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Housing Finance in Germany

Principles and Practice of Housing Finance in Germany and Other Selected Countries

Contents

1. Introduction

This paper addresses the development of housing and mortgage finance for transition countries. This is done by first looking at the German system, that already has been a role model for the development of other countries, notably in Eastern Europe. So after describing and analyzing the German system as a base scenario, the paper will proceed looking at differences in other Western countries, with emphasis on the USA, and in Eastern European transition countries, especially Poland.

The U.S. have been chosen because they are the archetype of a market based system. Poland has been chosen because it cared for the development of mortgage finance very early during the transition. It put in place the legal base for mortgage lending and removed the majority of home ownership subsidies from the banking system. Nevertheless some policies were not optimal and follower countries may be able to learn from these experiences.

2. Housing Finance in Germany

2.1. Construction in Germany – some numbers

Construction activity in the official German statistics is separated in residential (home-) buildings and non-residential buildings.[1] The stock of residential buildings in the end of 2000 was 17 mill. with 38 mill. apartments. In Germany 360000 buildings have been completed in the year 2000 (new construction and modernization), whereof 300000 have been residential and 60000 non-residential. This included the completion of 423000 apartments.[2]

For new constructions only the numbers are: 260000 completed buildings, 221000 residential and 39000 non-residential. 377000 new apartments have been completed. It is estimated that between 2001 and 2005 the construction activity decreases by 10% in Germany, whereas in Middle-Eastern Europe[3] a 20% increase is

1 Residential buildings are defined as at least 50%of the space has to be allocated as residential space.

2 Statistical Yearbook of Germany 2002, Chapter 10 and Federal Office of Statistics, series (Fachserie) 5.

3 Poland, Hungary, Czech Republic and Slovakia.

expected.[4] 60% of the completed apartments (incl. houses) in Germany have been owner apartments.

The following table shows who has been the builder of residential houses:

Table 1: Residential buildings by building contractors (2000)

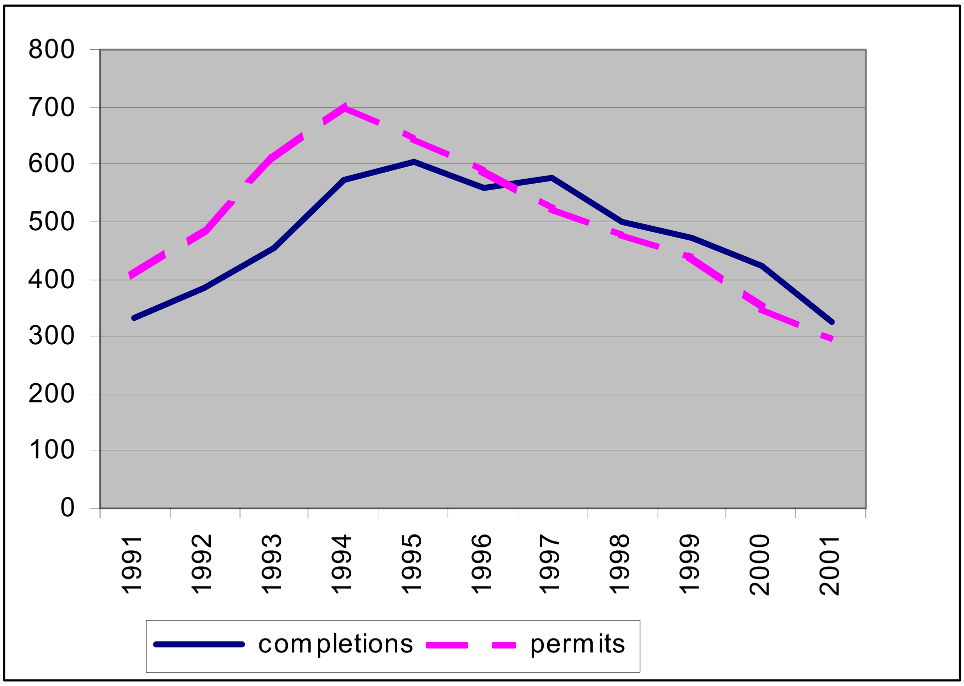
Type of contractor	Buildings completed	Percentage
Public sector	2254	0.8%
Business sector	64595	21,5%
Housing companies	52063	17,4%
Real estate funds	1832	0,6%
other	10700	3,6%
Private households	233084	77,7%
Total:	*299933*	*100%*

Source: Statistical Yearbook 2002.

In the non-residential segment building contractors have mainly been the corporate sector (41398 buildings), followed by private households (9864) and the public sector (8026).

4 see: Der langfristige Kredit, June 2003, p. 212.

Chart 1: Building permits and completed apartments in residential and non-residential buildings



Source: Stat. Yearbook Germany 2002 and Bundesverband deutscher Wohnungsunternehmen (GdW): Wohnungswirtschaftliche Daten und Trends 2002/2003, Hamburg 2002.

For comparison: In Poland (2000) 32000 residential buildings and 19000 non-residential buildings have been completed. 85% of them have been built by the private sector.[5]

The development of the building industry in the last decade is best described by having a look at the number of building permits and apartments completed (see in chart above).

It is easy to see that the number of building permits leads the number of completions and that building activity has constantly gone down since the mid 1990ies. The decrease of construction activity also becomes evident when looking at construction investments: From a peak in 1994, when investments in construction totaled € 264 bn, it went down almost constantly to € 224 bn in 2001.[6]

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5 Source: Central Statistical Office of Poland (2002), p. 404.

6 Inflation adjusted, in 1995 prices. Source: Fed. Office of statistics, Fachserie 18.

2.2. German market for Housing Finance – Instruments and Institutions

Housing finance in Germany, as well as commercial property finance, is characterized by long-term financial arrangements. Mortgage loans[7] have an original maturity of up to 25-30 years[8]. They can have a floating rate or a fixed interest rate, usually over 5 or 10 years ("Zinsbindung"). After that time interest rate conditions are re-negotiated. The government has created two types of specialized banks – mortgage banks and the Bausparkassen (building societies) – with the aim to attract funds for housing finance to promote saving and construction activity. The housing finance system is seeking to mobilize (long-term) funds from broader capital markets for mortgage lending through mortgage banks.

Mortgage loans can be obtained by different institutions, such as commercial banks, mortgage banks, insurance companies, building societies etc. There are various shapes of the loans granted in Germany. The most important are annuity mortgages, redemtion loans (*Tilgungsdarlehen*), redemption-free mortgage loans (*Festhypothek*), contract savings scheme (*Bausparvertrag*), capital- and risk life insurance contracts.[9]

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7 A *mortgage loan* is a loan to finance the purchase of real estate. The borrower (mortgagor) gives the lender (mortgagee) a lien on the propoerty as collateral for the loan. A *housing loan* is a loan that relates to a housing project. Because almost always housing loans are secured by mortgages at least in part, they are the same as mortgage loans.

8 see Hardt (2002), p. 164.

9 **Annuity mortgage**: With an annuity mortgage the borrower pays off a constant monthly amount of money that contains both an interest- and a redemption part. During the life time of the mortgage the repayment share increases as the interest share decreases because of the redemption payments.

