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EUROPEAN MORTGAGE MARKET:
AN OVERVIEW 1992-2003

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Abstract:

The development of the European mortgage market, its current situation in terms of volume, growth, prices, interest rates and new products, and an analysis of mortgage integration are the focus of this paper.

The recent creation of the European Mortgage Finance Agency (EMFA), as an attempt to build a single European securitization market, is an important step toward integration within the wider goal of EU financial integration. Obstacles to integration, potential members of the EMFA, and its main goals and advantages are discussed in the forward-looking section of this paper.

In addition, the paper deals with three important aspects of the EU mortgage market, taken as a whole:

- How it operates. Other aspects considered include transaction costs, transparency requirements affecting credit institutions (European Code of Conduct), and a classification of mortgage products on the market.
- Refinancing in Europe (as compared to the USA). The secondary market for the funding of financial institutions, in relation to mortgage bonds and mortgage-backed securities, including explanations of their main characteristics and the differences between them.
- How European mortgage markets influence the economy and how they may affect private investment and consumption, household debt (which continues to increase each year), and the performance of financial institutions (high competitiveness).

Keywords: European mortgage market integration; European mortgage market; Mortgage loans outstanding; Mortgages as a percentage of GDP; Growth; Interest rate applied; Transaction costs

EUROPEAN MORTGAGE MARKET: AN OVERVIEW 1992-2003*

1. Introduction

In many ways, the main characteristic of European mortgage markets nowadays is their diversity in regulation, product types, and lenders. Although they have points in common, each country works differently, which makes it difficult to integrate their markets.

The performance of these markets over the last ten years has been positive, despite the recent economic weakness in some European countries. According to data provided by the European Mortgage Federation, mortgage credit outstanding increased from 1.86 trillion euros in 1992 to 4.49 trillion in 2002 (this includes outstanding residential and commercial mortgages). The increase is due to the trend in prices, especially house prices, which have risen in all European countries except Germany; the large drop in interest rates; and in some European countries, tax advantages and the increase in disposable income.

Mortgage loans outstanding in Europe as a percentage of GDP was 30% in 1992, rising to 40% in 2002, which indicates that mortgage credit is becoming more important in European economies. At the same time, the percentage of mortgages in relation to total loans, which was 31% in 1992, increased to 36% in 2002, again reflecting the growing importance of the mortgage market in the financial system.

As a result of these developments, credit institutions have been trying to create innovative new products to gain market share. These include flexible mortgages, self-certified products, and interest-only mortgages.

The growth of the mortgage market also contributed to the rise in household debt in Europe, which increased by 20% over the period 1991-2001. The loans granted to households by credit institutions were used: 60% for home-buying; 16% for consumption; and 20% for other purposes.

Despite this important development, cross-border lending between European countries is still very low, which is one of the reasons why the European Commission has emphasized the importance of the integration of European mortgage markets. Two important steps were: the Agreement on a European Code Of Conduct, drawn up by the European Credit Sector Associations, led by the European Mortgage Federation, and European consumer organizations, and negotiated and signed on March 5, 2001 under the

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aegis of the European Commission; and the study commissioned by the European Mortgage Federation and prepared by Mercer Oliver Wyman, entitled “Study on the Financial Integration of European Mortgage Markets.” The code of conduct will permit the standardization of consumer information, making the market more transparent for the consumer and boosting Europe-wide competition. The Mercer Oliver Wyman study identifies barriers to mortgage integration and explores solutions to achieve the benefits of integration.

The benefits for borrowers might include greater choice and cheaper mortgages, and for lenders, lower funding and risk management costs.

Finally, funding of mortgage lending institutions in Europe is sustained by retail deposits, mortgage bonds, saving, and mortgage-backed securities. According to the rating agency Moody’s, a mortgage bond is a “full recourse debt instrument secured by a pool of specifically-identified, eligible mortgage assets or claims against public sector entities.” When a mortgage lender issues mortgage bonds, it keeps both the bonds and the loans on its balance sheet, that is to say, mortgage bonds are an “on-balance-sheet instrument.”

Currently, mortgage bonds are the second most important funding source for mortgage markets in Europe. Among the countries that have a strong presence in the mortgage bond market are Germany, Denmark, Sweden and France.

Another less important but active funding source is mortgage-backed securities, which originated in the United States. When a credit institution issues mortgage-backed securities, it isolates the receivables and their associated cash flows from its other assets by selling them to a Special Purpose Vehicle, which then issues the securities. Among the more active countries in the mortgage-backed securities market are the United Kingdom, Spain, France, Ireland and Italy. In the last few years, there has been faster growth in UK, Spain and the Netherlands.

In this context, five banks from Spain, UK, Ireland, Portugal and France have created the EMFA (European Mortgage Finance Agency), which works toward the creation of a single pan-European securitization market, financed by private capital, very similar to the American Fanny Mae or Freddie Mac. Given organizations of this kind, mortgage lenders would be able to obtain new funds and finance on better terms.

2. Size of the European Mortgage Market

The main feature of the mortgage market in Europe is its *fragmentation*. In each country, there is a great variety of products, prices and customers, as well as differences in the types of contracts available and the institutions operating in the market. “The differences in contracts and institutions are the result of historical differences in demography and political and regulatory frameworks, as well as in consumer preferences. The types of lenders in each country are very different, as also are the types of products offered, particularly with respect to the ratio of the amount of the loan to the value of the property (what is known as the LTV or Loan to Value ratio), the duration of the loan, and the adjustment of the interest rate over the life of the loan. In each country, mortgage loans may include financial and non-financial services. These are additional services related to the mortgage, such as associated insurance products. In each type of loan, rights and obligations vary.”¹

¹ “El crecimiento del mercado hipotecario europeo,” ‘la Caixa’ Research Department.

Overall, in the last decade, the balance of mortgage loans outstanding has increased in all European countries. This is due basically to the fact that in most countries there has been a growing tendency for people to buy their own homes. While mortgage loans may be granted for purposes other than house purchase, according to data published by the European Mortgage Federation (EMF), in 2002 around 80% of mortgage loans were residential. This trend has been encouraged by fiscal policies that favor home buying over home rental, as for example in countries such as Holland and Portugal, and by enhanced income expectations due to lower interest rates, which reduces the cost of borrowing and boosts consumer confidence². Another important factor behind the rise in mortgage loans outstanding is the general rise in house prices in many European countries.

Each year, the proportion of mortgages in relation to total bank lending has increased. From 31% in 1992, it rose to 36% in 2002. The increase has been particularly notable in Spain (15.62%), Holland (12.26%) and Greece (10.26%). This has led to fiercer competition among financial institutions to maintain or expand their market share. To achieve that goal, they have continued to create new products, such as mortgage loans that can be used as consumer loans, loans linked to pension funds, or flexible mortgages that can be adapted to uncertain income flows³.

The growth of the European mortgage market is clear if we consider that mortgage loans outstanding increased from 30% of GDP in 1990 to 40% in 2001. The growing importance of mortgage credit is one of the reasons why efforts are being made to lay the foundations for European integration, which it is hoped will further stimulate market development.

Despite the fact that mortgage loans outstanding has increased year after year and the markets are expanding as new products are introduced, the individual country markets are quite separate and unrelated to one another. "In 2001, cross-border loans accounted for 1% of the total, most of them loans originated in Germany, which is suffering from what is known as 'overcapitalization,' forcing banks to look abroad. In Norway, cross-border mortgage lending has also increased slightly. In Spain, Ireland and France, there have been hardly any loans of this type, and in Italy none at all. The main reason for the underdevelopment of cross-border lending is the existence of multiple barriers, such as different legislation governing land registration, foreclosure and insolvency. That is why the European Commission, within the framework of the Financial Services Action Plan, has set itself the goal of achieving greater integration of the mortgage lending sector as part of the drive towards a single market for retail financial services."⁴

As far as the lenders are concerned, according to data published by the European Mortgage Federation⁵, in some countries, such as Italy and Portugal, the mortgage market is dominated by *universal banks*, and in others by *commercial banks*, notably Belgium (where they account for 95% of gross residential loans), Greece (80%), Ireland (79%) and Finland (46%). Universal banks provide banking services, properly speaking, and tend to be involved in enterprise promotion, often holding an equity interest in companies. Commercial banks, on the other hand, are specialized banks, along with merchant and industrial banks; they obtain their funds from sight deposits and their lending activity consists of short-term loans and the discounting of receivables.

² "El crecimiento del mercado hipotecario europeo," 'la Caixa' Research Department.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

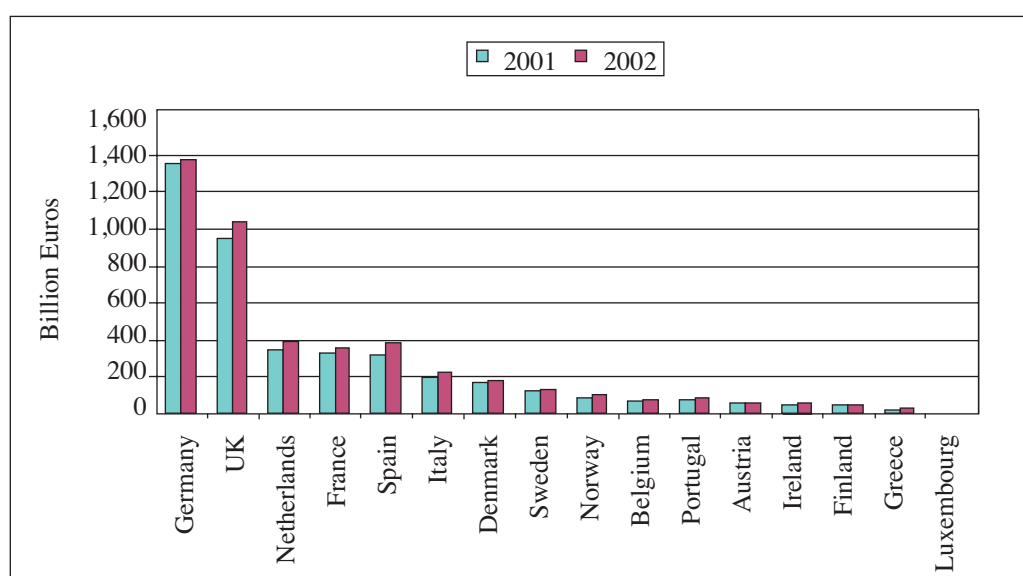
In Spain, Germany and Austria, an important role is played by *savings banks*, which account for 54%, 40% and 38%, respectively, of gross residential mortgage loans. In Denmark and Sweden, by contrast, *mortgage credit institutions* control 90% of the market. Cooperative and mutual institutions are major players in some countries, such as the *Bausparkassen* in Germany, which hold 23% of gross residential loans, and similar institutions in Austria (27%) and Finland (22%), and the *building societies* in Ireland (21%) and the United Kingdom (16%). Lastly, *insurance companies* and *pension funds* are active participants in the mortgage market in the Netherlands (10%), Germany (8%), Finland (7%) and Belgium (3%).

2.1. Volume of Mortgages in Europe and Growth in Mortgage Volume

The European mortgage market has evolved in different ways in recent years. On the one hand, in many countries there has been a marked growth in lending. Over the period 1991-2001, the volume of mortgage loans outstanding in Europe doubled to reach 3.9 trillion euros, having grown at a rate of 8% per year, representing 40% of the combined GDP of all European countries. Most mortgage lending (3.4 out of the 3.9 trillion euros, or 87% of the total) consisted of loans for house purchase. The remaining 0.5 trillion euros were for non-residential mortgages. Gross new residential mortgage lending in 2001 amounted to 564 million euros, more than twice the amount in 1990. In 2002, the total volume of mortgages was around 4.2 trillion euros, continuing the 8% growth and representing 40% of GDP. According to the European Central Bank, the outstanding balance of mortgage loans granted by monetary financial institutions in 2002 was 2.18 trillion euros, representing annual growth of 7.7%, compared with 6.9% growth in 2001. Growth slowed slightly in the first quarter of 2003 to 7.3%.

Chart 2.1.1 shows the mortgage balance outstanding in each European country in 2001 and 2002.

Chart 2.1.1. Mortgage Balance Outstanding, 2001-2002



Source: Hypostat 1992-2002, European Mortgage Federation, own elaboration.

* For the United Kingdom, Holland, France, Norway, Belgium and Finland, only residential mortgages.

The country with the largest residential mortgage balance outstanding in 2001 was Germany, followed by the United Kingdom, Holland and France. Spain lay in fifth place, with a total of 312.12 billion euros. In 2002, Germany still headed the list, followed by the United Kingdom. Spain appeared to be on a level with Holland, and ahead of France, but considering that the data for Holland and France were for residential mortgages only, we may assume that they were in fact ahead of Spain in the ranking. As can be seen in Table 2.1.2 below, mortgage lending increased in all the countries, more in some than in others. The modest growth in Germany (1.5%), Belgium (5%) and Luxembourg (2.4%) pales in comparison to Greece (35.6%), Norway (23.44%) and Spain (18.5%) (see Table 2.1.2).

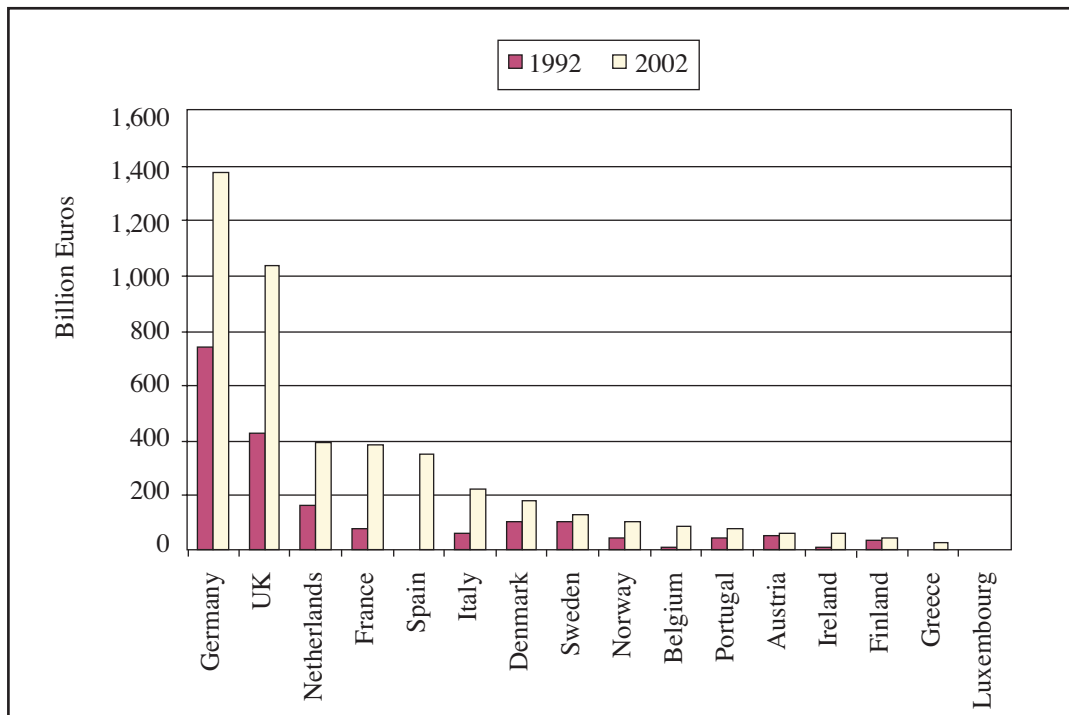
Table 2.1.2. Growth of Mortgage Loans Outstanding, 2001-2002
(in million euros and percent)

	2001	2002	Growth
Greece	15,652	21,225	35.61%
Norway	82,278	101,568	23.44%
Spain	220,913	261,921	18.56%
Ireland	38,343	47,212	15.83%
Holland	340,860	389,000	14.12%
Portugal	57,365	64,838	13.03%
Denmark	127,440	136,684	12.09%
Austria	52,800	58,438	10.68%
Italy	123,831	142,844	10.38%
United Kingdom	945,446	1,031,708	9.12%
Finland	43,370	44,411	8.86%
France	324,600	350,700	8.04%
Sweden	113,541	121,628	7.12%
Belgium	69,138	72,629	5.05%
Luxembourg	3,932	4,027	2.42%
Germany	1,122,809	1,139,830	1.52%

Source: EMF (Hypostat) and own elaboration.

Chart 2.1.3 compares the mortgage balance outstanding in the different countries in 1992 and in 2002.

Chart 2.1.3. Mortgage Loans Outstanding in Europe, 1992/2002



Source: EMF (Hypostat) and own elaboration.

*Belgium: For 2002, residential mortgages only.

*France: No data available for 1992; for 2002, residential only.

*Luxembourg: No data available for 1992; for 2002, residential only.

*Holland: For 2002, residential only.

*Finland: Residential mortgages only.

*United Kingdom, Norway: Residential mortgages only in both years.

