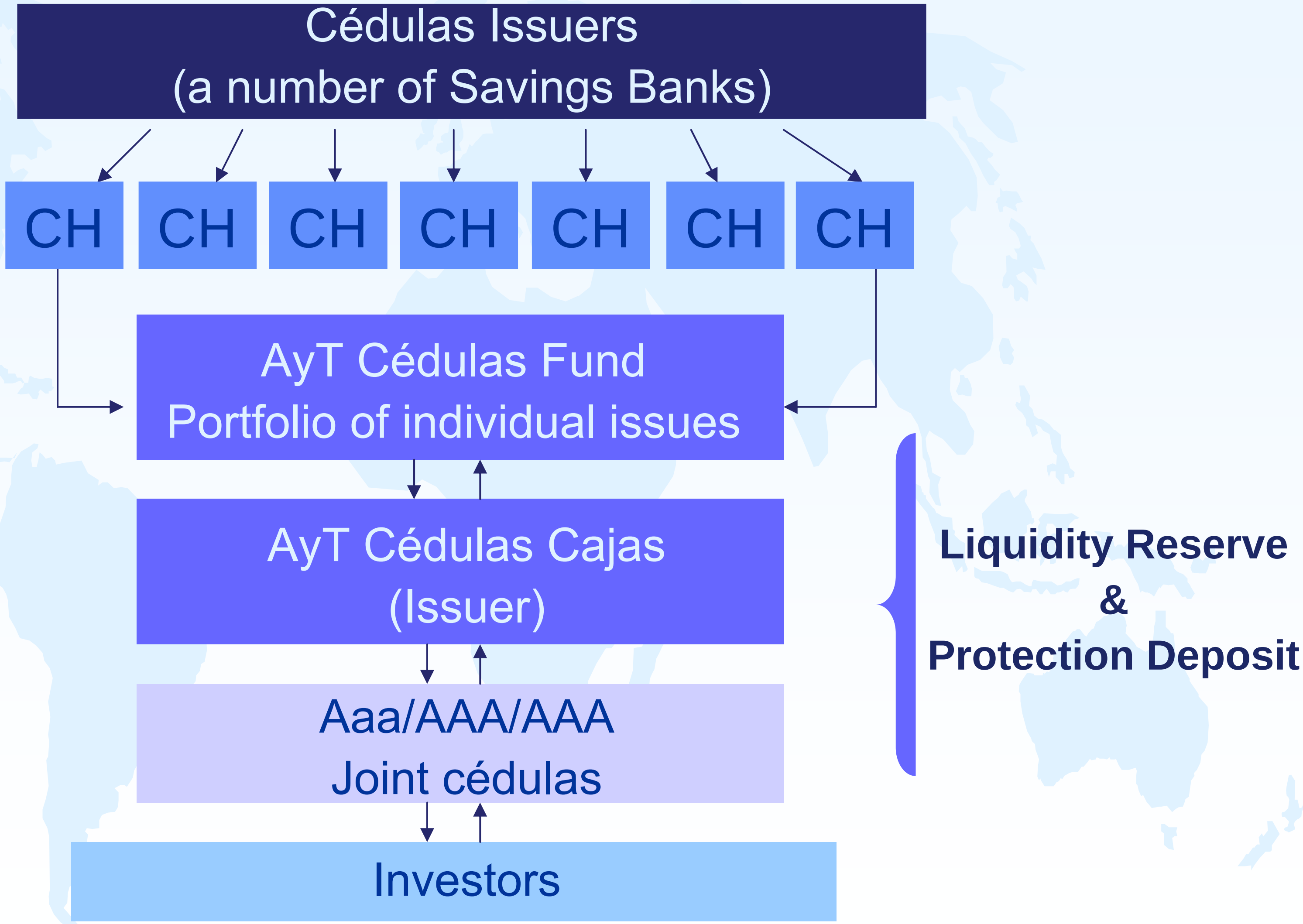
Case Study:
Spanish Covered Mortgage Bonds

- The attractive features of "*cédulas hipotecarias*" or CHs to Spanish banks are:
  - relatively low funding rates
  - mortgages remain on-balance sheet
- Recently about 83 percent all the securitization activities were backed by mortgages, including mortgage loans and CHs
- CHs are the preferred asset in securitizations, followed by mortgage loans, and small-medium enterprise loans
- CHs give access to international markets - about 62 percent of the securitization bonds were bought by foreign investors