Redemption loan (*Tilgungsdarlehen*): Here the monthly redemption money is kept constant. Because the interest paid every month goes down, the monthly installments ease off, which consist of interest and redemption.

Redemption-free mortgage loan (*Festhypothek*): With a redemption-free loan the borrower doesn't have to pay any repayments during the payoff period. Due to the terms of redemption only interest is paid during the loan period. The redemption is done at the maturity of the loan in one amount, very often with the payout of a life insurance- or Bauspar contract.

Home building contract savings scheme (*Bausparverträge*): In a contract savings scheme the investing member saves money over a multi-years period at a low interest rate. Afterwards he has the right to draw a loan at a defined low interest rate. The volume of the loan is dependent on the savings.

Capital life insurance: One reason for entering a capital life insurance contract can be a mortgage endorsement. The maturity of the insurance contract equals the maturity of a mortgage loan. With the payout of the capital life insurance the principle amount of the mortgage loan is paid back at

Various kinds of financial institutions can play a role in the housing finance market. These institutions can be divided largely into specialized institutions (mortgage banks, Bausparkassen) and non-specialized institutions that are analyzed below.

Of course, mortgage banks and other financial intermediaries engaged in mortgage lending can take on loans from the inter-bank market, from supernational agencies and the state. But eventually a system of housing finance has to rely on capital from the public. In Germany various instruments have developed of raising financial resources. These can be placed into two broad categories: Deposits from the public and capital market funds. Retail deposits are still the primary financial resources for housing loans, even in advanced markets countries. For example, in the EU countries, deposits account for 62% of the funding of mortgage loans.

2.2.1. Mortgage banks (Hypothekenbanken)

Mortgage banks, such as those developed in Germany, but also in Austria, Scandinavia, and other continental European countries, are among the most common types of specialized institutions. German mortgage banks are credit institutions governed by private law that finance the purchase of residential and commercial property.[10] They grant loans on domestic properties and also public-sector loans. Mortgage banks are providers of long-term finance and support consumers as well as commercial investors on the German market. Most commonly mortgage banks give loans to house-buyers. German mortgage banks are limited to these credit markets. A mortgage is the transfer of an interest in real estate to someone else as security for a loan. Mortgage banks are subject to tight regulation, especially regarding their investments, but are in turn given the exclusive right to issue mortgage bonds.

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the end of the loan period. The loan is a redemption-free mortgage loan (see above). Instead of monthly redemption payments money is paid into the insurance contract.

Risk life insurance: Using a capital life insurance contract to pay back a mortgage loan very often is not very profitable, because the yield on the insurance contract is lower than the interest of the mortgage loan. A pure life insurance policy can be used instead to secure a mortgage loan against death of the borrower.

10 see Hartmann-Wendels et al. (1998), p. 37.

Table 2: Loans of German mortgage banks, 2002

loans € 830 bn		
mortgage Loans 368 € bn		public sector loans € 462 bn
residential loans € 227 bn	commercial loans € 139 bn	

Source: Association of German Mortgage Banks.

The volume of new mortgage loans granted (€ 45.9 bn in 2001, residential loans € 19.7 bn) has been slightly declining during the last years due to the weak state of the construction industry.

Though they have historically financed their loans with retail deposits, they are now closely linked with mortgage bond financing. Mortgage banks issue *Pfandbriefe* (German Mortgage Bonds) on the basis of the mortgages acquired as well as public-sector bonds (*Kommunalschuldverschreibung*). The cover assets serve in the first instance to satisfy the Pfandbrief creditors who, in the event of a mortgage bank going bankrupt, have a preferential right. A mortgage bank's insolvency has not occurred since the Mortgage Bank Act (HBG) was introduced over 100 years ago. If the claims cannot be satisfied on time because the cover pool is insolvent, separate insolvency proceedings would be opened. Mortgage banks, all subject to the specialist banking principle stipulated in the German Mortgage Bank Act, must limit their loan business to a few business fields of which housing finance represents one of them.

Mortgage banks and also -bonds in Germany are supposed to be very safe financial institutions because they have to follow two principles:

➔ Cover principle: Mortgage Pfandbriefe have to be covered at all times by mortgage loans at least equal to the nominal value of all outstanding issues and yielding at least an equal interest yield.[11] In the case of Public Pfandbriefe, cover assets are public-sector loans; in the case of Mortgage Pfandbriefe, they are first-charge mortgages.

➔ Matching principle: A concept of assets and liabilities, in which secure loans are specifically matched to the financing of bonds.

11 § 6, German Mortgage Bank Act.

The mortgages must be recorded by the bank individually in a register.[12] Securities refer to them individually.

The rationale for the creation of mortgage banks has been to build a very stable type of banks, that can be supervised more easily than universal banks, to give banks an incentive to grant mortgage loans and eventually to channel private savings into the housing market. This is done by the issuance of mortgage bonds. In practice, the dominant mortgage banks became subsidiaries of larger commercial banks.

Increasingly the German mortgage banks do business in foreign countries. The share of the foreign business in 2000 was 20% of new mortgage loans. The business volume in non-German EU countries has doubled within the last 10 years.[13] With the amendment of the German Mortgage Bank Act mortgage banks are allowed to further expand their business to other countries. They begin strengthening their non EU business, especially in the G7 countries USA, Canada, Japan, and other European OECD-member states as Poland, the Czech Republic, Slovakia and Hungary.

Mortgage banks in Germany are required to have a minimum equity capital of € 25 m and are not allowed to take deposits and to carry out money transfer for clients. The German mortgage-bank law[14] sets the loan-to-value threshold[15] at 60%. That means no more than 60% of the value of a property can be handed out as loan by a mortgage bank. Analyses show that at 80 percent loan-to-value ratios mortgage credit risks are much more significant, particularly in the commercial property sector.[16] Even a 60% ceiling does not eliminate the risk of final banking losses. Consequence: In transition countries, especially when valuation standards are not secure enough, 60% are recommended to be the loan-to-value-ceiling.

2.2.2. Bausparkassen (building societies)

The second type of specialized institutions are the Bausparkassen, developed especially in Austria and Germany. Bausparkassen specialize in running these countries' contract savings systems.

12 § 22, German Mortgage Bank Act.

13 Source: Association of German Mortgage Banks.

14 §§ 11-12 Hypothekenbankgesetz (German mortgage bank law).

15 Loan-to-value ratio: loan devided by the value of the mortgaged estate.

16 see Chiquier (1999), p. 17.

Bausparkassen are „contractual housing savings schemes". That means they are financial institutions that do little more than to take in local mid-term savings and hand them out as long-term loans for house purchase (mortgages, *Bauspardarlehen*). The savings period of Bauspar contracts runs at least 7 years in order to be eligible for a government bonus.[17, 18] When savings are withdrawn from the savings contract government bonuses have to be paid back, so this happenes very rarely. Potential interest-rate and liquidity risk for the Bausparkassen is very limited.[19] The Bausparkassen system is a closed system in which mortgage loans from specialized housing banks are exclusively funded from the savings of future would-be borrowers. While contract savings can also be offered by non-specialized lenders such as commercial banks, Bausparkassen are the only institutions that operate the closed scheme.