Over the 10-year period, the volume of mortgages increased dramatically in Greece, Portugal, Ireland and Spain: in Greece and Portugal by around 600%, in Ireland by 500%, and in Spain by 400%, a spectacular leap compared to 140% in the United Kingdom and Holland, and 90% in Germany. Spain and Greece both joined the European Union somewhat later and in different circumstances than the rest, and their mortgage markets, along with those of Portugal, Ireland and Italy, expanded significantly over the period, and continue to expand, in an attempt to catch up with countries such as the United Kingdom and Germany, which still have a much larger volume of mortgage loans outstanding.

Table 2.1.4. Average Annual Growth and Growth 1992-2002

	Average Annual Growth	Growth 1992-2002
Greece	21.94%	607%
Portugal	21.37%	574%
Ireland	19.29%	480%
Spain	17.50%	399%
Italy	15.81%	265%
UK	9.53%	141%
Netherlands	10.70%	138%
Norway	8.73%	125%
Germany	6.54%	86%
Belgium	6.19%	81%
Denmark	5.74%	73%
France	4.66%	50%
Finland	3.90%	46%
Sweden	2.33%	22%
Austria	1.12%	10%

Source: Hypostat 1992-2002, EMF, own elaboration.

* In Belgium, residential mortgages only for the years 1998-2002.

* In France, residential only for 1993-2002.

* In Luxembourg, residential only for 1994-2002.

* In Finland and UK, residential only.

* In Holland, data available for 1992-1998 only.

Mortgage lending grew fastest in Greece. With the introduction of the euro and the preparations for the Olympics, the Greek economy grew by 4% in 2002, while house prices rose by 13%, contributing to the increase in mortgage lending. Greek financial institutions made efforts to innovate and created new products such as mortgages with a fixed preferential interest rate for one year, mortgages based on rates set by the European Central Bank, and mortgages with extended maturity (30 years). The Greek tax system further stimulates mortgage borrowing. "The government announced that it will reduce the amount of income tax relief on housing interest from 100% to 15% of imputed rental income, up to a maximum loan size of 200,000 euros."⁶

The situation in Ireland is similar. In 2002, the Irish economy grew by around 6%, the highest rate of any European country. The Irish mortgage market continued to grow very favorably, due mainly to strong demand and low interest rates, while house prices, after a period of rapid increases (around 30% in 1999), continued to rise in 2002 but at a more modest 4%⁷.

During 2002, economic growth in Spain was 2%, which, bearing in mind the overall situation in Europe, was quite good. This was accompanied by growth in the Spanish

⁶ Hypostat 1992-2002, EMF: Greece.

⁷ Hypostat 1992-2002, EMF: Ireland.

mortgage market, which continued in 2002, encouraged by good income prospects and low interest rates⁸.

Portugal, by contrast, had GDP growth of just 0.4%. Despite this, its mortgage market continued to grow strongly and, according to the Bank of Portugal, residential mortgage lending increased by 15.4%, which may seem inconsistent considering that the number of building permits fell by 9% in 2002 while the number of new houses completed fell by 2.3%. “The explanation may be that there was an increase in mortgage lending for the purchase of houses that were already built but unsold (apart from any apparent inconsistency resulting from the lack of actual sales figures). Portuguese national accounts record housing investment at the time of construction, so loans for new houses purchased in 2002 and reflected in the lending figures were already reflected in the figures for house construction in previous years.”⁹

In Italy, despite weak economic growth of 0.4% in 2002, mortgage transactions increased by 14%, the biggest such increase since the European Mortgage Federation started to keep records in 1983. This gave rise to an increase in mortgage credit to finance both the purchase and the construction of new houses. In fact, total gross lending¹⁰ in Italy rose by 20%¹¹. House buying was also stimulated by the reduction in interest rates and real estate transfer taxes. Overall, the Italian market developed steadily and, although in 2002 growth was somewhat slower, over the period 1992-2002 it ranked fifth, behind Spain¹².

The development of the mortgage market in these countries was further assisted by the growth in the housing industry, population trends, and average household size, which was slowly declining (in 1999, 2.5 people per household). The growing individualism in European societies has led to an increase in one-person households. Another factor is the increase in life expectancy¹³.

Economic growth in Germany and Holland in the latter part of the period was poor (0.2%), and although unemployment was well below the European average¹⁴, it nevertheless increased in 2002 to 1.4% and 2.7%, respectively¹⁵, leading to a loss of confidence in income expectations. Household indebtedness in Holland was very high (189.9%)¹⁶, increasing the risk of default. The German real estate market was in a slump, largely owing to economic recession. House prices were stagnant and in some regions had even fallen.

The same is true of the United Kingdom, which also had slow economic growth of 1.8% over the period, although in line with many other European countries. Despite this, house prices increased by 25%, and strong demand and refinancing led to continued growth in the market¹⁷.

⁸ Hypostat 1992-2002, EMF: Spain.

⁹ Hypostat 1992-2002, EMF: Portugal.

¹⁰ Gross lending: Total amount of money advanced during the period (including all loans converted into new loans on the same property).

¹¹ Hypostat 1992-2002, EMF: Italy.

¹² See Table 2.1.1.

¹³ “El crecimiento del mercado hipotecario europeo,” ‘la Caixa’ Research Department.

¹⁴ Unemployment in Europe averaged 8.4%. Hypostat 1992-2002, EMF.

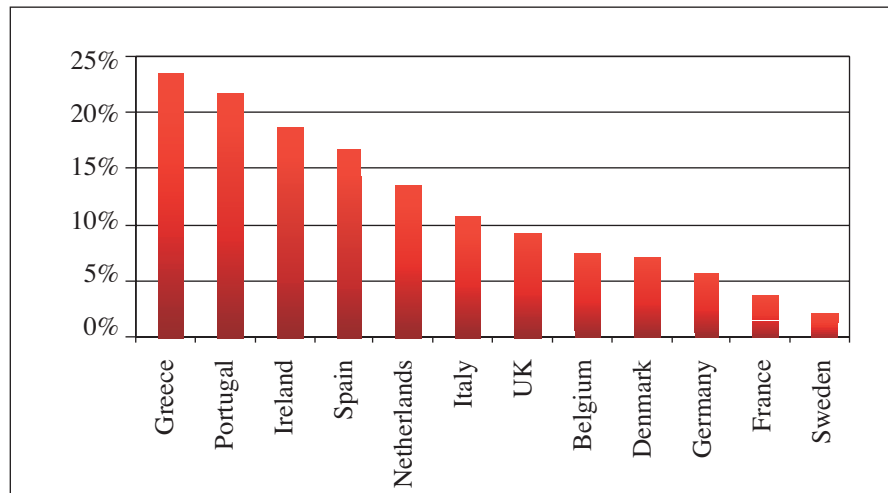
¹⁵ According to DataStream, unemployment as a percentage of the labor force increased by 0.5% in Germany and by 0.8% in Holland.

¹⁶ “El endeudamiento de los hogares españoles,” Ana del Río, Bank of Spain.

¹⁷ Data on Germany, Holland and the United Kingdom are from Hypostat 1992-2002 (EMF) and ‘la Caixa’ Research Department.

In interpreting the figures for average annual growth in Table 2.1.4 we need to bear in mind that data for Holland are only available for the years 1992-1998, and that the data for Belgium from 1998 to 2002 are for residential mortgages only. That is why the order of growth does not coincide with the order shown in Chart 2.1.5, produced by the European Mortgage Federation.

Chart 2.1.5. Average Growth Rate, 1992-2002



Source: European Mortgage Federation, “The challenges of developing housing finance in Europe – Are there lessons to be learned?” Judith Hardt and Cristina Costa.

According to the European Central Bank, mortgage lending has grown at the same rate as house prices, and even faster in some countries, such as Spain, Portugal and Italy, where the initial debt outstanding was not very high. In recent years, the biggest growth in mortgage credit has been in Spain, Ireland, Portugal, Greece and the Netherlands, as the chart shows.

According to Judith Hardt and Cristina Costa¹⁸, European real estate markets can be classified in three groups. First, southern European countries that joined the EU later, including Italy, Spain and Greece, are still trying to catch up with the more advanced markets in the North. “Their housing finance markets were characterized by publicly owned mortgage lenders, high levels of owner occupation, high transaction costs, few transactions, relatively few products, and high mortgage interest rates.” After joining the EU, these countries saw a rapid change in their markets and started to catch up with the more developed mortgage markets. A second group consists of the Scandinavian countries and the UK: “their markets are relatively developed and are characterized by high transaction levels, supported by highly liberalized financial markets.”¹⁹ Finally, there are countries such as Germany and Austria: “this housing model involves a larger segment of the population living in rented accommodation and lower levels of owner-occupation (40% and 50%, respectively). These

¹⁸ “The challenges of developing housing finance in Europe – Are there lessons to be learned?” European Mortgage Federation.

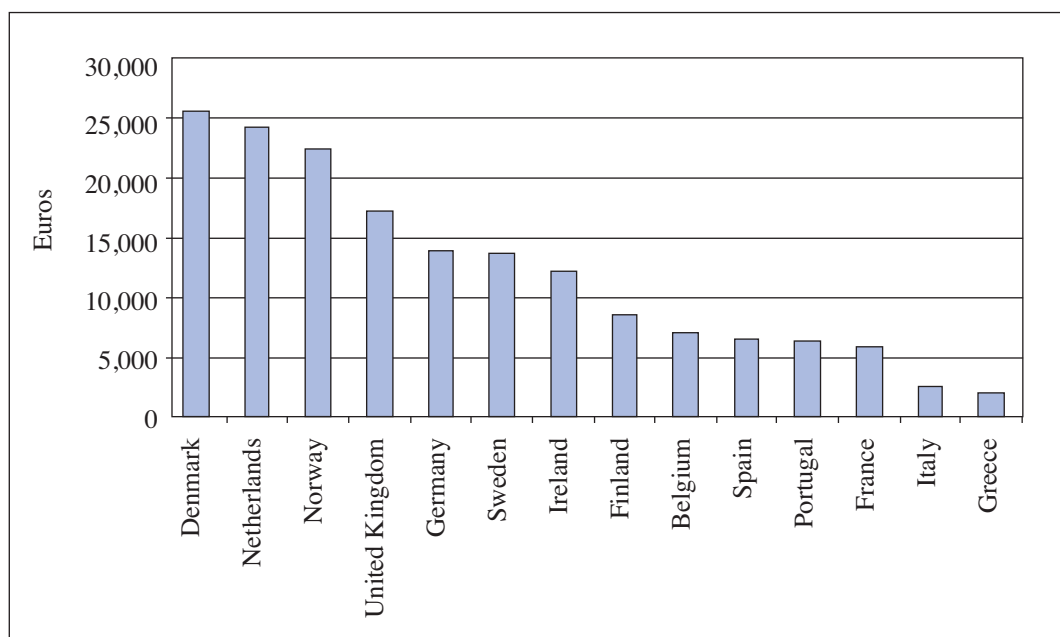
¹⁹ Ibid.

countries' housing finance systems are more specialized, highly regulated, and integrated, which creates a more stable but less active market.²⁰

2.2 Mortgage Loans Outstanding per Capita and as a Percentage of GDP

Another measure of the intensity of mortgage indebtedness is the outstanding balance per capita. Chart 2.2.1 show this measure for 2002.

Chart 2.2.1. Mortgage Loans Outstanding per Capita, 2002



Source: Hypostat, DataStream and own elaboration.

According to the European Mortgage Federation, the countries with the highest mortgage balance outstanding per capita are Denmark, the Netherlands and Norway. Despite the fact that Denmark has the highest debt per capita in Europe, “given the predominance of fixed rate loans across the whole portfolio, the market is largely protected from interest rate shocks.”²¹ Owner occupancy²² stands at 53% (see Table 2.2.2), significantly below the European average. One of the reasons for this high level of indebtedness is that Denmark has a high percentage of commercial indebtedness (23%). It should also be borne in mind that the Danish government has placed certain restrictions on financial institutions, which are not allowed to grant mortgages for more than 80% of the value of the property.

²⁰ Ibid.

²¹ Hypostat 1992-2002, EMF: Denmark.

²² Owner occupancy: Percentage of dwellings owned outright or being purchased with a mortgage in relation to total housing stock.

Owner occupation, 2002

Country	Percentage
Belgium	71%
Denmark	51%
Germany	42%
Greece	83%
Spain	81%
France	56%
Ireland	77%
Italy	80%
Luxembourg	72%
Netherlands	53%
Austria	50%
Portugal	66%
Finland	61%
Sweden	61%
UK	69%
Norway	77%

Source: Hypostat 1992-2002, European Mortgage Federation.

At the opposite extreme is Greece, with 83% owner occupancy and the lowest debt per capita, despite the growth in mortgage borrowing. According to the Bank of Greece, borrowing is concentrated among the wealthiest households, and outstanding loans do not exceed annual income²³. This means that there are unlikely to be problems with defaults. All the same, the Bank of Greece has been cautious and has raised the ratios of provisions for loans and arrears.

In second place behind Denmark is the Netherlands, where lower interest rates and rising house prices helped to boost lending in 2002. The rate of owner occupancy was 53%, close to the European average²⁴. It is important to note that in Denmark and the Netherlands the number of housing transactions has increased due to mortgage refinancing and mortgage loans for consumption or to replace other consumer debt.

In 2002, the rate of owner occupancy in Norway was 77%, the seventh highest in Europe. This fact and the fall in mortgage lending rates explain why Norway has the third highest mortgage debt per capita.

The countries with the lowest debt per capita are Greece, Italy and France. As we said earlier, Greece has had the biggest growth in mortgage borrowing, but “its ratio of household debt to the banking system at the end of 2002 was 22.3%²⁵, compared with a European average of 47%.”²⁶

²³ Hypostat 1992-2002, EMF: Greece.

²⁴ Hypostat 1992-2002, EMF: Netherlands.

²⁵ Household indebtedness as a percentage of total bank borrowing.

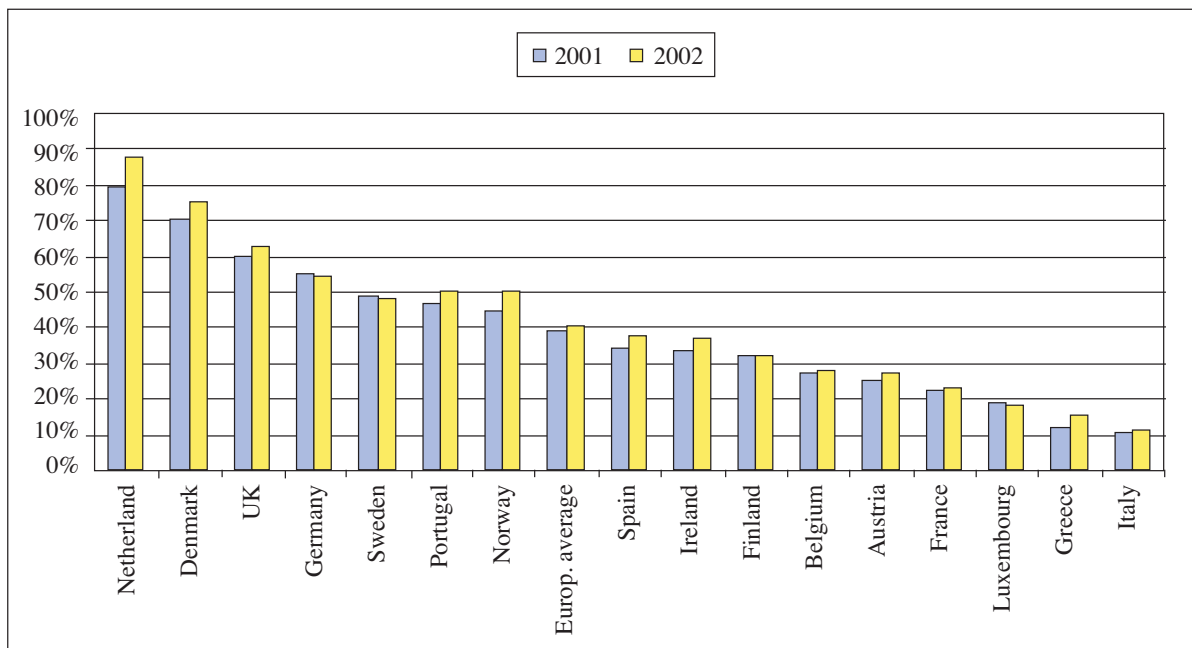
²⁶ Hypostat 1992-2002, EMF: Greece.

Italy has experienced rapid growth in owner occupancy, from 68% in 2000 to 80% in 2002. Despite this, mortgage indebtedness, at 11%, is not high, which reduces the risk from any sudden rise in interest rates or weakening of the Italian economy²⁷.

France's owner occupancy rate of 55% in 2002 partly explains its lower debt per capita, but if we look at mortgage loans outstanding in 2002, we find that France ranks fourth in Europe, which means that there is still plenty of room for growth in this market. However, the French economy at the end of 2002 was going through a difficult period. An increase in unemployment to 9.1% from 1.6% the previous year depressed income growth, which had a dampening effect on the performance of the mortgage market.²⁸

Chart 2.2.3 shows mortgage loans outstanding as a percentage of GDP. As mentioned earlier, in 1992 mortgages represented around 30% of GDP, rising to 40% in 2002.