Spanish Covered Mortgage Bonds: Quality of Mortgage Portfolio

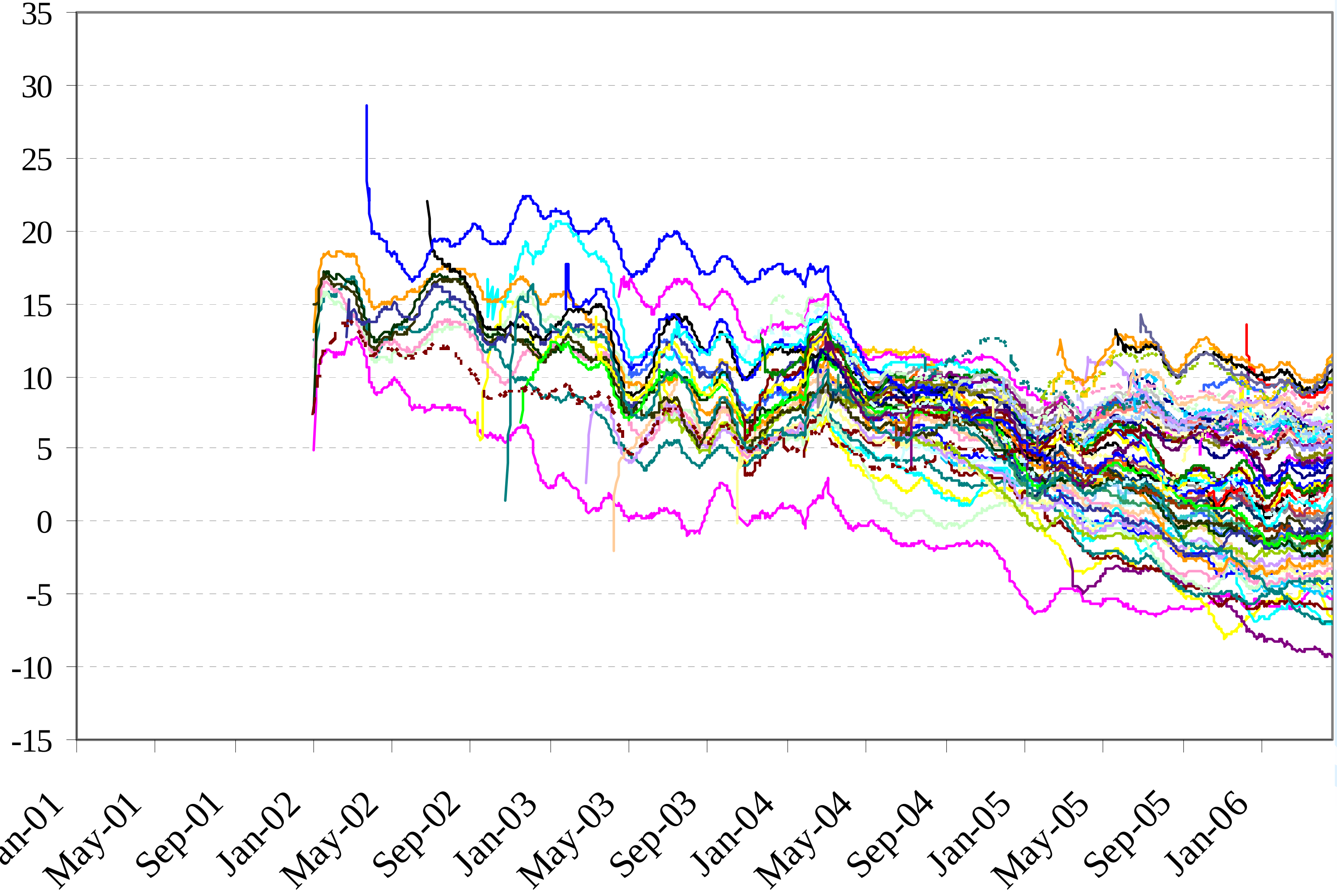
- Quality of the mortgage portfolio is important for:
  - credit risk of the Spanish financial institutions
  - ability to raise funding abroad at low rates
- Credit quality of CHs is related to:
  - soundness of the issuer
  - quality and size of the mortgage portfolio
  - level of over-collateralization (11 percent required by law, but in practice is much higher)
  - preferential rights of CH holders in the event of bankruptcy

Spanish Covered Mortgage Bonds: Club-funding



Source: AyT, HVB.

Asset Swap Spreads of Jumbo Cédulas Hipotecarias
(In basis points)



Source: Bloomberg.

Spanish Covered Mortgage Bonds: Analysis of Spreads

- CH spreads have narrowed since 2002, and for some of the older issues, the spreads in 2005 show a premium relative to the swap rate reflecting a positive sentiment of the market

- However, since early 2005, there is an increased dispersion in the spreads of different issues as a result of new, longer-term CHs, which tend to pay higher spreads