The saver promises to invest regularly a certain amount of money, that earns an interest rate below market level. On the other side the saver can take a low-interest mortgage loan after a definite time period. Bausparkassen guarantee a loan to those that fulfil the savings contract. The Bausparkassen loan is junior to other mortgage loans, what can be an advantage when applying for other potential loans. In the German system of housing finance the principle loan is made by a mortgage bank with supplemental financing from the Bausparkassen in a combined loan package. Bausparkassen loans are treated as owned capital and don't load on the loan-to-value ratio of the mortgage banks.

The Bauspar system has been invented in Germany in 1924 and has been bound to Germany and Austria as the only countries for many years. The German Building Societies Act (*Bausparagesetz*) regulates what purposes the saver can take the loan for. Since 1991 German Bausparkassen are allowed to expand their business to foreign countries. It regulates that Bausparkassen are permitted to invest their surplus of savings into mortgage bonds, so that savings are recycled into housing finance. Building Societies are allowed to have an loan-to-asset ratio of up to 80%.

An overview of the Bauspar-business volume gives the following table:

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17 Minimum savings periods offered by German Bausparkassen are often 18-24 months.

18 see chapter "Home building subsidies and social housing".

19 Savings can be withdrawn within the 7 years period without losing the government bonus when the capital is used for housing. For the saver this doesn´t make much sense because before fulfilling the multi-year savings contract no mortgage loan is given.

Table 3: Volume of the Bauspar business in Germany, 2001

Bausparkassen	2001
No. of Bauspar contracts	32.6 m
New savings contracts in 2001	3.4 m
Bauspar deposits	€ 97.5 bn
Mortgage loans	€ 98.1 bn

Source: Statistisches Bundesamt.

The German market for contractual housing savings schemes consists of 17 private building societies and 11 state building associations (*Landesbausparkassen*). The market is dominated by 3 groups: *Schwäbisch Hall* (controlled by co-operative banks), *BHW* (controlled by the unions and public employees ass.), *Wüstenrot* (stock company).

2.2.2.1. Advantages of the Bausparkassen system

Housing linked contract savings expand the pool of potential borrowers because they encourage families to save for home purchase. The closed scheme is considered beneficial in isolating the entire system (and the saver/borrower) from interest-rate fluctuations, though it may suffer from liquidity problems in the absence of a steady expansion of the business. In particular, when market interest rates rise, the scheme is likely to face difficulty in securing enough deposits to finance loan demands. Proponents of contract savings schemes suggest further advantages: The credit records of savers/borrowers can be established by the system itself during the saving period. From a macroeconomic viewpoint, a contract savings system encourages people to undertake long-term savings and to increase the aggregate savings level in a country. The system can be regarded as a transparent basis for subsidies, as the subsidy is directly allocated to individuals for housing.

These merits can be important for transition economies, which still face greater macroeconomic uncertainty (e.g. interest fluctuations) and difficulty in getting credit records for individuals.

2.2.2.2. Disadvantages of the Bausparkassen system

In comparison with other investments contract savings schemes are not very lucrative. There is one rigorous analysis of the efficiency of the price of loans.[20] It found that Bausparkassen loans in Germany are priced about 13% higher than those originated by mortgage banks after adjusting for other factors. To keep the system attractive the government provides bonus payments on the amount of each new savings. There is no attempt to target the savings bonuses to lower income families other than through the limitations on the maximum amount of savings permitted and the taxable income.[21]

Due to their long-term nature, contract savings schemes may not be flexible enough when faced with a changing economic environment. Moreover, to attract savers, contract savings schemes normally need government support in the form of interest-rate subsidies, which are likely to create substantial budgetary burdens. The schemes may also cause political problems, inasmuch as the required build-up during the initial savings period makes immediate results on housing impossible.

Some participants argued that Bausparkassen might not be suitable for transition countries until those countries manage to stabilize their inflation rates. Others pointed out that the system worked adequately in Germany even when the economy was unstable before and after World War II.

2.2.3. Non-specialized institutions and market share

While specialized institutions are widespread, non-specialized ones, such as commercial banks, savings banks, cooperatives, life insurance companies and pension funds, can be important players in the housing loan market. In EU countries, non-specialized institutions account for more than 60% of mortgage markets, out of that about 40% are held by commercial banks. The strengths of non-specialized institutions include flexible risk management using various types of financial products as well as cross-selling. In some European countries, it was reported, mortgage loans are made at a loss, compensated by profits from other activities such as credit-card businesses supported by long-term relationships with the mortgage borrowers. The following table shows the market share of different financial institutions in the German mortgage market.

20 see Diamond (1992), table 7.2.

21 The wealth of a family is irrelevant for the eligibility.

Table 4: Market Share: Residential Loans by Type of Lender in Germany

Outstanding (€ bn)	31.12.2000	%
Mortgage Banks	232.5	23
Regional Banks	91.4	9
Foreign Banks	0.0	0
Big Commercial Banks (Frankfurt)	62.0	6
Landesbanken	81.3	8
Savings Banks	275.3	27
Cooperative Banks	151.1	15
Building Societies (Bausparkassen)	99.2	10
Specialist Credit Institutions	340.0	3
Total	**1,030.8**	**100**

Source: Association of German Mortgage Banks, Deutsche Bundesbank.

For decades the mortgage banks play an important role in the housing finance. In 2002 alone the 19 member institutions of the Association of German Mortgage Banks (VDH) granted loans amounting to € 39 bn.[22] Mortgage banks rank second after the savings banks (market share: 27%) among the housing financiers with a share of approx. 23%. The other banks offering housing finance - building societies, credit cooperatives, large banks, regional banks and *Landesbanks* - are subordinate in importance.