Chart 2.2.3. Mortgage Loans Outstanding as a Percentage of GDP, 2001-2002



Source: Hypostat, own elaboration.

In 2002, the European average was 40.97%. The countries with an above-average ratio of mortgage loans outstanding were: the Netherlands, with 87.6% in 2002, an increase of 8.4% over 2001; Denmark (74.8%); United Kingdom (62.2%); Germany (54.1%); Norway (50.3%), which had overtaken Portugal and Sweden in 2002, with a 5.7% increase; Portugal (50.2%), which itself had overtaken Sweden, thanks to growth of 3.6%; and Sweden (47.6%), with negative growth of -0.9%.

²⁷ Hypostat 1992-2002, EMF: Italy.

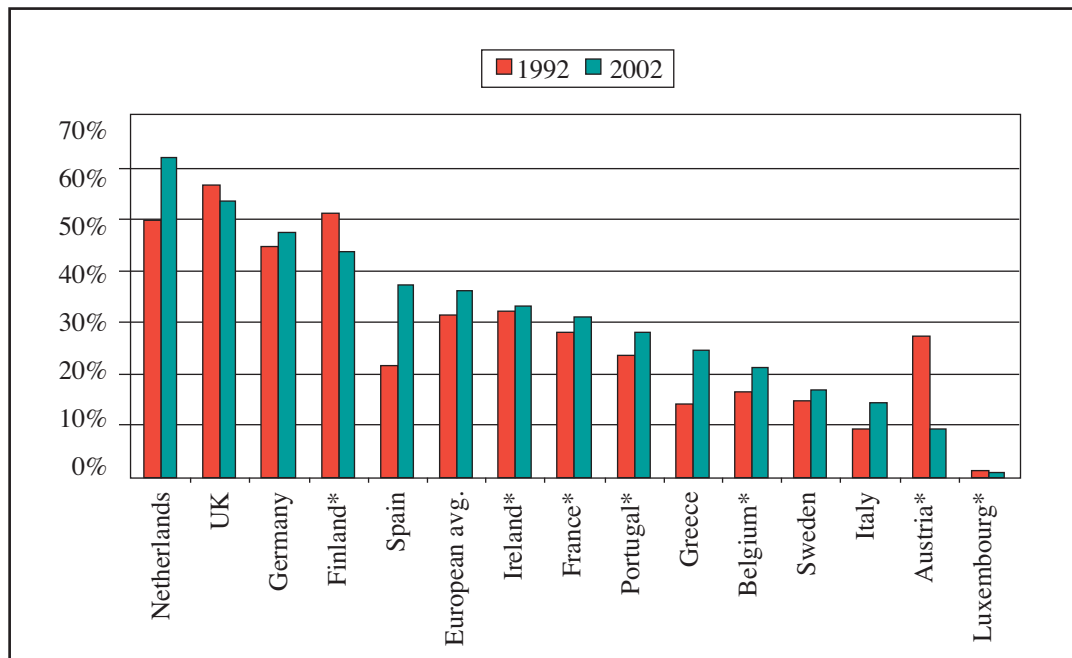
²⁸ Hypostat 1992-2002, EMF: France.

In all of the countries with a below-average ratio of mortgage loans outstanding, the ratio increased in 2002, except in Luxembourg, where the ratio of mortgage loans outstanding to GDP fell by -0.5%, and Finland (-0.3%). This group comprised Spain (37.7%), Ireland (36.8%), Finland (31.8%), Austria (27%), France (23.1%), Luxembourg (18%), Greece (15%) and Italy (11.4%). The increase was particularly significant in Spain (3.8%), Ireland (3.6%) and Greece (3%), the three European countries whose mortgage markets were developing most strongly.

2.3 Ratio of Mortgage Loans Outstanding to Total Loans

This ratio shows the weight of mortgage loans within total bank lending.

Chart 2.3.1. Mortgage Loans/Total Loans



Source: Own elaboration, EMF.

Total Loans: Obtained from DataStream.

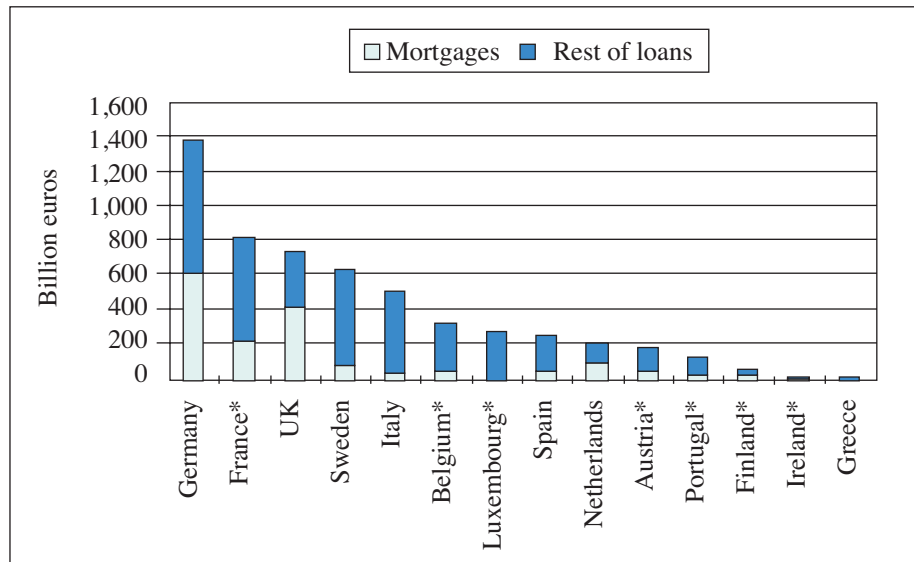
For France, Spain, Italy, Germany, Holland, USA, Ireland, Greece, Sweden and Austria, "Bank lending to the private sector." For the United Kingdom, "Bank and Building Society Lending Total." For Ireland and France, the data are for 1993 and 2002. For Austria, the data are for 1992 and 2001.

For Belgium, Finland, Luxembourg and Portugal, "Domestic Credit," but the data are for 1999 and 2002.

The ratio increased in all the countries except the UK and Austria. That is because in Austria, although total loans increased considerably, mortgage loans hardly increased at all, while in the United Kingdom the rise in total loans was greater than the rise in mortgage loans outstanding. The increase in mortgage lending as a percentage of total bank lending was especially high in Spain. The ratio decreased in Finland and Luxembourg (data for 1999 and 2002), where, as in the United Kingdom, the increase in total loans was greater than the increase in mortgages. In Belgium, the weight of mortgage lending increased in 2002.

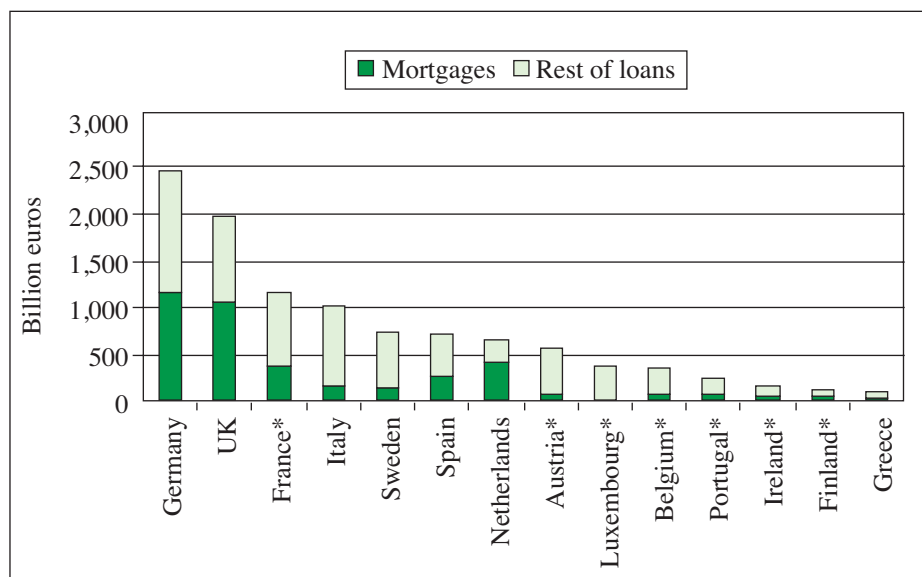
Chart 2.3.2 below shows the weight of mortgage lending in billion euros.

Chart 2.3.2. Weight of Mortgages in Total Loans, 1992



Source: European Mortgage Federation, DataStream, own elaboration.
 BE, PT, LX, FN: data 1998.
 IR,FR: data 1993.

Chart 2.3.3. Weight of Mortgages in Total Loans, 2002



Source: European Mortgage Federation, DataStream, own elaboration.
 Austria: data are for 2001.

The weight of mortgages in total loans increased in almost all countries. This means that, overall, the mortgage markets have developed very well in recent years, and that credit institutions are competing to obtain the maximum number of mortgages. A good way for them to do that is to create new types of mortgages, with different features, depending on the type of consumer. And indeed, many new types of mortgage products have been developed, especially in the UK, the U.S., the Netherlands and France.

2.4 Impact on the Economy

• Household indebtedness

The following table shows an international comparison of household indebtedness in Europe in terms of gross disposable income.

Table 2.4.1
Household indebtedness: country comparison
(as a % of gross disposable income)

Year	1991	1995	1999	2001
France	55.5	55.6	56.1	58.6
Germany	83.9	99.6	109.9	111.5
Belgium		58.8	65.2	62.2
Holland	96.5	124.9	153.1	189.9
Netherlands		58.9	59.3	66.8
Finland	81.3	63.8	58.5	70.4
Italy	24.8	25.6	285	33.7
Spain	4.3	45.7	58	76.7
Portugal		40.9	69.2	96.6
Ireland			60.3	74.5
EMU	60.1	66.9	74.1	80.3
UK	102.	96.6	99.5	111.9
USA	83.9	89.3	93.1	103.9

Source: "El endeudamiento de los hogares españoles," Ana del Río, Bank of Spain.

As can be seen in the table, the level of household indebtedness in the United Kingdom, the United States, Germany and Holland is considerably higher than household gross disposable income. In 2001, the ratio of indebtedness was 112% in the United Kingdom, 104% in the United States, 111% in Germany, and 189% in Holland, well above the European average of 80%. On the other hand, some countries had a much lower ratio, notably Italy, Austria and Belgium. According to Guiso and Jappelli (2000), in Italy this was due to certain peculiarities in the regulation of the Italian financial system and the existence of high costs, which in the event of default led to the enforcement of guarantees²⁹.

Over the ten-year period 1991-2001, household indebtedness in Europe as a whole increased by 20%, more or less as in the United States. In Great Britain, however, it decreased overall, although there was a slight rise in 2001, reaching 111.9%. In Spain, Portugal and Ireland, household indebtedness grew very considerably, above all because of the steady development of these countries' financial markets and the boost they received

²⁹ "El endeudamiento de los hogares españoles," Ana del Río, Bank of Spain.

from membership of EMU. Another factor was the rapid increase in mortgage lending. In France, by contrast, the level of indebtedness, which already was below the EU average, did not increase, while in Austria there was an increase, but the level still remained well below the EU average.

Holland had a high rate of household indebtedness, as can be seen from the various charts and tables showing the mortgage balance outstanding, where it ranks third behind Germany and the United Kingdom. The mortgage balance outstanding is also quite high in Germany, contributing high levels of household indebtedness, although the rate of owner occupancy is among the lowest in Europe. This suggests that there is a high percentage of non-residential mortgage debt.

At present, the main source of household borrowing in Europe is bank loans, which account for 85% of the total, although other institutions such as insurance companies also play a role. In Holland, Austria and Belgium these latter account for around 25% of borrowing. The entry of new, non-banking institutions into this market has been fundamental for the expansion of private, and in particular household, borrowing. It also means that the risk associated with the loan portfolio is not concentrated in one sector. Securitization is also helping banks to reduce the risk of their loan portfolio and free up funds to meet the demands of borrowers³⁰.

The growth of mortgage lending has played an important part in the overall increase in household indebtedness in recent years. In fact, the bulk (specifically, 64%) of bank loans granted to households are for house purchase (see Table 2.4.2).

Table 2.4.2
(Average percentages, 1996-2001)

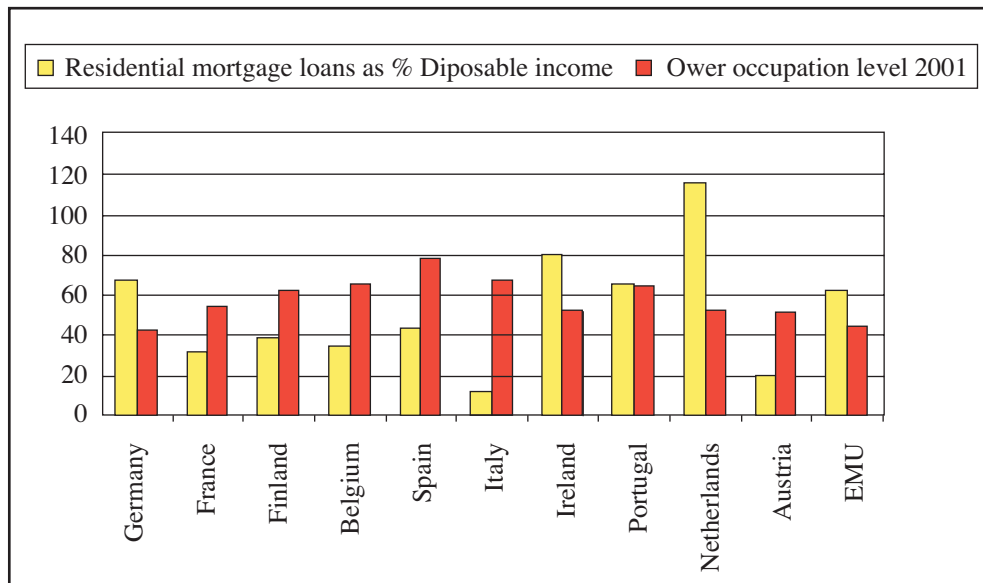
	Bank Loans (% GDI)	Bank Loans as a % of Total Loans	Application			Terms		
			Consumer	Housing	Others	Up to a year	Between one and five years	More than five years
France	52.9	90.4	23.30%	63%	13.70%	5.10%	18.10%	76.90%
Germany	102.4	91.8	16.50%	63.50%	20.00%	8.10%	8.00%	83.90%
Belgium	51.2	82.4	10.80%	65.40%	23.90%	8.20%	12.30%	79.50%
Netherlands	137.4	72.4	5.40%	86.40%	8.30%	7.50%	4.20%	88.30%
Austria	45.7	68.3	38.40%	46.50%	15.10%	12.30%	9.60%	78.10%
Finland	62.4	86.4	11.60%	66.60%	21.80%	4.80%	8.10%	87.10%
Italy	30.1	91.9	8.70%	39.00%	52.30%	20.10%	24.60%	55.30%
Spain	72.3	95.6	17.40%	63.50%	19.10%	7.50%	13.20%	79.40%
Portugal	92.6	95.8	11.50%	75.40%	13.10%	9.70%	11.10%	79.20%
Ireland	74.5	n.a.	24%	76%	0.00%	19.80%	12.30%	67.80%
EMU	71.4		16.20%	63.70%	20.10%	8.70%	11.40%	79.90%

Source: "El endeudamiento de los hogares españoles," Ana del Río, Bank of Spain.

³⁰ "El endeudamiento de los hogares españoles," Ana del Río, Bank of Spain.

We can see from the table that this percentage is fairly homogeneous, except for Italy and Austria, where it is markedly lower. This might be explained by the rate of owner occupancy in these two countries, but if we look at Chart 2.4.3, we see that there is not really much correlation: although Austria has a very low level of indebtedness and a similarly low level of owner occupancy, Italy has a low percentage of household indebtedness but a very high level of owner occupancy, much higher than France, for example, which has a higher level of indebtedness.

Chart 2.4.3. Household Indebtedness as a Percentage of Gross Disposable Income (GDI) and Owner Occupancy Rate, 2001



Source: European Mortgage Federation, Bank of Spain.

Going back to Table 2.4.2, we see that Holland ranks first in borrowing for house purchase, with 86%, followed by Ireland and Portugal, in both of which there has been a notable expansion of the mortgage market.

In Spain, in the third quarter of 2003, household borrowing amounted to 500 billion euros, quite high compared with the European average. Of that total, 393.46 billion was long-term loans, that is, mortgages, which shows how the unstoppable rise in house prices in Spain (which has seen the biggest increase in Europe) has driven the increase in household debt, bearing in mind that at that time mortgages represented 66% of total bank loans. Spain is one of the most heavily indebted countries in the euro area. With household indebtedness equal to 60% of GDP in 2003, Spain is above the European average of 51%, followed by Germany, Holland, Luxembourg and Portugal. Despite this high level of indebtedness, the Bank of Spain remains unconcerned, as the wealth of Spanish households also increased in 2003, thanks to the stock markets. Between July and September 2003, financial wealth increased by 11.2%, reaching 719.12 billion euros³¹.

³¹ “La vivienda dispara la deuda de las familias hasta máximos históricos” (“Housing causes household borrowing to rise to historic levels”), Estela S. Mazo, *Expansión*.