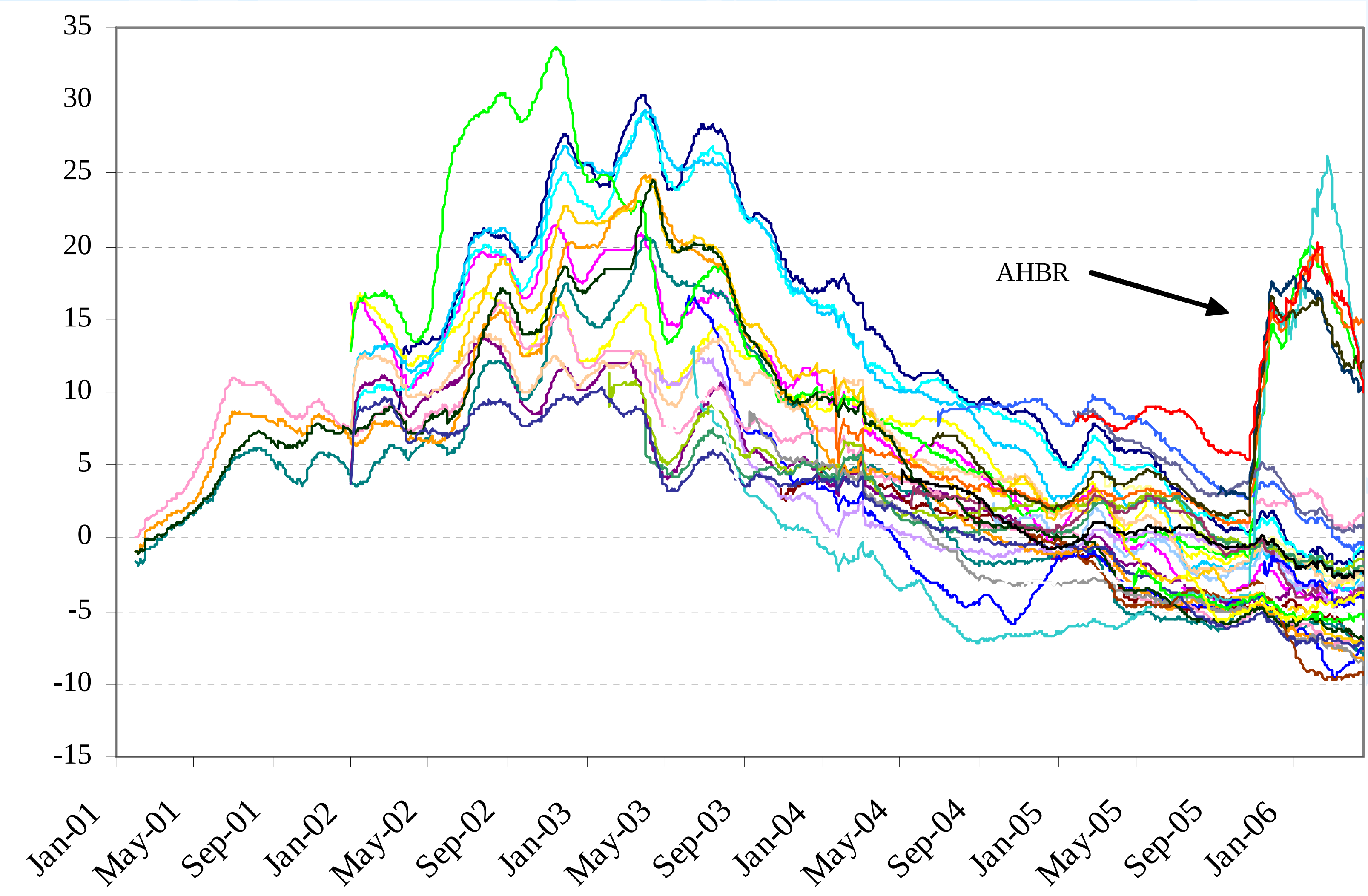
- The higher spreads paid on longer-term (i.e., riskier) instruments may reflect the market perception of increased riskiness associated with the growing exposures of credit institutions to a possibly overvalued housing market

Case Study:
German Pfandbriefe

- German Pfandbriefe (PF) were taken as a model in several European countries where legal frameworks for mortgage backed securities were reformed in the late 1990s

- The high credit quality of mortgage PF stems from:
  - well-established regulatory framework
  - collateral pool must be covered by related assets of at least an equal amount and yield
  - high quality of the cover pool encompassing first ranking mortgages with LTV ratios no higher than 60 percent
  - privileged position of PF holders in case of bankruptcy

Asset Swap Spreads of Jumbo Mortgage Pfandbriefe (In basis points)



Source: Bloomberg.

German Pfandbriefe: Analysis of Spreads

- Since 2003, PF spreads have fallen substantially, especially those that were at higher levels. As a result, most of the PF trade currently at a premium relative to the swap rate (i.e. negative spread) within a relatively narrow band between +2 and −10 basis points

- There is an exception to this positive trend – in September 2005, one of the main issuers of mortgage PF, Allgemeine Hypotekenbank Rheinboden (AHBR), was on the brink of bankruptcy

German Pfandbriefe: Allgemeine Hypotekenbank Rheinboden (AHBR) Restructuring

- AHBR faced financial difficulties as a result of mismanagement of its fixed income loan book
- The markets reacted strongly and AHBR was downgraded to non-investment grade (from single A)
- The spreads for its mortgage PF increased from nearly zero to about 15 basis points
- After AHBR was taken over by a U.S. financial investment company and following the announcement of the restructuring plans in January 2006, the spreads have come down
- However, while AHBR's rating was severely downgraded, its covered bonds remained highly rated (AA-AAA) throughout this process

Conclusions

- Covered bonds provide access to international capital markets for institutions that otherwise might have difficulties

- Covered bonds can ensure secure stable, affordable, long-term funding

- Legal system allowing for protection of covered bond assets in liquidation is important for rating

- Appropriate structure of covered bonds (including level of overcollateralization) can also help ensure a desired rating