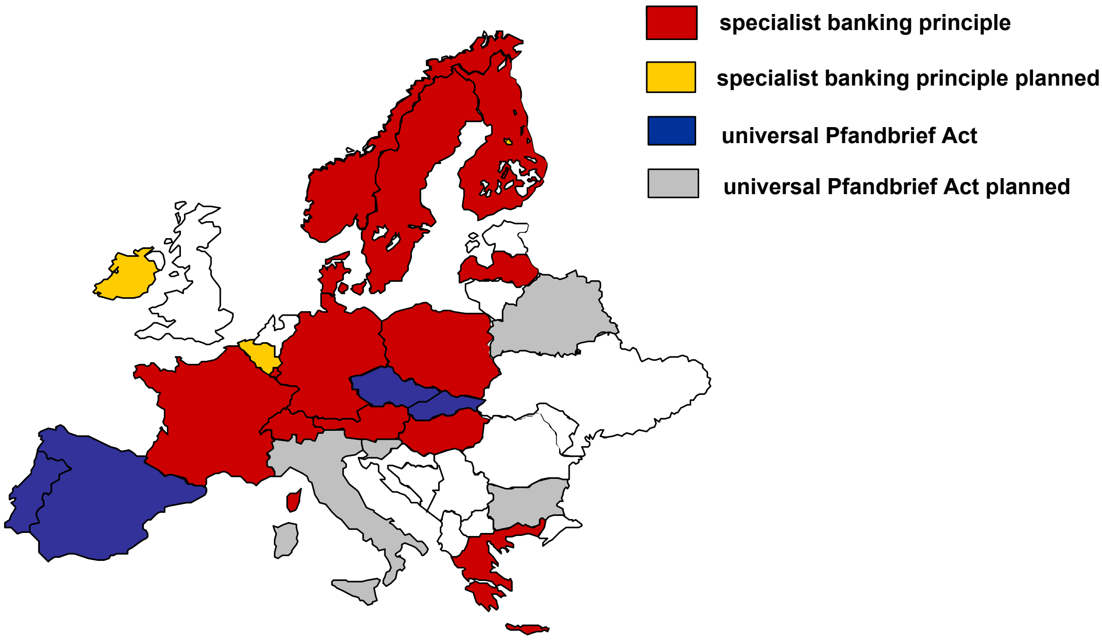
The mortgage banks have a higher market share when analyzing mortgage loans secured by *commercial* real estate. Mortgage banks lead the market with a market share of 50.4 % followed by savings banks (18.2%). In the field of public sector loans they also lead the market with a share of more than 50%, followed by the state-owned Landesbanken.[23]

22 Association of German Mortgagte Banks.

23 Source: Association of German Mortgage Banks.

2.2.4. Mortgage bonds

Chart 2: Specialist banking principle and universal Pfandbrief Act



Source: Verband deutscher Hypothekenbanken

The traditional way to raise funds from the capital markets for mortgage loans in Germany is the mortgage bond (*Pfandbrief*). Bond financing has the merit of addressing the maturity mismatch associated with long-term housing loans.

A mortgage bond is a security giving the holder of the bond a claim against the issuer and enjoying a degree of special security because it is backed by mortgage loans. In Germany mortgage banks have the exclusive right to issue mortgage bonds (specialist banking principle). This differs from other countries in Europe that have a universal Pfandbrief Act. The legal situation in Europe is illustrated in the map above.

Mortgage bonds issued by mortgage banks have a long history in Europe. Currently, Germany has the biggest market, amounting to € 930 bn. Mortgage bonds are a very safe asset class because the mortgage loans of a bank are used as a collateral. This additional security reduced the risk to the bondholder significantly and therefore he will require a lower risk premium compared to similar bonds not backed by mortgages. Mortgage bonds have an interest spread over government bonds of just 20 to 50 basis points and thus are an asset class almost as safe as government bonds. Mortgage bonds are the biggest segment in the German- and

European bond market. The size of the market exceeds the volume outstanding of government bonds. Worldwide it's the 6th biggest bond market.

Mortgage bonds in Germany share certain characteristics with other countries (Austria, Denmark, France, Spain):

- They are issued by credit institutions
- are subject to special supervision
- have sufficient cover for the liability deriving from the bond
- have a privilege for bond holders in case of the bankruptcy of the issue.

These bonds are held by private as well as institutional investors (banks, pension funds, insurers). Insurance institutions can invest up to 30% into mortgage bonds. Mortgage bonds are qualified as eligible securities for open-market transactions with the European Central Bank.

The following table shows the volume of bonds outstanding issued by German mortgage banks. It corresponds with the asset side of the mortgage banks

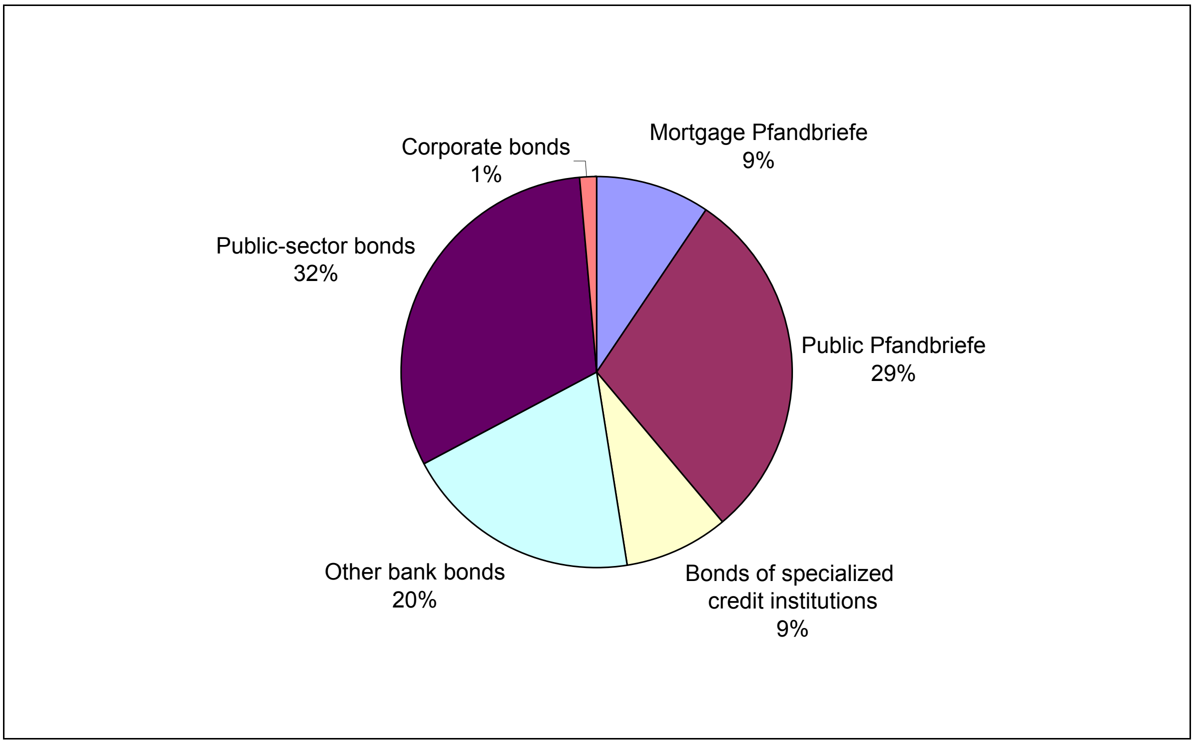
Table 5: Bonds outstanding (German mortgage banks, 2002)

Bonds Outstanding			
€ 702 bn	Mortgage Pfandbriefe	Public Pfandbriefe	Uncovered bonds
	€ 209 bn	€ 432 bn	€ 61 bn

Source: Association of German Mortgage Banks (VDH-Verband deutscher Hypothekenbanken).

In 2002 the volume of bonds outstanding of the members of the Association of Mortgage Banks declined by 4.9%, due to the weak construction industry and the falling house price index. € 40.8 bn in mortgage bonds have been issued in 2002. A special segment are the so called Jumbo-sized Pfandbriefe, bonds with at least € 500 m in volume. Out of € 702 bn bonds outstanding in total in 2002, € 402 bn have been Jumbo Pfandbriefe.