We can conclude, therefore, that the development of mortgage lending in recent years has had a strong influence on the increase in household borrowing, considering that most of the loans are used to buy homes.

3. Characteristics of Mortgage Loans

3.1 Classification of Mortgages According to Interest Rate and Term

There are many different types of mortgages, with different interest structures, but generally speaking they can be classified in three groups:

Table 3.1.1

Product type	Definition
Fixed Rate Mortgages	The most common in Europe. In general, the same rate is paid for more than five years, and after that it is adjusted during the life of the loan.
Mixed Rate Mortgages	There is a fixed rate for 1 to 4 years, and then the interest rate changes according to the deals established in the contract, or depending on an external index (reference index): Euribor, Mibor, etc. In some countries the interest rate may be renegotiated. Rate Reset Mortgages could also be included in this group.
Variable Rate Mortgages	A fixed rate is paid for a period of one year, after which the rate is established by the lender depending on the financing cost. The frequency of rate adjustment varies. Equally, the interest rate may be indexed.
New kinds of mortgage products on the market:	
Interest only loans	The borrower pays only interest (no principal repayments) during the first years of the loan.
Sub-prime mortgages ³²	Bad credit mortgages that offer fast funding with minimum requirements, the possible trade-off being somewhat higher rates or fees.

³² www.crhome.com/sub-prime-mortgages.htm

	Intended for borrowers who find it difficult to obtain home financing because their loan request does not conform to conventional lender guidelines.
Self-certification mortgages ³³	Usually for the self employed and/or for those who are having difficulty in getting a mortgage. This type of mortgage requires no proof of income, no length of self-employment.
Non-conforming loans ³⁴	Mortgages for people who want to purchase a home but have limited funds to cover the down payment and closing cost, marginal or irregular income, overextended credit, or past or present credit problems.
Buy-to-let mortgages ³⁵	For people who want to buy a second property to let. There are three main differences between buy-to-let and ordinary mortgages: <ul style="list-style-type: none"> – <u>Rent Potential</u>: the decision whether or not to grant the mortgage will usually be based on the rent earned by the person seeking the mortgage, as well as that person's other income, although in some cases the income is not considered. – <u>Interest rate</u>: a slightly higher interest rate is charged. – <u>Larger deposit</u>: typically, a minimum of 20%-25% of the property's value is required as a deposit.
Other important products	
Subsidized mortgages, flexible loans and offset mortgages	In offset mortgages the borrower's savings balance is offset against the mortgage loan for the purpose of calculating interest.

The term of mortgage loans varies. On the one hand, in Sweden, the Netherlands, Denmark and Portugal, periods of 30 years are common, whereas in Italy, 10-year mortgages are the norm. In Spain, the average term is around 20 years.

Fixed-rate mortgages are usual in most European countries, except Spain and the UK. In a recent paper, Professor David Miles of the University of London explains the reasons for the UK market's preference for variable rates, the obstacles to the adoption of fixed rates, and the consequences.

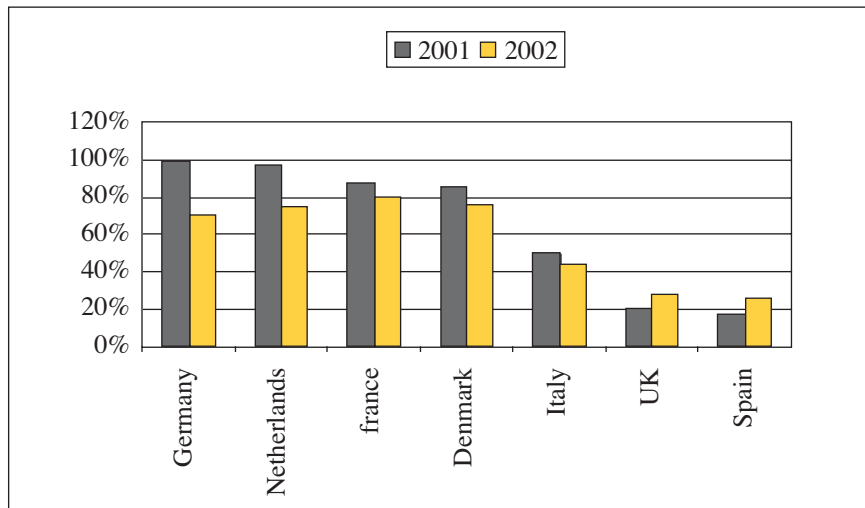
³³ Reference: www.debt-consolidation-loan-uk.co.uk/self-certified-mortgages-uk.htm

³⁴ www.ncua.gov/PALS/BP/PALSDocs/05536-32-1.htm

³⁵ www.mortgages.co.uk

Chart 3.1.2 shows the proportion of fixed rate mortgages in European countries.

Chart 3.1.2. Fixed Rate Mortgages as a Percentage of Total Mortgages, 2001-2002



Source: *The Economist*, Special Report on the Mortgage Markets. October 18, 2003. Hypostat (EMF), and own elaboration.

In 2002, the percentage of fixed-rate mortgages increased in the UK and Spain, while the reverse occurred in Germany, the Netherlands, France, Italy and Denmark. The UK government intends to increase the number of fixed-rate mortgages, especially with a view to future adoption of the euro, although in Spain, where variable-rate mortgages are also very common, the introduction of the euro did not cause any problems. On the contrary, house prices in Spain have increased and the market has not experienced any turbulence, although some experts maintain that there is a real estate bubble in Spain that could burst at any moment. These experts also affirm that the best solution for any mortgage market is a combination of fixed and variable-rate mortgages with different terms. The differences in the products and the economic context make it difficult to compare interest rates between the different European countries.

As we saw in section 2.3, the weight of mortgages in total loans has increased year after year, and as a consequence, competition between financial institutions has intensified. Lenders therefore try to create new products to attract as many customers as possible.

Table 3.1.3 shows the different types of mortgage product available in Europe, according to a recent study produced by Mercer Oliver Wyman in September 2003 in collaboration with the European Mortgage Federation³⁶.

³⁶ "Study on the Financial Integration of European Mortgage Markets," Mercer Wyman Oliver, September 2003.

Table 3.1.3. Mortgage Products in Europe

Country	Range of products
Spain	<ul style="list-style-type: none"> • Variable-rate (indexed) mortgages, reviewed every 6-12 months, are the most common. • Fixed-rate mortgages are very unusual, only 5% of total. • Innovations: <ul style="list-style-type: none"> – Flexible mortgages – Capped rate mortgages
Germany	<ul style="list-style-type: none"> • Very active market: <ul style="list-style-type: none"> – Wide range of highly standardized products – Efficient funding mechanism: <i>Pfandbriefe</i> – <i>Bausparkassen</i>: 10% of mortgage loans • Adjustable long-term fixed-rate mortgages predominate. • The term of the loans is between 20 and 30 years, with a fixed-rate period of 10 to 15 years. • Variable-rate mortgages are very unusual, only 5% of total. • Indexed variable-rate mortgages are not available for legal reasons. • Interest-only mortgages, where borrower pays only interest for a given period, 5-10-15 years; repayment is via an insurance policy.
Denmark	<ul style="list-style-type: none"> • Fixed-rate mortgages denominated in Danish crowns at more than 30 years are the most common. • Variable-rate mortgages denominated in Danish crowns and in euros, with adjustment frequencies between 1 and 10 years. Can be considered as loans with constant principal repayments. • Now more 10-30 year variable-rate mortgages are beginning to appear.
Italy	<ul style="list-style-type: none"> • Mortgages available: <ul style="list-style-type: none"> – Variable-rate (adjustable with respect to a reference index) – Fixed-rate – Mixed • Principal repayments may be: <ul style="list-style-type: none"> – Fixed – Increasing – Decreasing • Flexible mortgages • Interest only mortgages are also available • Loan-to-value ratio is very low: 50-60%, although Micos Banca is starting to offer mortgages with a LTV of 100%, using mortgage insurance to cover the borrower's additional risk. • High-risk sub-prime loans are not very common.

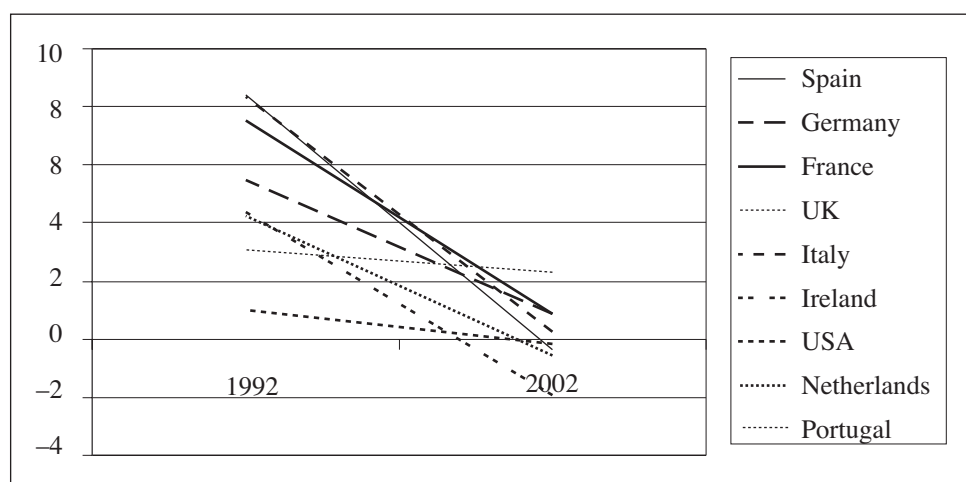
Holland	<ul style="list-style-type: none"> • One of the broadest mortgage markets in Europe; furthermore, interest paid on mortgages is not tax-deductible. • Interest only mortgages with high LTV dominate the market. • Lenders try to offer products tailored to consumer needs; very often, they include mortgages linked to a savings or investment product. • 80% of mortgages are fixed-rate, and of those, 60% are at 10 years. • 20% of mortgages are variable-rate. • Sub-prime or self-certified products are not available.
Portugal	<ul style="list-style-type: none"> • Variable-rate mortgages (not indexed to Euribor) are the most common. • The term tends to be between 20 and 25 years. • Fixed-rate mortgages have always been less popular, although they are becoming more common. • A special feature is subsidized mortgages, which account for a large proportion of mortgage loans outstanding. • High-risk mortgages such as sub-prime or non-conforming are not available.
United Kingdom	<ul style="list-style-type: none"> • Mortgages differ above all in: <ul style="list-style-type: none"> – Repayment structure: <ul style="list-style-type: none"> - Repayment/Amortization mortgages - Interest only mortgages - Flexible mortgages. – Rate structure: <ul style="list-style-type: none"> - Variable-rate - Fixed-rate (very short adjustment periods) - Capped-rate. • There are very few long-term fixed-rate products, but there are quite a few short-term fixed-rate products to attract new business. • Innovative, high-risk products: <ul style="list-style-type: none"> – Offset mortgages (which allow savings and the mortgage to be offset against one another for interest calculations) – Sub-prime – Buy-to-let – Self-certified loans.
France	<ul style="list-style-type: none"> • Wide range of products; subsidized mortgages, 0% interest, PEL, PAP loans, regulated loans... • The most common are fixed-rate. • Variable-rate mortgages account for 20% to 30% of total. • Flexible mortgages, interest-only mortgages, capped rate and sub-prime mortgages are available, but the latter only from specialized lenders.

Source: "Study on the Financial Integration of European Mortgage Markets," Mercer Oliver Wyman, September 2003.

Within the European Union, based on the Maastricht criteria, a process of interest rate convergence has begun that will create the conditions for the third phase of monetary union.

In 2002, the lowest interest rates were in Spain, Ireland, the Netherlands, Portugal and Greece, while in 2003, Spain and Finland had the lowest rates.

Chart 3.1.4. Interbank Interest Rates in Europe



Source: DataStream.

Table 3.1.5. Interest Rates in Europe

	1992	2002
Spain	8.45	-0.36
Germany	5.49	0.84
France	7.53	0.84
UK	3.08	2.30
Italy	8.37	0.24
Ireland	4.35	-1.95
USA	1.00	-0.16
Netherlands	4.26	-0.55
Portugal		-0.85
Norway		5.91
Sweden	7.81	1.67
Belgium	5.63	1.20
Finland	7.73	1.19
Greece	7.08	-0.76

Source: DataStream.

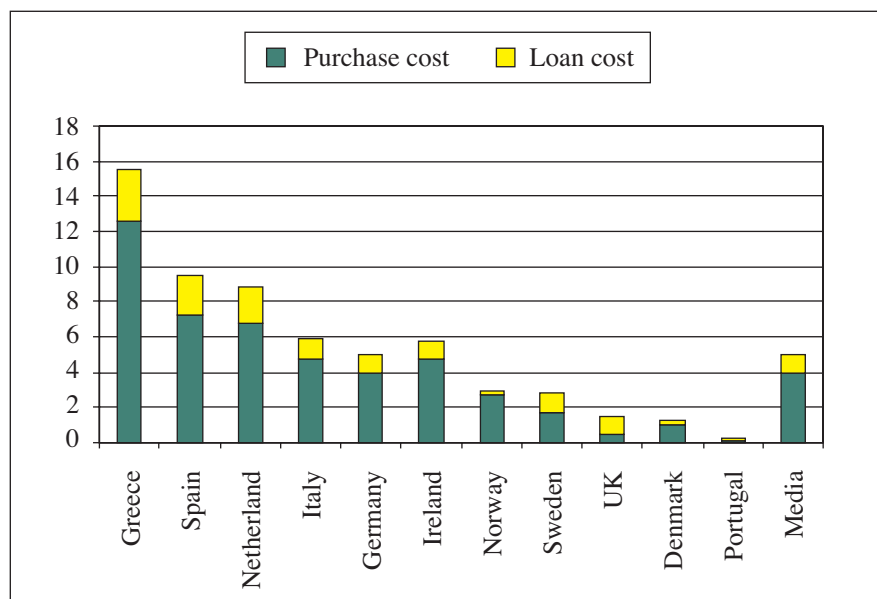
Over the period 1992-2002, interest rates went down dramatically. In some countries, they were even negative. This fact, together with the growth of the economy and convergence in the euro zone, has made it easier for households to obtain mortgages. In addition, the cost of mortgages has decreased, and EU member states are building the foundations for the integration of European mortgage markets.

3.2 Transaction Costs

According to the study by Mercer Oliver Wyman, “transaction costs are the price the consumer has to pay when purchasing a mortgage loan, or changing mortgage providers, that is to say, loan cost. Loan costs include property valuation, solicitor/notary fees associated with loan purchase, mortgage registration costs, taxes associated with the loan, administration agency costs and other loan costs including lender charges for the loan. In some European countries, many of the mortgage-related fees are added to the loan, which improves mobility, but the costs are still born by the borrower.”³⁷

Chart 3.2.1 below shows transaction costs across the European Union;

Chart 3.2.1. Transaction Costs Across the European Union



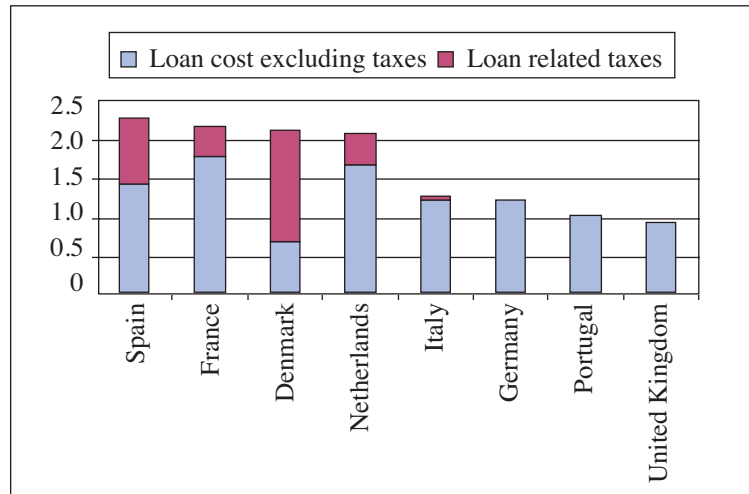
Source: “Study on the Financial Integration of European Mortgage Markets,” Mercer Oliver Wyman.

As can be seen in Chart 3.2.1, the highest transaction costs are in Greece, Spain and the Netherlands, with a high dispersion from the European average. At the opposite extreme are Portugal, Denmark and the UK, with very low loan cost. It is interesting to note that the UK has relatively low transaction costs because it has a highly developed market with intense competition. In contrast, Denmark and Portugal both have low transaction costs despite the fact that their markets are very concentrated.

³⁷ “Study on the Financial Integration of European Mortgage Markets,” EMF, Mercer Oliver Wyman.

Chart 3.2.2 shows the proportion of taxes in loan costs.

Chart 3.2.2. Loan Cost as a Percentage of Property Purchase Price



Source: “Study on the Financial Integration of European Mortgage Markets,” Mercer Oliver Wyman.

The different prices and levels of development of the markets can be explained by other factors apart from structural differences, notably transaction costs. Despite convergence of mortgage interest rates, a general decline in interest rates, and a reduction of risk for lenders, cross-border operations are still very infrequent, one of the reason being the existence of high transactions cost.