Chart 3: Volume outstanding in the German bond market 2002



Source: Deutsche Bundesbank

German mortgage banks have considerably promoted mortgage bonds among international investors (notably American, Japanese and French) and therefore expanded their traditional base of national investors. In order to secure their sound position in international capital markets, German mortgage banks issued German Mortgage Bonds (or Pfandbriefe) in the EU-bond market and developed Jumbo-type mortgage bonds, low-risk bonds meeting special requirements as to size and trading volume.

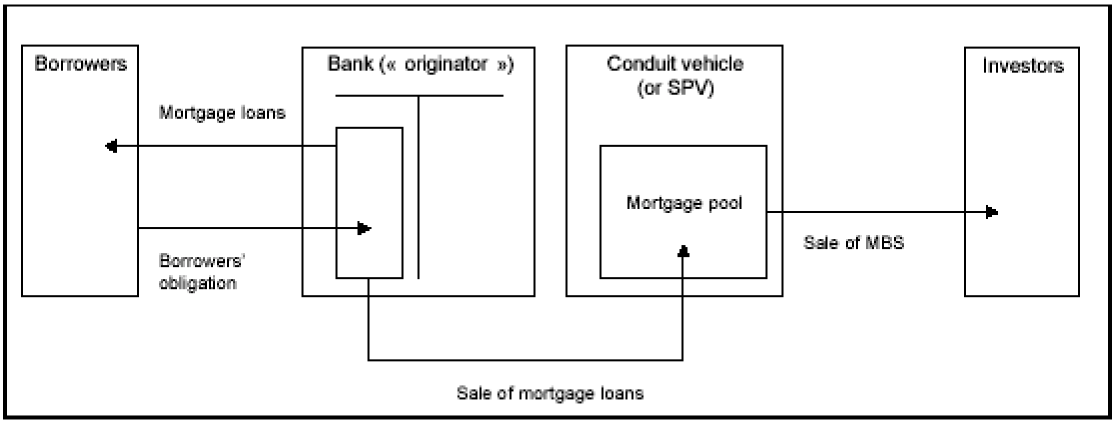
Mortgage bonds are gaining attention as an important funding source for mortgage loans, not only in Western Europe but in Central and Eastern European countries. Mortgage bond legislation has been introduced in the Czech and Slovak Republics, and in Hungary, Poland and Latvia, and has been drafted in Estonia, Bulgaria and Russia.

2.2.5. Mortgage backed securities (MBS)

Mortgage banks can issue other capital market instruments like any commercial bank (bonds, notes, etc.), of course. One special capital market instrument related to housing finance are mortgage backed securities (MBS):

MBS are issued by mortgage banks and backed by mortgages, that are on the institution's balance sheet. The difference to mortgage bonds is, that the assets are placed in trust (special purpose vehicle) and the investor can look only to them for repayment of its interest and principal. Thus, MBS are not as safe as mortgage bonds for investors. The reason banks originate MBS is to sell the risk of mortgage loans to default and to clear the balance sheet of mortgage loans. Expensive regulatory capital (equity capital) can be saved and new mortgage loans can be granted. In Europe MBS trade with average margins of 75-100 basis points over government bonds.[24]

Chart 4: Mortgage Backed Securities



Source : Based on Prof. Dr. Klaus Spremann & Dipl.math.oec. Klaus Kränzlein (1996)

In contrast to mortgage bonds, mortgage-backed securities have not been popular among European countries, compared with the United States. Some reasons for this were suggested, including a less favorable weighting in capital requirements, lack of the government-backed agencies found in the United States, lack of standardization, the existence of competitive on-balance sheet funding instruments, and so on. No issues of mortgage-backed securities have been reported by transition countries.

But this is changing slowly, as more investment banking products are adopted to the real estate markets. MBS are becoming more popular in Germany. In 2000 RheinHyp has been the first issuing a commercial mortgage-backed security with a volume of € 1.5 bn.

24 See Hardt (2001), p. 16.

Experts see MBS and other investment banking instruments to be a growing market for housing finance in Germany in the future.[25]

2.3. Home building subsidies and Social Housing

The German government has a complex tax- and subsidy system in place that directly affects the housing market. The objective is to provide poor families with affordable housing, to increase homeownership, that is traditionally rather low in Germany, and to increase the volume of new construction. The German Government has a wide range of subsidies available for supporting home purchase.

Subsidies

➔ Tax exemptions: Allowing the depreciation of the purchased house to be deductible from taxable income.

Personal income tax benefits: Deduction of interest payments on home purchase mortgages from the income subject to tax. Sheltering of capital gains realized on sale of the unit from tax after a holding period of 10 years.

➔ Down payments subsidies (*Eigenheimzulage*): Since 1996 subsidies for new homes are given to households, independently of their income. The government pays 5% of the investment annually over a 8 years period, with a maximum of € 2556 per year. When buying an old house or apartment the subsidy is only half (2,5% annually). Individuals (married couples) with an income of € 40904 (€ 81807) or below can qualify. Additionally € 767 are paid annually for children (*Kinderbaugeld*).

➔ Interest bonus on savings when part of a housing purchase-related contract savings scheme (*Bausparprämie*). Households with low and medium taxable income (€ 25600 for singles and € 51200 for married couples) can apply for the bonus. The bonus is 10% of the annual savings with a maximum of € 512 per person. This form of subsidy has proven to be rather expensive, though. The system targets subsidies poorly.

➔ Employees can obtain an extra bonus (*Arbeitnehmersparzulage*) when they put their property creating savings into a housing

25 Dr. Karsten von Kölle, CEO of EuroHypo and president of the German Ass. of mortgage Banks in a presentation „Strategies for Mortgage Banks in Europe", held at Potsdam University, Jan. 2003.

related contract savings scheme. Eligible are individuals with an income of less then € 17900 and € 35800 for married couples. The bonus is 10% of the annual savings with a maximum of € 480.

- Low interest mortgages from the federally-owned bank "Kreditanstalt für Wiederaufbau" for the purchase of owner-occupied apartments and houses. Long-term loans can be obtained (max. € 100000 and 30% of purchase costs) with 1-5 years redemption-free. The loan is junior to other loans and its interest is 25-40 basis points below market rate.[26]

Government financed social housing

The role of public financed[27] low-cost housing has diminished in the last years in Germany. Public expenditure on housing is 0.9% of GDP.[28] In the federal budget € 230 m are set aside for subsidizing housing projects. In the former West-Germany the number of permits for socially funded apartments had been 111000 in 1993. The number has gone down continuously by almost 70% and stabilized within the last two years at about 35000 for both parts of Germany.

In the past annual down-payments and low-interest mortgages were given to individuals and institutions that built apartment houses. A maximum rent per m^2 was fixed that couldn't be exceeded. This policy proved to be very expensive and is even now, after stopping these subsidies, a burden for the states budgets.

In the last years housing programs have been modified towards owner-occupation of houses and condominium apartments instead of rented apartments. Only 37% of public funds are taken to promote the construction of rented apartments. It is estimated that the stock of federal funded apartments with administered prices is 2-2.5 mill.