3.3 Mortgage Refinancing

Mortgage refinancing has been developing rapidly in various countries, especially in the United States since 1992. Refinancing consists of paying off the old mortgage and taking out a new one with a better interest rate, better terms and conditions, or just for a larger amount. Refinancing is not suitable for everybody, and each person must weigh up the pros and cons before refinancing. According to an Americans Bankers Association report entitled “A Consumer’s Guide to Mortgage Refinancing,” refinancing is worthwhile if the new interest rate is at least 2% lower than the old one (other authors claim that it is worthwhile with only a 1.5% difference). This is the “safe margin,” when the costs of the transaction and the resulting savings are weighed up. Another factor to consider is the length of time the person is likely to stay in the house, because the refinancing cost will only be outweighed by the benefits if the person stays for at least another three years.

Normally, the people most interested in refinancing are the ones who obtained a mortgage when interest rates were high, or who took on an adjustable-rate mortgage and now want a different sort on better terms. As a rule, they are in one of the following situations³⁸:

³⁸ “A Consumer’s Guide to Mortgage Refinancing,” www.pueblo.gsa.gov.

- People who want to benefit from a lower interest rate and will be in the house long enough to offset the additional refinancing cost.
- People who have acquired an adjustable rate mortgage and are looking to replace it with a fixed-rate mortgage so that they know exactly how much interest they are going to have to pay each month.
- People who want to turn their adjustable-rate mortgage into a lower interest rate mortgage with more protectionist conditions.
- People who want faster growth of their real estate asset portfolio by reducing the repayment period. Higher repayments will accelerate the process.
- People who want to use their mortgage loan insurance to obtain new funds that will allow them to finance new transactions or pay outstanding debt.

This last type of mortgage refinancing is very common in the United States. It consists basically of withdrawing part of the value of the property to pay outstanding debts. According to a study carried out by MGIC Capital Markets, a division of Mortgage Guaranty Insurance Corporation (a Milwaukee-based private mortgage insurance company), “cash obtained through mortgage refinancing will be used to pay off non-tax-deductible, high-interest debts such as car purchases, credit card debt... The rest of the debt will be consolidated into a tax-deductible, low-interest mortgage payment.”

Lenders require that borrowers have private mortgage insurance (PMI) when taking out a mortgage loan, although this requirement may be waived if the borrower deposits 20% of the property value. Currently, many consumers use PMI as means of administering their debt. An MGIC study on the expansion of mortgage refinancing in the United States reveals two amazing trends³⁹:

- Interest rates for mortgage refinancing were 0.6% higher than the previous year. Why, then, has mortgage refinancing increased in the past few years? According to Mark Marple, Vicepresident of mortgage banking strategies at MGIC, consumers prefer to pay a higher (tax-deductible) mortgage interest rate than the current 9% for non-tax-deductible consumer loans and credit card borrowing.
- The average home-owner reduced her real estate capital by increasing her mortgage balance outstanding by \$41,000 after refinancing.

People who already have PMI before refinancing keep it after refinancing. And people who do not have it, take out PMI for the purpose of refinancing. Today a large number of Americans take advantage of their real estate capital and, thanks to PMI, obtain high LTV mortgages that allow them to settle other debts. According to Michael Zimmerman, Vicepresident of Mortgage Banking Strategies at MGIC, “consumers nowadays consider mortgage loans as a source of cash and financial flexibility. They are more conscious of their options in terms of debt administration or reduction of interest.” In addition, Zimmerman affirms that “half of borrowers that use refinancing are motivated by debt consolidation.

³⁹ “Refinanciación con seguro hipotecario privado para dueños de casa, para que saquen más provecho de sus casas,” www.Micanews.com.

Through mortgage insurance, consumers are able to manage their personal finance and debts.”

As we already said, refinancing is not worthwhile for all borrowers. When we turn the old loan into a new one, we will have to pay various costs. According to “A Consumer’s Guide to Mortgage Refinancing,” a booklet prepared by a group of U.S. organizations (see bibliography), the refinancing costs are as follows:

Table 3.3.1

Cost of Mortgage Refinancing	
a. <u>Application Fee</u>	Imposed by the lender to cover the cost of processing the loan request and checking the applicant’s credit report.
b. <u>Title Search and Title Insurance</u>	Title search will cover the cost of examining the public record to confirm ownership of the real estate. Title insurance covers the cost of a policy, usually issued by a title insurance company that insures the policy holder in a specific amount for any loss caused by discrepancies in the title of the property.
c. <u>Lender’s Attorney’s Review Fees</u>	This is charged by the lender in relation to fees paid to the lawyer or company that conducts the closing for the lender. The borrower may also be required to pay for other legal services relating to the loan which are provided to the lender.
d. <u>Loan Origination Fees and Points</u>	Loan origination fees are charged for the lender’s work in evaluating and prepaying the mortgage loan. Points are a prepaid finance charge imposed by the lender at closing to increase the lender’s yield beyond the stated interest rate on the mortgage note.
e. <u>Appraisal Fee</u>	This fee pays for an appraisal, which is an estimation of the value of the property.
f. <u>Prepayment Penalty</u>	A charge of money for an early pay-off of the existing mortgage loan. It varies by state, type of lender, and type of loan. Prepayment penalties are forbidden on some loans.
g. <u>Miscellaneous</u>	Depending on the type of loan and other factors.

Source: “A Consumer’s Guide to Mortgage Refinancing,” www.pueblo.gsa.gov

A borrower who wants to refinance her mortgage will have to pay at least 3%-6% of the outstanding principal in costs, prepayment penalty, and the cost of paying the total amount of a second mortgage.

Depending on the intended purpose, several different types of refinancing are available⁴⁰. If the purpose is to obtain liquidity from the loan or pay off debts, it is called a “*debt consolidation loan*”, “*home equity loan*” or “*cash out refinance*”. If the borrower wishes to obtain some capital gain from her home to make some improvements to it, it is called a “*home improvement loan*.” If the borrower seeks a credit line secured by her home, it is called a “*home equity line of credit*” (HELOC).

The situation in Europe is different and mortgage refinancing is less widespread than in the United States, although it is becoming more popular. According to data provided by the European Mortgage Federation, Belgium’s gross lending in 2002 was 21% higher than in the previous two years, but one third less than in 1999, while net lending was 7% higher. Taking into account the fact that gross lending is the total amount of money advanced during the period (including all loans converted into new loans on the same property), and net lending is the change in outstanding mortgage loans during the period, if we compare gross and net lending, we see that refinancing accounts for a significant proportion of mortgage lending in Belgium.⁴¹

In Denmark, too, there was a marked increase in gross and net mortgage lending (25% and 6%, respectively) in 2002, while the number of housing transactions hardly increased, which suggests that the boost to lending came from refinancing and mortgage loans for consumption or to replace other consumer debt.⁴²

The situation in the Netherlands, with gross and net lending of 25% and 12.4% in 2002, was similar to that of Denmark. The number of housing transaction was very modest (1.5%), suggesting that mortgage refinancing was being used as “additional borrowing without moving house, which it turn suggests that homeowners continued to use some of the equity in their homes for consumer spending in 2002.”⁴³

Finally, in the United Kingdom, high demand for property was accompanied by high levels of refinancing, partly to finance consumption.

3.4 Transparency

European Code of Conduct

The European Agreement on a Voluntary Code of Conduct for Pre-contractual Information on Home Loans was signed on March 5, 2001 by the European Credit Sector Associations, led by the European Mortgage Federation, and consumer organizations. The negotiations as well as the signature of the Agreement were conducted under the aegis of the European Commission.⁴⁴ The European Code of Conduct is an important step on the way

⁴⁰ “El vocabulario hipotecario: Muchos nombres, mucha variedad,” www.terra.com

⁴¹ Hypostat 1992-2002, EMF: Belgium.

⁴² Hypostat 1992-2002, EMF: Denmark.

⁴³ Hypostat 1992-2002, EMF: Netherlands.

⁴⁴ European Mortgage Federation.

towards the integration of European mortgage markets. Its aims are to ensure transparency of information and facilitate comparison between different markets (comparability). According to the European Mortgage Federation, “The object of the Code is to improve and standardize consumer information and help prospective borrowers choose the mortgage loans best suited to their needs. By standardizing information, the Code is intended to help develop cross-border mortgage transactions and boost competition in the still fragmented European mortgage markets.”

The agreement provides backing for a voluntary code of conduct to be implemented by any institution offering home loans to consumers. Below is a summary of the Agreement:⁴⁵

Coverage of the Code:

Domestic and cross-border home loans.

Definition of a “Home Loan” for the purposes of the Code:

“A credit to a consumer for the purchase or transformation of the private immovable property he owns or aims to acquire, secured either by a mortgage on immovable property or by a surety commonly used in a Member State for that purpose. Home loans covered by the Consumer Credit Directive (87/102) are excluded from the scope of the Code.”

Terms of Implementation:

The European Credit Sector Associations subscribing to the Code will make an official public announcement of their commitment to it. After that, each association will send an official recommendation to its national members, inviting them to subscribe to the Code, and in turn, each national member will invite individual institutions to announce their commitment to the Code within 6 months of ratification of the agreement. The date of implementation of the Code should be within 12 months of the date of notification. Each branch of the individual institutions subscribing to the Code will make copies available to whoever may request one. Consumers will be informed of the Code’s existence and availability by a special notice in the European Standardized Information Sheet, and the European Credit Sector Associations will publish an annual progress report on implementation of the Code. In addition, the European Commission will monitor the uptake and effectiveness of the Code and ensure that a central register is kept, indicating which institutions offer home loans and which of them have and have not adopted the Code. Other institutions which are not members of the European Credit Sector Associations may adhere to the Code.

Voluntary Code of Conduct on Pre-contractual Information for Home Loans:

The Code deals with pre-contractual information to be provided to consumers regarding home loans. Institutions subscribing to the Code undertake to provide the consumer with the following information:

⁴⁵ “European Agreement on a Voluntary Code of Conduct on Pre-contractual Information for Home Loans,” EMF.

- General information about home loans on offer. For example, the lender’s identity and address, details about home loans (purposes for which home loans may be used, form of surety, different interest rates, etc.)
- Personalized information at a pre-contractual stage to be presented in a “European Standardized Information Sheet” (ESIS). This includes a description of the product; nominal rate; annual percentage rate of charge (APRC) based on the national regulation or effective rate, where relevant; amount of credit advanced and currency; duration of agreement; number and frequency of payments; for repayment home loans, amount of each installment; additional non-recurring costs; additional recurrent costs.

The up-front text would make it clear that, “The figures are provided in good faith and are an accurate representation of the offer that the lender would make under current market conditions based on the information that has been provided, however the figures could fluctuate. The provision of this information does not oblige the lender to grant a credit.”⁴⁶

Application of the Code throughout Europe has been very successful. By the end of 2002, more than 3,600 credit institutions had subscribed to the Code. Table 3.4.1 below shows the number of subscribed institutions in each country, and the percentage they represent of the total.

Table 3.4.1

	Number of Credit Institutions Registered	Percentage of the total national mortgage market
Belgium	36	90%
Denmark	6	94%
Germany	1,454	90%
Greece	21	88%
France	9	30%
Ireland	11	95%
Italy	492	95%
Luxembourg	16	90%
Netherlands	116	99%
Austria	607	90%
Portugal	21	99%
Finland	350	100%
Sweden	90	95%
UK	144	98%
Norway	10	40%

Source: European Code of Conduct (EMF).

⁴⁶ “European Agreement on a Voluntary Code of Conduct for Pre-contractual Information on Home Loans,” EMF.

The country with the lowest rate of registration is France. This is due to national difficulties, particularly in the handling of the European register. The procedure for adhering to the code was initiated on February 27, 2003, and in that year the percentage rose to around 50%. It will not increase until the “French Government responds to the official request made by the Fédération Bancaire Française (FBF) in September 2002 that the ESIS be considered as an equivalent to the ‘offre préalable’.”⁴⁷

Spain is the only country that has not registered yet. This is because of incompatibilities between Spanish legislation and the Code. Nevertheless, the Spanish authorities have promised to solve this problem and the Code will be applied in Spain as soon as possible, thanks to new legislation which endorses it. Since 1994 there has been in Spain a “Ministerial Order” requiring transparency of information in mortgage loans and guaranteeing a level of consumer protection equal or superior to that provided by the Code.⁴⁸

Implementation of the Code has been on the whole very successful. In Belgium, Denmark, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal, Finland, Sweden and Norway, adoption has been almost 100%. In Ireland the figure was 90%, due to some institutions applying the code later, and in Austria, 15%-20%.

In the United Kingdom, in contrast, implementation has been less successful. That is because of a regulation on transparency that has been in force since 1997 and is similar to the European Code of Conduct, but that does not include some aspects, such as the “European Standardized Information Sheet.” Consequently, credit institutions in the UK have not yet applied the entire Code and are waiting for a new law on mortgage credit, due in 2004, that will allow them to do so.

To conclude this section, it is important to point out that transparency is an essential requirement for mortgage markets. According to Judith Hardt and Cristina Costa of the European Mortgage Federation, European mortgage markets will be regulated by “bank capital adequacy requirements:” “The current discussions in Basel and Brussels will lead to a new set of prudential rules that will apply to all credit and financial institutions. The new regulatory own funds requirements will revise the current risk weighting regime to take into consideration a broader range of risk (credit and market risk but also operational, legal and reputational risks). Internal ratings, market discipline and supervisory related issues are also a focus of both regulators.”

“For the market to operate efficiently, good access to reliable, publicly available information is required. Transparent valuation methods or house price indices (for sellers and buyers) would be good means of achieving this. It will also be necessary to solve some of the problems with land registration, which tends to be very complicated and slow, as in the case of Italy, and the high variable cost of notaries, as in France and Germany. A good solution would be to standardize information or support on-line access.”

⁴⁷ EMF, European Code of Conduct, “Registration.”

⁴⁸ EMF, European Code of Conduct, “Registration.”

4. Secondary Market

4.1 Funding of Credit Institutions

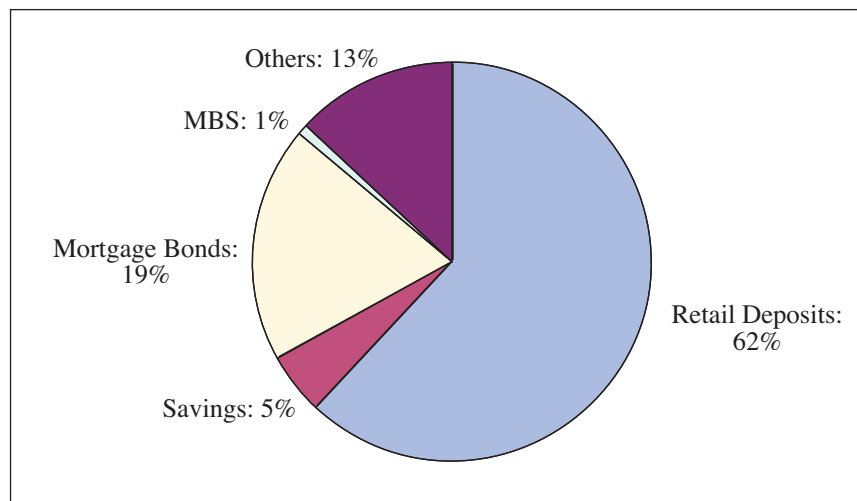
Credit institutions attract short-term funds from the public and lend them long-term to investors with the mortgage as security. The financial resources of credit institutions are therefore highly volatile, while their financial investments are tied up. This gives rise to interest rate, refinancing and opportunity risk, which the credit institution passes on to borrowers by increasing the cost of credit and the variability of interest rates. If credit institutions could attract long-term funds or mobilize the assets on their balance sheet (that is to say, their mortgage portfolios) by granting loans or issuing securities guaranteed by those portfolios, then they would have eliminated those risks. They would also be able to grant more mortgage loans at lower cost.

Generally speaking, there are three ways in which mortgage lending institutions obtain funding in Europe:

1. Retail deposits
2. Mortgage bonds
3. Mortgage-backed securities

According to European Mortgage Federation estimates, in 1998 62% of credit institution funding came from retail deposits, 19% from mortgage bonds, and 1% from mortgage-backed securities (MBS). MBS have grown considerably in importance since 1998, especially since the development of market securitization as an instrument to obtain new and more diversified funding. Securitization permits the lender to transfer some of the risks of the market.