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26 In May 2003 KfW loans with a 5 (10) years fixed interest period had a yield of 4.16% (4.94%). This compares with a market rate of 4.5% (5.19%). (data from Deutsche Bundesbank).

27 Federally funded and funded by the German Bundesländer (states).

28 see ECB (2003), p. 39.

2.4. Overall assessment

The German housing finance system of specialist banks in housing finance has been successful in terms of availability of housing finance. Deposits and capital market funds have been successfully channeled into the housing market. Housing related assets form a major share of the markets.

The main characteristics of the German system are the reliance on specialized banks (mortgage banks, Bausparkassen), a strong regulation and supervision of financial institutions in general and mortgage banks especially and long-term credit arrangements. The Mortgage Banks Act limits the business acticity of mortgage banks but gives them the exclusive right to issue mortgage bonds.

Advantages of the special-banking principle in Germany can be seen in its

- ➔ transparency,
- ➔ safety and stability,
- ➔ homogenity and
- ➔ liquidity

Mortgage banks are very transparent and safe because they are restricted in their lending activities. A sign of stabilty is the fact, that not a single mortgage banks has gone bankrupt in the last 5 decades. Correspondingly no mortgage bond has ever defaulted. The legal framework enforces a homogenous quality of all mortgage bonds and a high safety standard. That in turn leads to low yield spreads over government bonds and favorable refinancing conditions for banks.

The German system can be regarded as efficient because of its low costs. The issuance of mortgage bonds allows lenders to obtain funding at reduced borrowing costs in the capital market. It is therefore a cost efficient method of funding a mortgage loan. Long-term capital for housing finance can be obtained without major risk premia on the basis of capital market funding. Fixed interest contracts have promoted the stability of the German real estate market. Investors find a very safe asset class in mortgage bonds.

Contract savings schemes offer a possibility to the public to save regularly and after fulfilling the savings period to be entitled to obtain a junior mortgage loan. Whether the Bauspar system is beneficial is an open question. Critics point out, that the system only survives because of government support and is otherwise not very profitable for investors.

Another point of criticism is the system of social housing. The downpayment subsidies are expensive and burdening the governments budget with € 8.5 bn in 2002. The tax/subsidy regime tends to favor owner-occupiers rather than landlords and the purchase of new buildings rather than existing ones. The system should become more neutral with respect to different types of assets. Favoring new buildings over existing ones is not necessary because an expansion of the building stock has no priority anymore.[29]

Several German states (*Bundesländer)* like Berlin made rather bad experiences with social housing projects. Instead of supporting needy individuals, housing objects have been subsidized for many years, although tenants had become independent of government help in between. Controlled rents discouraged private investment in the sector. Low rents weaken renter's incentive to spend more money to become homeowners. Due to tax exemptions and subsidies, especially in the New Länder, there has been too much and too expensive building activity.[30] On the other hand the level of federally financed low-cost housing is regarded as too low by many housing associations who expect a problematic situation in the local low-cost housing markets in the metropolitan areas.[31]

3. Housing Finance in Selected Other Countries

3.1. Different types of housing finance systems

Stephens (2000) identifies three models among the various housing finance systems in advanced market countries:

1. The first model is the Southern European model (Spain, Italy and Greece, for example). In these countries housing finance markets are characterized by very high levels of owner occupation (80%)[32], caused by constrained tenure choice among e.g. underdeveloped rental sectors. Typically private rental

29 See DIW Wochenbericht 22/2002.

30 see DIW Wochenbericht 22,2002, p. 355.

31 see GdW (Bundesverband deutscher Wohnungsunternehmen, Association of German housing companies): Wohnungswirtschaftliche Daten und Trends 2002/2003, Hamburg 2002, S. 31/32.

32 see ECB (2003), p. 9.

sectors were weakened severely by decades of rent controls, the impacts of which were exacerbated by periods of high inflation. A notable feature of the Southern European countries is that significant social rental sectors were never developed, and are of little importance. In part this reflects the distinctive welfare regime in these countries, which some have labeled "rudimentary" but which is more accurately characterized as "family-based." In other words, the state has traditionally played a relatively minor role in welfare, which instead has been provided by extended families.

2. The second model is the Homeowner model, which can be typically found in the Scandinavian and English-speaking countries, with owner-occupation ratios of 60% to 70%. This type of housing can be characterized by high transaction levels and more favorable credit facilities, supported by highly liberalized financial markets. In Britain e.g. the owner occupation ratio is 68% compared to 40% in Germany.[33] Building Societies in Britain are on the asset side like German mortgage banks and give mortgage loans. On the liability side they are like savings institutions. And until the mid 90ies their legal status was similar to cooperative banks.[34]

3. The Balanced Tenure model is the third model, in which a relatively larger segment of the population tends to live in rental residences and the owner-occupation ratio is as low as 40% to 50%. Housing finance markets in Germany and Austria are examples of this model. In these countries, housing finance systems are rather specialized, highly regulated and integrated, which creates more stable but less active markets than those in countries featuring the Homeowner model.[35]

This short characterization shows that the housing type, e.g. the owner-occupation ratio, is strongly influenced by financial systems. So the choice of a housing finance system embodies the choice for a housing system.

3.2. USA - Canada

In the United States (the world's largest housing finance), the primary mortgage market has been dominated by deposit-taking

33 See ECB (2003), p. 9.

34 see Schäfer (1997), p. 832.

35 see Association of German Mortgage Banks (2002b), p. 43.

institutions (thrifts and more recently banks) and mortgage brokers. After origination, mortgages are either held in portfolio or sold into the secondary market, where they are pooled and repackaged as mortgage-backed securities (MBS). Three government-sponsored enterprises (GSEs) -- Freddie Mac, Fannie Mae and Ginnie Mae -- are the primary agents in the secondary market. The first two agencies finance mortgage loans by issuing mortgage-backed securities. Ginnie Mae, part of the US Department of Housing and Urban Development, provides a full faith and credit guarantee on pools of loans guaranteed by the Department of Veterans Affairs or insured by the Federal Housing Administration, but does not itself issue securities. Secondary markets in the United States account for roughly half of outstanding home mortgage credit and in recent years have accounted for some three-fourths of the net increase.

Distinctive for the American mortgage market is a subdivision into two segments – the primary and the secondary mortgage market. This subdivision allows an unbundling of the four major aspects of mortgage lending: funding the mortgage, originating the mortgage, servicing it and taking the risk of default. This is most evident on the investment side. Investors in mortgages need not be involved in originating or servicing mortgage loans, or dealing with credit risk. Pools of mortgages (mortgage-backed securities) now trade in national and international markets, almost as efficiently as Treasury securities.

In the primary market a large number of small scale mortgage originators sell or act as agents for a relatively small number of mortgage brokers. The mortgage brokers sell mortgages into the secondary market and either keep the servicing or sell servicing rights to other mortgage brokers. The three secondary market institutions and mortgage insurers are primarily in the business of purchasing mortgages and bundling them into easily tradable securities. They take on credit risk and manage the risk of default. The mortgages can be financed with homogenous debt in the capital markets, and investors can buy the mortgages as relatively homogenous mortgage-backed securities.

The last function has become further unbundled with the advent of derivative securities (REMICS, CMOs, etc.). This separation has helped to lower mortgage rates. About half of all mortgages now end up in secondary markets, where they or their derivatives compete with a wide range of securities in the capital markets.[36]

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[36] see van Order (2002), p. 183.

Table 6: Differences between USA and Continental Europe

USA	Continental Europe
Residential mortgage loans are almost exclusively re-financed from non-bank financial institutions (Fannie Mae, Freddie Mac), that are government sponsored and not subject to Basle II	Residential and commercial mortgage loans remain on the balance sheets of banks.
Commercial mortgage loans are securitized and sold to non-banks on the secondary market. They do not remain on the bank's balance sheets.	Securitization very low
Credit risk is assessed dominantly by the customers creditworthiness	Credit risk is mainly evaluated by the value of the collateral
Banks are mainly in the short-term and high risk development business. Long term financing is provided by institutional investors like pension funds and insurance companies.	Banks are mainly in the long-term, low-risk business of originating, servicing and keeping loans. No secondary market.

Source: Ass. of German Mortgage Banks (2000b), S. 43.

Specialized banks and institutions have not been satisfactory. They were undiversified and didn't manage risk properly (Savings & Loan). State housing banks often became inefficient.

Canada gives a success-story of how other kinds of collateral can prove useful in credit risk management when necessary. Mortgage insurance or use of a counter-risk pool of funds can be beneficial in mitigating credit risk. A public mortgage-loan insurance program established in Canada in the early 1950s has helped one in three Canadians acquire a home. Borrower education is an important guaranty. Maintaining contact with borrowers by providing occasional financial advice not only can help borrowers understand the value of payments but is an effective way to reduce the default risk.

3.3. Poland

Poland started the transformation process with a state savings bank that was not profit-motivated. Housing finance then could be characterized by a very simple loan structure, there was no collateral based lending and the legal basis was underdeveloped. Before the transition Poland didn't employ the equal payment, self-amortizing annuity mortgage that is standard in Germany.

Poland has chosen to follow the German model of specialized mortgage banks and adopted both types of German specialized banks, mortgage banks and Bausparkassen. Its first mortgage bank was established with participation of a German bank. Poland introduced a German-style Bausparkassen system, where mortgage loans are financed by the savings of future would-be borrowers. Lending is carried out by Bausparkassen organizations. The German Bausparkassen promoted their system heavily in Poland.

In 1990 interest rates of existing long-term loans had to be revised to market level. To soften the consequences for borrowers the government had to pay most of the increased interest payments. Even today a large part of the national housing budget is used for addressing this problem. The dominant lender in Poland today remains the former state savings bank, now a commercial bank.

In 1993 Poland established the Mortgage Fund to act as a refinancing facility initially using funds lent by the World Bank and USAID. However because of the bank's high liquidity during this period, they were reluctant to draw on the funds resources.

As in Germany mortgage bonds are issued to reduce liquidity and interest rate risks of mortgage banks. Since 1997 long-term-bonds (mostly 10 year ones) in Poland faced absorption problems. The creation of a long-term mortgage bond market proved difficult. No wonder that mortgage banks in Poland are few. It proved to be useful to have a foreign partner bank, when national capital markets are limited. It is difficult for mortgage banks in Poland to compete with commercial banks because their cost of deposits is very competitive with those in the capital markets.[37]

During a start-up period mortgage banks in Poland may remain exposed to interest rate risk, since they initially have to face a duration mismatch between loans and bonds when capital markets are imperfect. A solution also for other countries might be to relax the limits on alternative funding temporarily. Enhancing the funding flexibility can be reasoned in the presence of adverse situation of bonds markets. Otherwise an over-capitalization could be an un-wanted consequence.

For Poland it was recommended to increase the loan-to-value ratio for mortgage banks temporarily from 60% to 80% in order to finance the ineligible portions of loans, particularly loan-to-value ratios between 60 and 80%, what had become a commercial necessity because of the competition of other lenders.

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37 see Struyk (2000), p. 27.

Poland today experiences problems with its mortgage law. One problem is that proceeds from the sale of property securing a mortgage loan are first directed to the state to satisfy unpaid taxes for example. Because the state does not have to register its claim, a bank cannot know the validity of its mortgage claims.

As in Germany evidence is overwhelming in Poland that the Bausparkassen schemes "are very inefficient use of public resources."[38] They are an expensive form of government subsidies and target subsidies poorly. Moreover they result in limited home purchasing power for participants and they seem to result in little household savings.

In Poland most of the policies for developing mortgage finance and promoting home ownership are inefficient. Total spending on homeownership programs is 1,3% of GDP in Poland. In Poland on average 13% of income was spent on housing (vs. 21% in Germany).[39] The tax subsidies accrue to richer families, are poorly targeted for influencing home ownership decisions, and are extremely expensive. In addition the evolving structure of mortgage lending in Poland, with its specialized institutions, is less efficient than the universal bank model.[40]

In summary, the housing finance system in Poland is clearly under development. Commercial banks will remain the dominant lender. This assumes that the government follows through with its plans not to subsidize the Bausparkassen. Poland may eventually move from a commercial bank-dominated system to one in which mortgage banks and contract savings plans play a bigger role, if not the main one. The Polish system will be somewhat different from the German system, under which the principle loan is made by the mortgage bank with supplemental financing from the Bausparkassen in a combined loan package. The Bausparkassen will be bigger loan originators than the mortgage banks for at least the next years. Because their loan amounts are modest, the impact on housing affordability will be correspondingly modest. Although mortgage loans and Bauspar loans are often combined in one package, mortgage banks as well as Bausparkassen can be introduced without each other.

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38 see Diamond (1999).

39 see Struyk (2000), p. 12 ff.

40 see Worldbank (2001), p. 28.

3.4. Lessons from other Eastern European Countries

Russia has a very simple system of housing finance. Mortgage loans are being made by private commercial banks. A secondary market institution, the Agency for Housing Mortgage Lending, purchases loans from the banks, thereby relieving bank's liquidity problem.

The outstanding volumes of mortgage bonds in Eastern Europe remain trivial, however, with the exception of the Czech Republic, which has carried out 17 issues, amounting to € 520 mill. It is largely a condition for a bond market that long-term savings be institutionalized by, for example, pension funds and life insurance. This is, however, not the case in most transition economies.

A negative example for taxation policy gives the Czech Republic: Income-tax exemptions for the holders of mortgage bonds (but not for government bonds) lead to mortgage banks having an advantage in re-financing. This may exclude those banks not licensed to issue mortgage bonds from the mortgage lending business. Also the Czech Republic experienced difficulties to exclusively rely on emerging bond markets at least during a transition period.

The question whether mortgage banks in transition countries should be specialized banks cannot be easily answered. Specialized banks are more transparent to supervisory bodies, rating agencies and investors. But on the other hand it can reduce the profitability of banks, concentrate risks in a single sector and limit access to funding sources. In transition countries these shortcomings would be worsened by higher start-up costs and the scarcity of capital. Specialization of banks does not necessarily enhance the safety of banks and of mortgage bonds. Specific supervision requirements can also ensure, that assets-liabilities matching is correct.