Chart 4.1.1. Funding of Credit Institutions in Europe, 1998

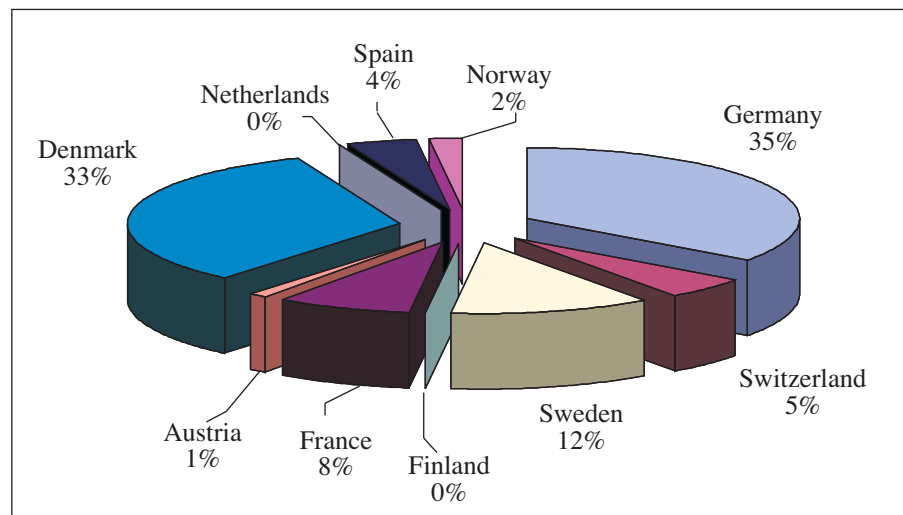


Source: European Mortgage Federation.

Mortgage bonds are the second most important funding instrument. Mortgage bonds are secured by their underlying asset, in this case, the mortgage loan which the bank has on its balance sheet. According to a study published by the European Mortgage Federation, “The Weighting of Mortgage Bonds,” in 2002 mortgage bonds represented 18% of the European capital markets, which means that approximately 15.24% of mortgage loans were funded by mortgage bonds. At the end of 2000, according to data provided by Hypostat, the volume of mortgage bonds outstanding was 559.43 billion euros.

Chart 4.1.2 shows the different countries’ share of the European mortgage bond market.

Chart 4.1.2. Share of the European Mortgage Bond Market, 2002



Source: “The economic and financial importance of mortgage bonds,” EMF.

According to Chapter 1, “The economic and financial importance of mortgage bonds,” of the fourth edition of “Mortgage banks and mortgage bonds in Europe,” Germany is the European leader in mortgage bonds. The type of mortgage bonds known as *Hypothekenspfandbriefe*, and public mortgage bonds, or *öffentliche Pfandbriefe*, added up to 1,100 billion euros. Jumbo *Pfandbriefe* amounted to 410 billion euros⁴⁹. Although mortgage bonds are not the principal source of finance in Germany, Chart 4.1.3 shows that they nevertheless account for 19% of the total.

The second largest mortgage bond market is Denmark, where the outstanding volume reached 190 billion euros at the end of 2002, representing 33% of the total European mortgage bond market. “In Denmark, only specialized mortgage banks are allowed to issue *Realkreditobligationer*. In practice, eight mortgage banks cover nearly 100% of the Danish mortgage market.”⁵⁰

⁴⁹ “The economic and financial importance of mortgage bonds,” EMF: Germany.

⁵⁰ “The economic and financial importance of mortgage bonds,” EMF: Denmark.

Sweden was in third place in 2002, with a balance of mortgage bonds outstanding of 70 billion euros, representing 12% of the European total. Mortgage bonds issued in Sweden, known as *Hypoteksbanksobligationer*, are unlike those in many other European countries in that they are not subject to special regulation and are not directly collateralized. “Instead, they are covered by the bank’s entire balance sheet, and the privileged position of the bondholder is enhanced by the strict limitation of the mortgage institution’s assets to mortgage lending.” Around 70% of the funding obtained by Swedish credit institutions is obtained via the issuance of mortgage bonds.⁵¹

In France, at the end of 2002, the volume of mortgage bonds outstanding was 71 billion euros, representing 8% of the European total, making France the fourth largest market in Europe. “Since the inception of the French Mortgage Act in 1999, French *Obligations foncières* have been issued by specialist credit institutions (Sociétés de Crédit Foncier, SCF) and are collateralized by mortgage and public sector loans, which together constitute a single cover pool. SCFs are designed as funding vehicles (generally without staff) and are usually managed by another credit institution, generally the holding parent bank. They do not usually run asset origination on their own.”⁵² According to data from Hypostat, in 2002 mortgage bonds funded around 16% of residential mortgage loans.

The fifth largest market is Switzerland, with 31 billion euros of mortgage loans outstanding. The main distinguishing feature of the Swiss market with respect to the rest of Europe is that it has no mortgage banks, but instead two institutions known as *Pfandbriefzentrale*, which finance their member institutions by issuing *Pfandbriefe* (the institutions are public and private commercial banks)⁵³.

After Switzerland comes Spain, with 25 billion euros of mortgage bonds outstanding in 2002, representing 4% of the total. “In Spain, any credit institution regulated by the Bank of Spain is allowed to issue *Cédulas hipotecarias*. After taxation rules changed in 1999, the Spanish covered bond market experienced a renewal, with an active 20 billion euro Jumbo market segment. Since early 2003, banks have also been allowed to issue *Cédulas territoriales* secured by public sector loans to public entities within the EEA.”⁵⁴ In Spain, 7% of mortgage loans are financed by mortgage bonds.

In Austria, 51% of mortgage loans are financed by mortgage bonds. Mortgage bonds outstanding (property as collateral) at the end of 2002 amounted to 5 billion euros (10 billion of Austrian *Pfandbriefe*). The law that regulates the issuance of mortgage bonds was passed in 1938, based in large part on the German law. “Although the Austrian Mortgage Bank Act is based on the specialist bank principle, all Austrian mortgage bond-issuing institutions today are either mixed mortgage banks or public banks (*Landeshypothekenbanken*). In addition, a centralized mortgage bond-issuing institution held by *Landeshypothekenbanken*, the *Pfandbriefstelle*, is also allowed to issue *Pfandbriefe*.”⁵⁵

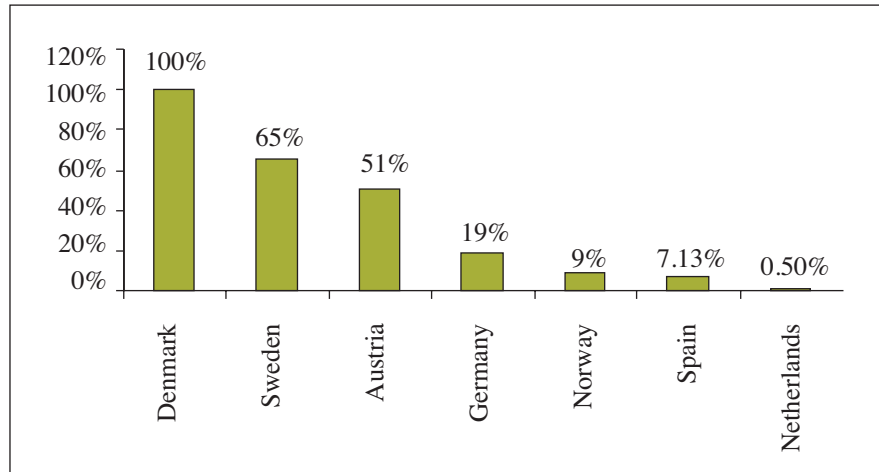
⁵¹ “The economic and financial importance of mortgage bonds,” EMF: Sweden.

⁵² “The economic and financial importance of mortgage bonds,” EMF: France.

⁵³ “The economic and financial importance of mortgage bonds,” EMF: Switzerland.

⁵⁴ “The economic and financial importance of mortgage bonds,” EMF: Spain.

⁵⁵ “The economic and financial importance of mortgage bonds,” EMF: Austria.

Chart 4.1.3. Mortgage Bonds vs. Mortgage Loans

Source: “The economic and financial importance of mortgage bonds,” EMF.

Here we can see the relationship pointed out above. It is worth noting that Norway has a large mortgage bond market, bigger than Austria, with 9 billion euros of mortgage bonds outstanding, although the proportion of mortgage loans funded by mortgage bonds is only 9%, well below the corresponding figure for Austria (51%). “Norwegian mortgage institutions issue bonds in foreign currency in international markets. The total outstanding volume of Norwegian mortgage bonds and other credit institutions’ bonds amounted to about 25 billion euros at the end of 2002.”⁵⁶

Chart 4.1.4 shows the volume of mortgage bonds outstanding in the different countries of Europe.

Table 4.1.4. Mortgage Bonds (property as collateral)
(in million euros)

Mortgage Bond Market (property as collateral)	
Germany	208,694
Denmark	191,373
Sweden	70,906
France	44,351
Switzerland	31,780
Spain	25,266
Norway	9,722
Austria	5,859
Netherlands	876
Finland	47
Total	588,874

Source: “The economic and financial importance of mortgage bonds,” EMF.

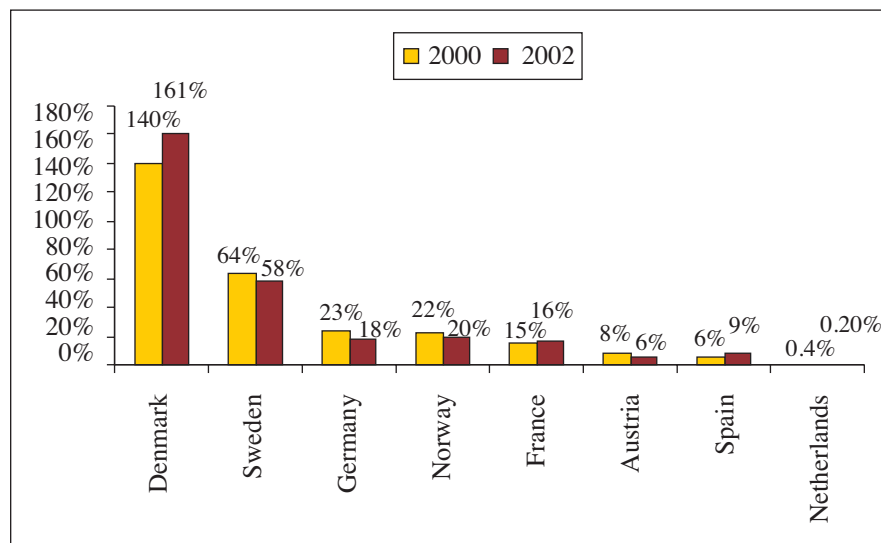
⁵⁶ “The economic and financial importance of mortgage bonds,” EMF: Norway.

Chart 4.1.5 below shows mortgage bond funding as a percentage of residential mortgage lending in 2000 and 2002, calculated from Hypostat data. Performance varied considerably from one country to another. Mortgage bond funding increased in Denmark (21%), Spain (3%) and France (1%), and decreased in Sweden (6%), Germany (5%), Norway (2%), the Netherlands (0.2%) and Austria (2%).

The Danish mortgage bond market is the second largest in Europe, behind Germany, and has been growing steadily since 1992. Germany's mortgage markets have been falling significantly; for example, "gross sales of bonds and fixed income securities issued by mortgage banks fell due to the mortgage banks' funding through uncovered paper becoming more expensive, and the volume of bonds outstanding issued by mortgage banks in 2002 fell by 4.9% to 701 billion euros, while mortgage *Pfandbriefe* outstanding fell by 7.5% to 432.5 billion euros," according to the European Mortgage Federation report.

The Spanish market expanded considerably in the years 2000-2002, and the year-on-year increase is even more noteworthy. In June 2002, according to the EMF report, the volume of mortgage bonds outstanding was 16.49 billion euros, while in June 2003 it was 36.01 billion euros, an increase of 118%.

Chart 4.1.5. Mortgage Bonds vs. Residential Mortgage Loans, 2000/2002



Source: Hypostat, European Mortgage Federation.

Normally, the issuers of mortgage bonds are the mortgage banks themselves, although that depends on the country. Table 4.1.6 shows the types and number of issuers in each country.

The **1998 UCITS directive** sets out a number of criteria that mortgage bonds must meet:⁵⁷

⁵⁷ "What are Mortgage Bonds?" EMF.

- They must be issued by credit institutions, and in accordance with legal provisions to protect bondholders.
- They are subject to special supervision by public authorities.
- The sums deriving from issuance of mortgage bonds must be placed in assets that provide sufficient cover for the liabilities deriving from the bonds until maturity.
- In the event of bankruptcy of the issuer, sums deriving from the issuance of mortgage bonds must be used as a priority to repay principal and interest becoming due.
- Issues must be notified to the European Commission.

Table 4.1.6

Country	Type of Issuer(s)	Number of Issuer(s)
Denmark	Mortgage Banks	10
Germany	Mortgage Banks (23 pure and 2 mixed), public sector credit institutions (12 Landesbanken, DGZ Deka bank and 6 public setor real estate credit institutions), ship mortgage banks (2)	45
Spain	Any credit institution (commercial bank, savings banks, credit cooperatives, and specialized financial institutions)	
France	<i>Société de crédit fondier</i> (real estate credit company) and <i>Caisse de refinancement de l'Habitat</i>	3
Luxembourg	Mortgage bank	3
Austria	Mixed Mortgage Banks (2), and the 8 Landeshypothekenbanken, issuing via their central mortgage fund (Pfandbriefstelle der österreichischen Landeshypothekenbankken)	3
Sweden	Mortgage companies	5
Finland	Mortgage Credit bank	2
Switzerland	Central Pfandbrief institutions	2

Source: “The Weighting of Mortgage Bonds,” European Mortgage Federation.

According to the European Mortgage Federation, mortgage bonds are an essential instrument of financial intermediation for raising the funds required by families, corporations, and in some countries, public bodies to finance house purchases or public sector loan transactions.⁵⁸

⁵⁸ “The Weighting of Mortgage Bonds,” EMF.

When a credit institution has among its assets a certain number of mortgage loans, it can mobilize them by issuing mortgage bonds, and so attract more funds. To do that, the institution sets up a fund with all the loans and then issues bonds that are sold to the public, to whom the credit institution pays interest. Both the mortgage loans and the mortgage bonds remain on the issuing institution's balance sheet, that is to say, this is an "on-balance-sheet process." That is one of the main differences between mortgage bonds and mortgage-backed securities.

"Mortgage bonds are regulated by law, which defines the criteria for eligible assets and other specific requirements. In some countries, the assets serving as collateral for the outstanding covered bonds are kept in a separate pool (that is the most common procedure), while in other countries all the mortgages or all the balance sheet assets serve as collateral for the bonds."⁵⁹

In addition, there is a "cover principle" which says that "mortgage bonds outstanding must be secured at all times by first mortgages or public sector loans of at least equal nominal amount and yielding at least equal interest."⁶⁰ In this connection, some countries have introduced net present value asset/liability matching rules.

In general, mortgage bonds do not have high risk. That is because they are guaranteed by the issuer, and also because they are highly regulated and supervised by law.

The level of security offered to mortgage bondholders enables credit institutions to raise funds from the capital markets at low cost, so that they can grant more mortgage loans at attractive interest rates.

The mortgage bank grants a mortgage loan to the borrower in order to purchase a residential property, a commercial property, or also to the public sector. The borrower gives the lender a first ranking mortgage or public sector guarantee, which serves as collateral to mobilize those assets through the issuance of mortgage bonds, which will be acquired by private or institutional investors. This is an effective way of obtaining new funds and refinancing. In short, mortgage bonds are based on the credit institution's mortgage loans, which are used as collateral for the issuance of securities on the capital markets. At all stages of this process (from the granting of the loan to the sale of the bonds), this is an "on-balance-sheet process," and is carried out by the credit institution, which additionally bears the credit risk of the bonds.

The bonds shown as liabilities on the credit institution's balance sheet are linked to a specific amount of mortgage loans on the asset side, not to a specific set of mortgage loans. When issuing mortgage bonds, credit institutions are exposed to different kinds of risk, including credit, market and prepayment risk, which are directly related to the loans. In spite of these risks, the credit institution is able to obtain cheap funding, thanks not only to the mortgage loans that serve as collateral but also to all of the institution's reserves and equity. This reduces the risk of the mortgage bonds, and consequently the rate of interest that is paid on them.⁶¹

⁵⁹ European Mortgage Federation.

⁶⁰ "What are Mortgage Bonds?" EMF.

⁶¹ "Mortgage Bonds vs. Mortgage Backed Securities," EMF.

From the point of view of the investor, mortgage bonds have the same credit risk as the credit institution itself and represent a claim on the underlying mortgages. They are also subject to a strict legal framework. In the event of bankruptcy, there are legal provisions covering the asset pools created for the purpose of bond issuance, apart from the collateral assets that are exclusive to those pools, ensuring the cash flow stream for bondholders and timely payment.⁶²

Table 4.1.7 shows data on mortgage bonds issued in 1992, 1997 and 2002 (in millions of euros) in various countries.

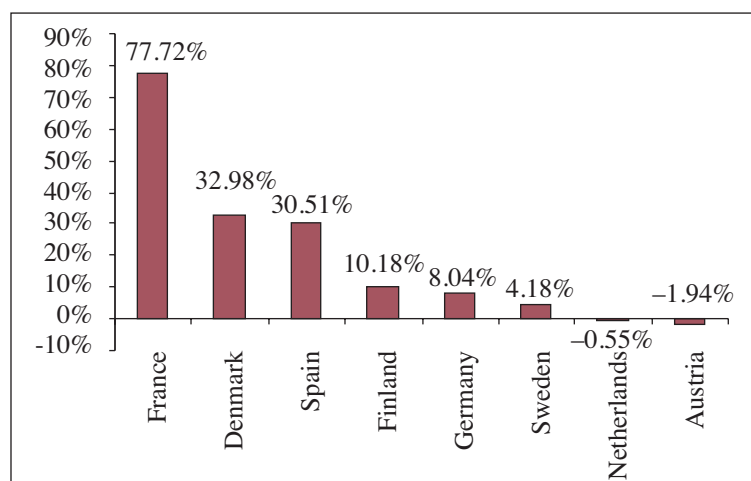
Table 4.1.7

Mortgage Bonds Issued (million euros)			
Country	1992	1997	2002
Denmark	11,704	33,926	76,063
Germany	21,904	41,596	40,857
Spain	1,433	2,194	n.a.
France	5,305	302	17,000
Netherlands	159	296	5
Austria	719	681	268
Finland	251	349	n.a.
Sweden	19,982	24,027	25,590
Norway	1,7094	731	2,311

Source: Hypostat; European Mortgage Federation.

Chart 4.1.8 shows the average year-on-year growth in mortgage bond issuance, 1992-2002.

Chart 4.1.8. Average Year-on-Year Growth in Mortgage Bond Issuance, 1992-2002



Source: Own elaboration based on Hypostat (EMF) data.

*Spain: data for 2001 and 2002 not available

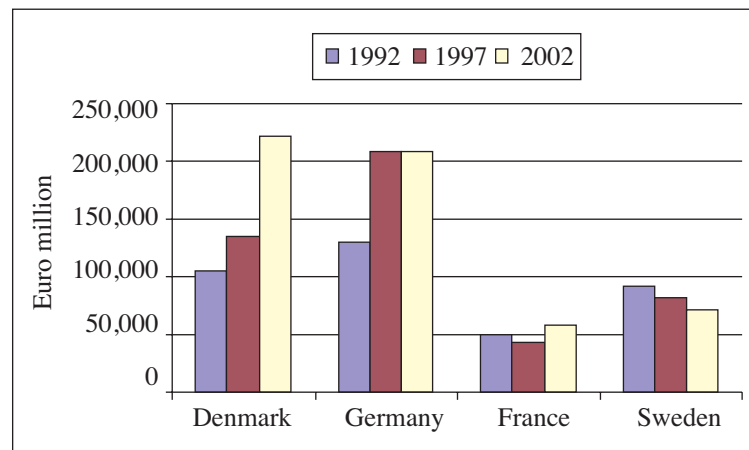
*Finland: data for 1999, 2000, 2001, 2002 not available

⁶² "Mortgage Bonds vs. Mortgage Backed Securities," EMF.

Average growth in mortgage bond issuance was extremely high in France, with a steep rise followed by a fall. The increase was most marked after 1998. After France came Denmark, Spain, Finland, and Germany, where growth in mortgage bonds was very low, considering that Germany has the longest-standing mortgage bond market in Europe. However, this finding is in line with the mortgage market as a whole and the overall economic situation in Germany during this period. Finally, Sweden, the Netherlands and Austria had negative growth in mortgage bond issuance.

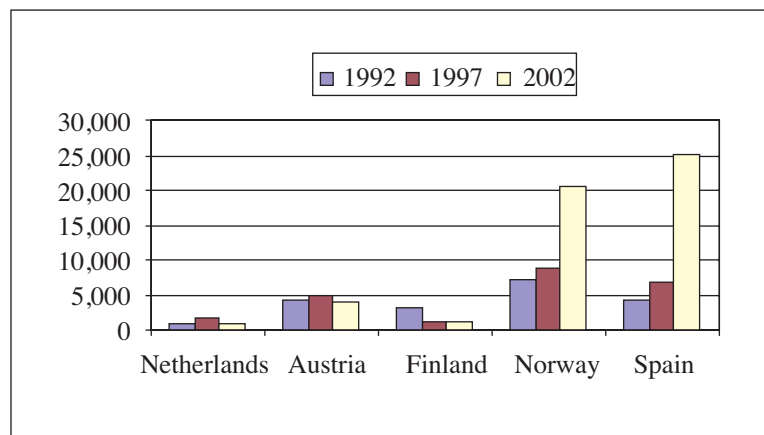
Charts 4.1.9 and 4.1.10 show the change in mortgage bonds outstanding based on data provided by Hypostat (European Mortgage Federation).

Chart 4.1.9. Mortgage Bonds Outstanding, 1992-1997-2002



Source: Own elaboration based on Hypostat (EMF) data.

Chart 4.1.10



Source: Own elaboration based on Hypostat (EMF) data.

*Data for Finland: 1992, 1997, 1998.

*Data for Norway: 1993, 1997, 2002.

The growth in mortgage bonds outstanding was particularly pronounced in Denmark, Spain and Norway. According to Hypostat, in Denmark “the value of bonds outstanding in 2002 was 11% higher than in 2001 and Danish mortgage bonds accounted for approximately 13% of all European mortgage bonds.”⁶³

In both charts we can see that the most important mortgage bond markets are Denmark, Germany and Sweden, although Germany has not had a major increase in mortgage bonds outstanding since 1997. Hypostat states that, “Although Germany has the lead in mortgage bonds outstanding in Europe, due to the weakness of the economy the value of mortgage bond issues fell by 7%. Nevertheless, there was an increase of 4% in the total value of mortgage bonds outstanding at the end of 2002.”⁶⁴

In Sweden, although Chart 4.1.10 shows a marked decline in mortgage bonds outstanding, mortgage bonds are still the most popular funding method. In June 2003, funding through bonds increased to around 65% (from 58% the previous year), due to the popularity of fixed-rate loans, which usually are bond-funded. The other funding methods are loans from credit institutions (20%) and short-term commercial paper (15%).⁶⁵

Behind Sweden we find France, where mortgage bonds outstanding decreased in 1997, only to increase again after 2000. The number of issues increased by 8% in 2002, raising the total volume of bonds outstanding by 35%.⁶⁶

The second chart shows that the Norwegian and Spanish markets are very similar and have developed very rapidly. By contrast, in Austria, Finland and the Netherlands growth has been negative.

According to data from an article by Raquel Lánder, published in *Expansión*, Spain ranks second in Europe in the mortgage bond market, with its *Cédulas hipotecarias*, and has scope to increase its market share. The growth of these securities in the Spanish market in 2003 was 71.3%, reaching 19.8 billion euros of bonds outstanding. Behind Spain comes France, with 15.4 billion euros of mortgage bonds in 2003⁶⁷. That is spectacular growth, considering that the trend in Europe as a whole has been the opposite and that 2003 saw a 22% decline in issues, bringing mortgage bonds outstanding to 174 billion euros. This decline was due basically to a slowdown in the real estate market, leading to a 30.5% fall in issues. Despite this, Germany still holds first place, with 132.6 billion euros of mortgage bonds outstanding in 2003.

4.2 Mortgage Securitization

Securitization is the process by which assets that have a cash flow stream are converted into marketable securities. “In the securitization process a package of assets is transferred to a special purpose entity and legally isolated, so that the cash flows generated by the assets can be used to make payments on the securities issued to investors.”⁶⁸ Securitization is a means of providing funding to the market by issuing securities whose

⁶³ Hypostat 1992-2002, EMF: Denmark.

⁶⁴ Hypostat 1992-2002, EMF: Germany.

⁶⁵ Hypostat 1992-2002, EMF: Sweden.

⁶⁶ Hypostat 1992-2002, EMF: France.

⁶⁷ “España, número dos en Europa en titulización y cédulas hipotecarias,” Raquel Lánder, *Expansión*.

⁶⁸ “La titulización de activos,” technical note FN-492, IESE.

payments are backed by the assets of the borrowing institution. Illiquid assets are thus converted into securities that can be readily marketed among investors. Companies use securitization to obtain financing through the issue of securities, segregating their assets into packages whose cash flows will be used to service the securities. The assets also serve as collateral, securing performance of the payment obligations assumed by the issuer⁶⁹.

The participants in the securitization process are⁷⁰:

- The originator/servicer, which is the entity that transfers the assets and that normally retains responsibility for servicing the assets.
- Special Purpose Vehicle (SPV), which is the entity to which the assets are transferred and which later issues the securities through an intermediary.
- The investors who buy the securities (asset-backed securities).

Apart from these three parties, a very important role is played by the independent rating agencies, which evaluate the credit quality and integrity of the securitization structure, thus providing an important service to investors and participants⁷¹.

For example, if an institution decides to securitize a set of mortgage loans, the payment flows from the loans are converted into payment flows to investors, corresponding to the principal and interest on the securities that are issued. Note that the payment flows from the loans may be uncertain, as there is the possibility of delinquency, whereas the payment flows to investors are considered to be certain. That is why each issue is subject to an examination to detect any possibility of non-payment by borrowers, so that any difficulty in making payments to investors can be resolved. Sometimes this involves buying an insurance policy.

The fund that a lending institution sets up in order to securitize its assets can be open-end or closed-end. Open-end funds are funds whose assets and liabilities can be changed after the fund has been constituted. They allow for the securitization of short-term and medium-term flows, which are very common in other financial systems⁷². Closed-end funds are funds whose assets and liabilities are fixed from the time of the fund's constitution. Mortgage securitization funds tend to be closed-end funds, although substitution and restructuring rules may be established in some cases, such as early repayment.

In European markets there are three types of securitization. In *on-balance-sheet securitization*, which is the type we saw in relation to mortgage bonds, the lending institution sets up a fund and then issues the securities; the assets remain the property of the issuer and remain on the issuer's balance sheet, along with the securities, which are shown on the liabilities side. *Off-balance-sheet securitization* is when the lending institution isolates the assets backing the issue from the rest of its assets by selling them to a special purpose vehicle, which then issues the securities. This is the type of securitization most common in the United States, where it was first invented. In fact, in Spanish it is also known as "American securitization." The main advantage of this type of securitization is that once the collateral assets have been isolated by transferring them to a separate entity, the risk of the

⁶⁹ Ibid.

⁷⁰ "Mortgage Bonds vs. Mortgage Backed Securities," EMF.

⁷¹ Ibid.

⁷² "La titulización de activos," technical note FN-492, IESE.

securities will depend exclusively on the risk of the assets themselves and not on the overall risk of the lending institution.

Depending on how the assets are transferred to the SPV, we can distinguish⁷³:

- “Pass through”: The isolated assets are transferred to a trustee specifically for the purpose of issuing the asset-backed securities.
- “Pay through”: The originator sells the assets to an SPV, which issues securities backed by what are now its own assets, carrying the mortgage loans among its assets, and the asset-backed securities among its liabilities. Consequently, neither the assets nor the securities remain on the originator’s balance sheet. The revenue stream that the SPV obtains from the sale of the securities is used to pay the originator, who thus replaces risky assets with liquid assets.

4.3 Mortgage-Backed Securities

As we said earlier, securitization emerged in the United States in the 1970s as a means of stimulating residential mortgage lending, and today has become one of the most important instruments on the capital markets. It started to be used in Europe in the early 1990s, although it did not really take off until between 1997 and 1998. Currently, credit institutions in numerous EU countries, and above all in the U.S., obtain finance by issuing mortgage-backed securities, which are the securities issued by SPVs in the securitization process.

But *what is the difference between mortgage-backed securities and mortgage bonds?* We shall now explain the issue process of mortgage-backed securities and point out the differences with respect to mortgage bonds.

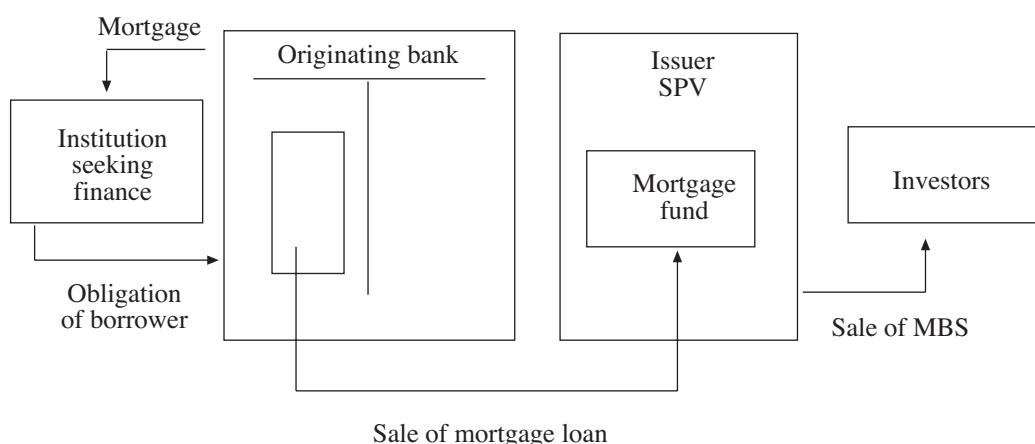


Chart 4.3.1. Issue of Mortgage-Backed Securities (MBS)

⁷³ “La titulación de activos,” technical note FN-429, IESE.

Source: “Mortgage Bonds vs. Mortgage Backed Securities” EMF.

First, the credit institution creates the SPV (Special Purpose Vehicle) and sells the mortgage loans to it so as to isolate these receivables and their associated cash flows from its other assets and allow it to make other adjustments such as restructuring cash flows, etc. The assets are thus transferred to the balance sheet of the SPV, which later issues the securities. Depending on whether the mortgages are residential or commercial, the SPV will issue residential mortgage-backed securities (RMBS) or commercial mortgage-backed securities (CMBS)⁷⁴. As we said earlier, despite selling the loans, the originating institution usually continues to service the loans, which involves collecting principal and interest payments and performing other tasks.

Mortgage bonds differ in that the loans are not transferred; instead the originating institution itself sets up the fund and issues the securities. On the one hand, the resulting securities have a strong guarantee because in the event of any problem, as well as being covered by the collateral assets, they are also covered by the originator’s other assets. This has a downside, however, in that the bonds are also subject to the originator’s business risk. With mortgage bonds, the credit institution retains responsibility for the bond’s credit risk until maturity, and also for prepayment risk, which means that the risk assumed by the investor is small (only market risk). And as the lower the risk, the lower the interest, the credit institution will be able to obtain funding at a fairly good price, which will enable it to grant further loans to its customers on advantageous terms.

MBS are different with respect to risk. On the one hand, they are not subject to the originator’s business risk, as they are held by an independent entity; on the other, because the originating institution transfers the credit risk, the early repayment risk and the market risk to the SPV along with the loans themselves, these risks are assumed by the investor, who will naturally require much higher rates of interest than on mortgage bonds.

While mortgage bonds are backed by the originator, as bondholders have recourse against the underlying assets, and also are highly regulated by law, MBS are quite different. When an investor decides to buy a mortgage bond, she considers the issuer’s credit standing, business strength, etc., whereas an investor who buys mortgage-backed securities will not consider the originator’s standing but will base her decision on her own judgment as to whether the underlying assets are capable of generating a cash flow sufficient to meet the payment obligations on the securities, and the degree of protection built into the structure of the securities or the quality of the guarantor⁷⁵.

Table 4.3.2, produced by the EMF, sums up the differences between mortgage bonds and mortgage-backed securities.

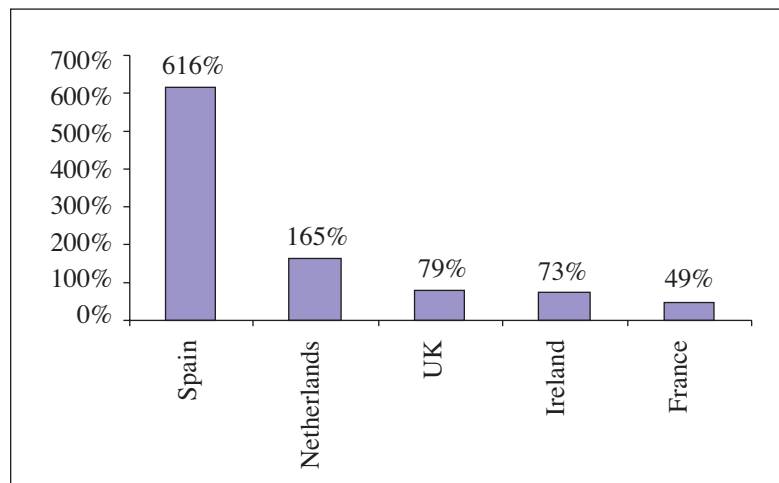
⁷⁴ “Mortgage Bonds vs. Mortgage Backed Securities,” EMF.

⁷⁵ “Mortgage Bonds vs. Mortgage Backed Securities,” EMF.