Czech issuers of mortgage bonds, in contrast to Polish ones, are not required to be specialized banks. Instead, they must be granted a specific license. Only a few banks have emerged so far that issue mortgage bonds and only between 13% and 17% of the funding of their mortgage portfolio has been through mortgage bonds. In Hungary mortgage banks have to be specialized, but so far only one public bank has been created.[41] In the Czech Republic and Hungary the mortgage bank laws include articles which permit higher ceilings

41 see Chiquier (1999), p.4.

of purchasable mortgage bonds than of ordinary securities for institutional investors (banks, pension funds).

The experience of Eastern European countries shows that specialized banks are not necessarily needed. Universal banks can fulfil the task of issuing mortgage bonds and granting loans to home buyers as well.

In summary Eastern European countries share several obstacles to the development of the housing finance markets:

1. Inactive property markets in Eastern European transition countries, which can be attributed especially to high prices.

2. The availability of borrower data remains limited in transition countries. Unreported income, for example, is often too important to ignore, but information is unreliable. Contract savings programs can be useful in this regard, as they create a credit record of regular payments.

3. Residents' income levels are not yet high enough, and only a small portion of the public is deemed financially eligible for loans.

4. Relatively high economic uncertainty in transition economies has discouraged both borrowers and lenders from arranging long-term credits.

5. The legal infrastructure for housing finance needs to be improved. Some relatively advanced countries, such as Poland, have set up the necessary legal and institutional infrastructure, but many others have not. An underdeveloped inefficient financial sector allows a huge gap between deposit and lending rates, effectively deterring households from acquiring housing loans.

4. Conclusions for Transition Countries

The government's ultimate goal is to develop a low-cost mortgage finance system. Risks should be allocated to those best able to bear them. From the German experience of housing finance as well as from other western and Eastern European countries many lessons can be learnt. The following 7 lessons of this paper correspond with four factors, that were identified as essential for a housing finance system to work efficiently by a OECD-workshop.[42]

1. **There is no universally applicable model of a housing finance system.** Although Germany as well as the USA have successful systems of housing finance, they shouldn't be copied to a transition country, because the framework is completely different. Nonetheless they may be very instructive. Instead, certain features of a system can be implemented (see below). Each national system results from macroeconomic conditions, the structure of the banking system, the organization of housing markets and the development of capital markets. These factors determine the path of between bank-based and capital-market based housing loan channels.

   Markets in transition countries differ from developed countries: Their financial system and housing finance system are small compared to both market potential and needs. Their legal basis is often underdeveloped.

2. One prerequisite for an efficient system of housing finance is the **development of an institutional frame** for national housing policy. The most basic infrastructure is a stable and regulatory legal system that supports mortgage transactions, as shown in Chapter 3. In many countries property rights in the real estate market have to be improved. This includes up-to-date cadaster (land register), effective property titling and the provision of prompt and fair arbitration procedures.

   A strong mortgage law minimizes the credit risk associated with lending and helps to develop the mortgage market. Credit and collateral law are a necessity. Obstacles to commercial lending for housing have to be removed and efficient foreclosure laws have to be provided, if houses are to be act as effective collateral. The possibility of eviction in the case of foreclosure when a mortgage loan is in default has to be a matter of course. Useful elements in credit risk management can be the availability and use of other kinds of collateral when necessary, e.g. mortgage insurance.

3. An **efficient regulatory structure** should be in place. Given the importance of housing policy, the government is typically involved in any housing finance system in one way or another. However, housing finance is also part of the overall system of capital allocation. Therefore, regulations should be designed and implemented in a way that doesn't distort the efficient allocation of capital. Mortgage banks have to be carefully supervised in terms of risk-weighting ratios, minimum capital, loan lending limits and

42 Workshop „Housing in transition countries" held 2002 in Paris.

valuation methods. Other important issues are the matching of cash-flows, information about the quality of assets of a mortgage bank that collaterize the issued bonds.

4. **Adequate funding** is an indispensable factor for any housing system. Funding sources can be through deposits or security markets. At least one of them needs to be available to channel private savings to housing finance. With an undeveloped bond market and a short-term nature of the structure of liabilities of banks, housing finance cannot completely rely on capital market funds. Housing finance has to rely more on deposits and savings schemes. When capital market finance is not sufficient, there can be a need of a liquidity facility to provide funds for housing finance. Subsidizing the Bausparkassen system is not recommended, though.

5. **The role of the private sector** in setting up or managing financial institutions is no longer a matter of debate. State housing banks often proved to be inefficient. The loan business and the management of risk should be done by private financial institutions. A healthy housing finance system cannot be maintained with public funds alone. When deciding about a housing finance system, transaction costs and simplicity of the system should be kept in mind.

6. **Government subsidies**: If assisting home buyers is a priority, a government should implement a system of well targeted subsidies. Subsidies should be linked directly to needy beneficiaries, instead of subsidizing low-interest mortgages. Subsidies have to be demand-sided and subsidizing inefficiency and stagnation in privileged special institutions should be avoided.[43] These subsidies should be targeted to low- and medium-income households and be financed from the budget. **The subsidy of choice are downpayment subsidies** of the type implemented e.g. in Russia. This ensures that subsidies are separated from credit. Downpaymenst are superior to other forms of subsidies because they are well targeted, transparent, simple to administer and the government has a good cost control. Long-term budgetary commitments as multiyear subsidies should be avoided because they limit the ability of a country to modify programs when conditions in the country are changing.[44]

7. It is recommended to **develop special instruments not special institutions**. Though special institutions have some advantages (e.g. easy to supervise), the creation of special institutions (Bausparkassen for contract savings and mortgage banks to attract

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43 see Struyk (2000), p. 38-44.

44 see Worldbank (2001), p. 29.

funds from capital markets) has many disadvantages: Special institutions are costlier to develop and take time to become functional. Specialized institutions have not been satisfactory in the Eastern European countries analyzed. Universal banks can perform the same tasks as specialist institutions, so a universal Pfandbrief Act is recommended. It is not necessary to introduce both types of specialist institutions.

Mortgage bonds are attractive for obtaining capital market funds for housing finance. Particularly in countries with a banking system that is not very liquid and banks liabilities are in short-term instruments. But, when capital markets are not developed enough in terms of size and liquidity, the issuance of mortgage bonds to private investors might not be possible. So far no Eastern European country has managed to channel capital market funds into housing finance to a great extend and to establish considerable mortgage banks.

As shown above the Bausparkassen system has many draw-backs. It targets subsidies poorly and doesn’t promote saving much. The government shouldn’t promote the development of Bausparkassen and not subsidize it. When private savings should be enhanced in order to overcome the scarcity of housing finance, savings plans, regardless of the institution, could be subsidized. On the other hand, when Bausparkassen emerge spontaneously, the government should not prevent it.

In transition countries private commercial banks are a natural starting point to develop a housing finance system with their low-cost deposits. Access to capital markets allows to expand their mortgage lines of business. Countries initiating the development of a housing finance system should first and foremost rely on universal banks.

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