Table 4.3.2. Differences Between Mortgage Bonds and Mortgage-Backed Securities

Criteria	Mortgage Bonds	Mortgage-Backed Securities
Mortgage bond production	Bundled process	Unbundled process
Type of securitization (balance sheet treatment)	Assets remain on the balance sheet of the originating institution (“on-balance-sheet securitization”)	Generally, assets are removed from the balance sheet of the originating institution (“off-balance-sheet securitization”)
Source of principal and interest payments	Issuer cash flow	Collateral cash flow
Risk exposure: - Credit risk	Issuer	Investor
- Prepayment risk	Issuer	Investor
- Market risk	Investor	Investor
Investor protection in event of issuer bankruptcy	Bankruptcy privilege: The bondholder has a priority claim on assets in the event that the issuer goes bankrupt (quasi-bankruptcy remoteness)	Bankruptcy remoteness is built into the structure of the MBS (bankruptcy of the originating institution does not affect the servicing of the MBS)
Credit quality	In addition to the asset quality, it depends mainly on the strength of the originating institution and the legal framework	In addition to the asset quality, it depends mainly on the strength of the structure created
Over-collateralization	Defined by law	Usually required for a high credit rating
Tiered capital structure	Subordination is inherent in the system (e.g. requirement to respect certain LTV ratios)	A structure distinguishing between senior and subordinating securities needs to be created
Guaranty	A guarantee (if given) will be provided by the originating mortgage credit institution	Guaranty provided by a third party such as an insurance company or a bank (“credit enhancement”)
Collateral pool structure	<ol style="list-style-type: none"> 1. Individual components of the asset pool are substitutable 2. Mainly heterogeneous assets 3. Eligible assets defined by law (requirement to respect certain LTV ratios and sound property valuation methods) 	<ol style="list-style-type: none"> 1. Individual components of the asset pool are (in general) not substitutable 2. Mainly homogeneous assets 3. Eligible assets are not necessarily defined by law
Interest payment	Typically yearly	Typically monthly
Principal redemption	Bullet form	Amortization and prepayments

Source: EMF, “The economic & financial importance of mortgage bonds.”

Chart 4.3.3. Average Growth of MBS Issues, 1992-2002

Source: Own elaboration based on EMF data.

* Data not available on MBS issued:

Spain: 1992, 2001, 2002.

France: 1992, 1993, 2000, 2001, 2002

Ireland: 1992, 1993, 1994, 1995, 1997, 2002

Netherlands: 1992, 1993, 1994, 1995.

UK: 1995, 1996.

The strongest growth was in Spain, where the first mortgage-backed securities were issued in 1993. The growth was continuous, with the exception of 1996, when hardly any MBS were issued (although the market recovered in 1997), and of 2000, when there was another decrease. This strong growth of the securitization business has been linked to the steady development of the real estate market in Spain and the increase in the volume of mortgages. Credit institutions have found securitization to be an efficient way to raise funds and develop their business.

After Spain comes Holland, which has seen steady growth in securitization since 1996, followed by the United Kingdom, Ireland and France. Although the growth in the United Kingdom was not as great as in Spain or Holland, it is still the largest market in terms of volume of issues. The UK market continues to grow, but more slowly, perhaps because it is already a highly developed market, whereas Holland and Spain are still in the early stages of growth.

Chart 4.3.4 shows some statistics on recent issues (arithmetic average of MBS issued).

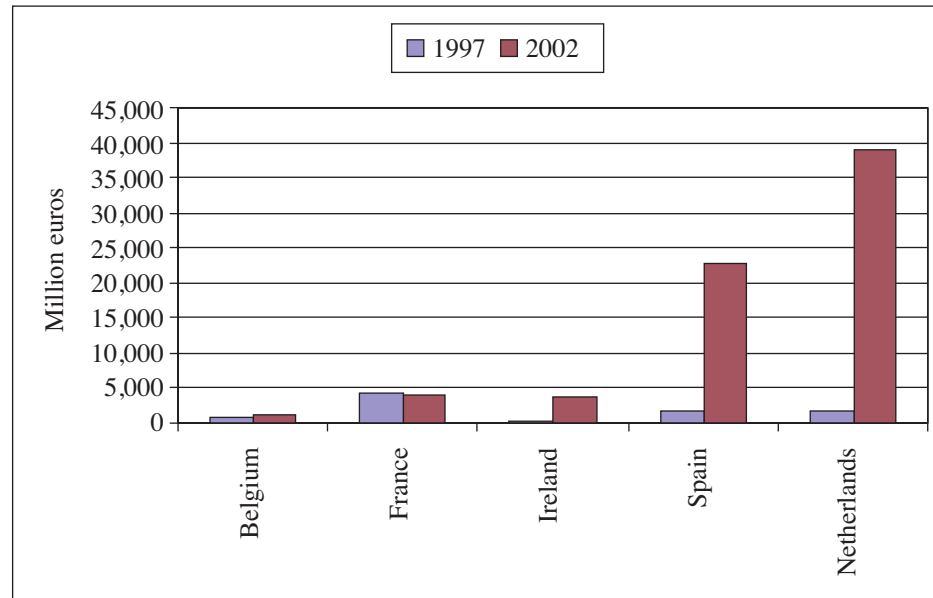
**Chart 4.3.4. Mortgage-Backed Securities Issued (arithmetic average)
(In million euros)**

	1992-1997	1997-1999	2000-2002
Spain	363	3,501	3,059
France	1,030	2,737	0
Ireland	254	829	1,829
Netherlands	227	2,042	11,404
UK	1,610	4,828	25,842

Source: Own elaboration based on Hypostat (EMF) data.

Chart 4.3.5 compares the outstanding balance of MBS in 1997 and 2002.

Chart 4.3.5. MBS Outstanding, 1997 and 2002



Source: Own elaboration based on Hypostat (EMF) data.

Unfortunately, we do not have any data for the United Kingdom. The chart shows rapid growth in all countries, except Belgium. Although we can see a slight decrease in France, the growth over the period 1992-1997 was a spectacular 4.23 billion euros. The most recent data, from 2003, show that Spain, besides holding second place in the mortgage bond market, also ranked second in the MBS market. However, it is still a long way from the volumes sold in the United Kingdom, the undisputed leader in this market⁷⁶.

In 2003, in Europe as a whole, the volume of issues hit a record high, beating 2002's total of 157.7 billion euros to reach 217.7 billion. What is particularly interesting is that, looking at quarterly results, we see that the last quarter of 2003 saw sales of 82.4 billion euros, more than twice the volume in the previous quarter (39.7 billion), and 49.5% more than in the same quarter the previous year⁷⁷. This dramatic growth is due mainly to low interest rates, which prompted investors to look for assets that offered higher returns without excessive risk. At the same time, the outlook for companies' financial health and credit quality favored the growth of the securitization market, which has become a major driver of the economy, with annual growth of around 60%. Sales of asset-backed securities are expected to reach 235 billion euros in 2004⁷⁸.

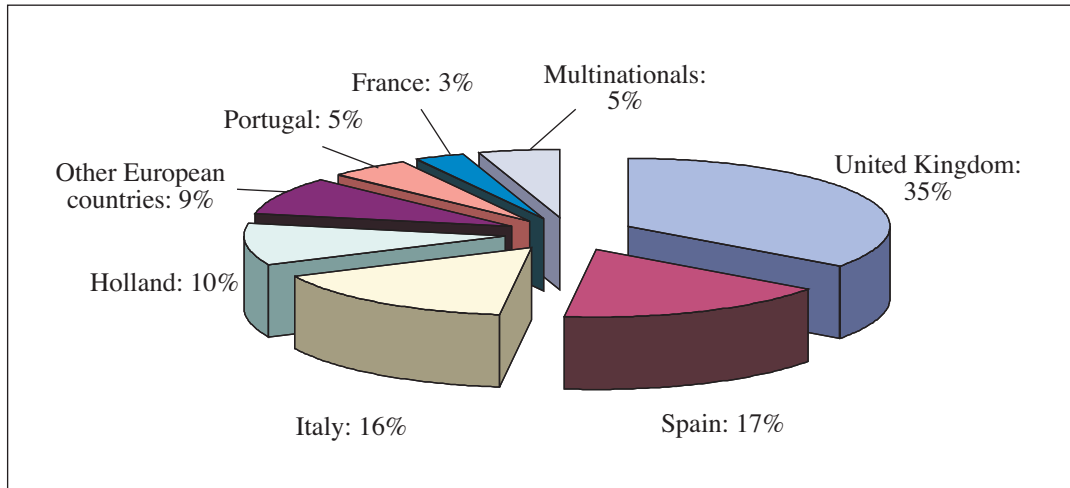
Chart 4.3.6 shows the market share of the mortgage securitization market of the different European countries in the last quarter of 2003.

⁷⁶ "España, número dos de Europa en titulización y cédulas hipotecarias," Raquel Lánder, .

⁷⁷ Ibid

⁷⁸ Ibid.

Chart 4.3.6. Share of European Securitization Market, 2003



Source: Dealoli Bondware, Thomson Financial Securities Data.
Expansión, Raquel Lánder, April 13, 2004.

As we can see in the chart, the United Kingdom is undisputed leader in this market, with a share of 35%, followed by Spain, with 17.4%, representing issues worth 37.8 billion euros, compared to just 11.8% in 2002. Close behind Spain comes Italy, with a 16% market share, and Holland with 10%. In the second quarter of 2003, Spain set the record, with 8.7 billion. According to Hypostat, “In the Netherlands the number of MBS issued increased significantly in 2002 at the expense of mortgage bond issues. In addition, the decline in the stock market meant that there was some switch of savings into retail sources, which again became available for mortgage funding.”⁷⁹ In Sweden, in 2002 and 2003 there was a great deal of securitization by mortgage lenders, with 2.5% of mortgage loans being securitized in 2002.⁸⁰

5. The Integration of European Mortgage Markets

According to Judith Hardt, secretary general of the European Mortgage Federation, and Cristina Costa, in their study “The Challenges of Developing Housing Finance in Europe,” there is no single model of housing finance in Europe that could be imitated. Diversity is the rule in the European real estate market, despite having been subject to regulation for many years. The different tax regimes, laws and cultural characteristics of each country have produced a multiplicity of different mortgage products with different costs and prices⁸¹.

⁷⁹ Hypostat 1992-2002, EMF: Netherlands.

⁸⁰ Hypostat 1992-2002, EMF: Sweden.

⁸¹ “The Challenges of Developing Housing Finance in Europe – Are There Lessons to be Learned?” Judith Hardt and Cristina Costa, EMF.

At present, real estate agents, property rights, taxes and subsidies are all regulated at national level. Consequently, everything to do with mortgage lending is beyond the authority of the European Union. Once a year, the ministers of industry of the different countries meet to exchange ideas, focusing mainly on social housing. The European Union also tries to influence mortgage lending indirectly through regulations on bank and consumer solvency, as well as through the European Code of Conduct, which standardizes consumer information and helps future borrowers to make comparisons between products⁸².

In addition, within the framework of the Financial Services Action Plan, the President of the European Commission, Romano Prodi, pointed out in 2002 the importance of the mortgage markets as one of the keys to progress towards more integrated financial markets. That is why in November 2003, the European Mortgage Federation, in collaboration with Mercer Oliver Wyman, carried out a study investigating the state of the mortgage industry and the potential for greater integration.

In this joint effort, they identified the benefits to be obtained from greater integration and the barriers to such integration. The European Mortgage Federation is looking for solutions to overcome those barriers, make mortgage lending easier for financial institutions, reduce the cost of mortgage finance, and above all stimulate cross-border lending.

Judith Hardt affirms that another important channel for integration would be to improve access to funding from the capital markets, which is something that the European Commission is sure to consider. It would greatly facilitate the establishment of product standards across Europe and would thus significantly reduce mortgage costs, allowing the creation of a secondary mortgage market in Europe. As financial institutions achieve reductions in their cost base and improve their efficiency, they will gain access to larger markets and will be able to obtain economies of scale. As a result, they will be able to offer consumer mortgage products at lower prices. Consumers will also benefit from greater integration through access to a more complete range of mortgage products. With integration, countries that currently have a more limited range will be able to access products from other countries and thus have more choice.

As Judith Hardt and Simon Wally, Head of Economic Affairs of the European Mortgage Federation explain, despite the fact that in some countries the demand for new mortgage products exists, those gaps are not covered by financial institution for a variety of reasons, often legal. In Spain, for example, the law allows early repayment of fixed-rate loans, which gives consumers great flexibility but causes serious losses to banks when consumers prepay their loans at a time when interest rates have fallen considerably. That is why fixed-rate products have almost disappeared in Spain, because they are very expensive for the consumer.

The conclusions of the above-mentioned study will be presented by the European Mortgage Federation at the Forum Group on Mortgage Credit, proposed by the European Commission, at which all the market players will meet to discuss possible solutions towards greater integration of the mortgage markets. So far, three channels have been identified that could enhance Europe-wide integration: an increase in cross-border loans; an increase in cross-border insurance; and greater market concentration, allowing lenders to grow in size⁸³.

⁸² "The Challenges of Developing Housing Finance in Europe – Are There Lessons to be Learned?" Judith Hardt and Cristina Costa, EMF.

⁸³ Forum Interview: European Mortgage Federation.

With respect to cross-border lending, the European Commission has created a new directive to replace the 1987 one, permitting a considerable increase in loans between EU countries. However, mortgage loans do not come under this directive, as they are covered by the European Code of Conduct. All the same, many new types of mortgage loans have evolved, such as equity release mortgages in the United Kingdom, which the Commission has said it wishes to include in this directive, against industry opposition based on the argument that it may jeopardize market flexibility. The final decision will not be taken until the new European Parliament is formed in 2004.

The creation of the Forum Group on Mortgage Credit is merely the start of a long process in which both the costs and the benefits of integration will have to be studied. For the time being, however, the European Union has no intention to regulate mortgage lending at European level.

Creating a European mortgage market is no easy task for national governments. Certain measures that have been taken, such as the new directive, and transparency-related measures such as the unification of consumer protection guidelines (European Code of Conduct), are steps towards the goal, but they still fall well short of integration, as they do not remove the barriers.

The main findings of the “Study on the Financial Integration of European Mortgage Markets” are as follows:

- Differences in mortgage prices between countries are largely due to product differences. Those differences are due to structural factors such as market size, product cross-subsidies, regulation, and the absence of efficient funding mechanisms.
- In most countries there are gaps in terms of product range and the range of borrowers served. These gaps are due to regulation, consumer preferences, taxation, and other structural factors.

According to Mercer Oliver Wyman and the EMF, the benefits of integration are:

Benefits of improved efficiency and completeness of mortgage markets⁸⁴:

- *Efficiency gains:* Reductions in servicing, distribution, origination and funding costs could deliver benefits of 0.15%-0.30% of EU residential mortgage balances.
- *Completeness gains:* Closure of observed gaps could result in a market expansion of up to 10% and increased consumer benefit for up to 25% of mortgage borrowers.

These benefits would be at both national and EU level.

Benefits of integration⁸⁵:

- *Benefits for consumers:* Mainly, greater product choice and lower prices. Increased cross-border lending and removal of barriers to foreign entry would

⁸⁴ “Study on the Financial Integration of European Mortgage Markets,” Mercer Oliver Wyman and EMF.

⁸⁵ Ibid.

act to close many of the observed gaps. This could mean access to mortgage finance for those segments not currently served, as well as provision of products more closely aligned with borrowers' needs. To the extent that lenders reduce costs, these are likely to be passed on at least partially to consumers in the form of lower mortgage rates, as competition between lenders would limit levels of return.

- *Benefits for lenders:* The creation of a deeper, more liquid secondary market in mortgage debt would act to lower funding costs. Reductions in credit and risk management costs could also accrue from diversification and scale as lenders develop cross-market asset portfolios. Lower servicing costs may result from greater lender and servicer scale via the creation of multi-national lenders and servicers. Finally, the European mortgage industry as a whole would also benefit from greater integration, as it would allow capital to flow where it can be used most effectively.

These benefits would be achieved through:

- Entry into foreign markets through increased cross-border lending.
- Entry into foreign markets through mergers and acquisitions.
- Asset transactions through the creation of MBS and mortgage bond portfolios containing assets from multiple markets.

*Barriers to integration*⁸⁶:

Most of the barriers are caused by differences in national legislation and market conditions.

- Entering the market is likely to be unprofitable in many markets and only marginally profitable in the others. The level of returns is a key indicator of the level of foreign entry in a market.
- The difficulty in obtaining good quality information on foreign markets and underwriting information on customers.
- Access to distribution: Most markets are dominated by branch and tied distribution, often making it difficult for a foreign entrant to achieve any significant market share.
- Regulatory and tax differences that discriminate against foreign lenders.
- The inability to transfer loans from one lender to another in some markets blocks the creation of multi-national loan portfolios and the use of instruments such as mortgage-backed securities.
- Government intervention in mortgage markets via takeover policy or housing policy, which is closely linked to the residential mortgage market, can act to deter foreign lenders from entering new markets.

⁸⁶ Ibid.

Following this study, the next step will be to decide what policies at national and European level will be most likely to achieve the benefits of integration.

European Mortgage Finance Agency (EMFA)

A very important development in this respect is the creation in November 2003 of the European Mortgage Finance Agency (EMFA), based on the U.S. Freddie Mac and Fannie Mae, two of the U.S.'s largest financial institutions, which make a unified, liquid and publicly backed secondary market in mortgage securities. Fannie Mae and Freddie Mac are Special Purpose Vehicles that purchase mortgage loans and also have the backing of the Congress of the United States. Thanks to them, the secondary market for mortgage securities in the U.S. has developed enormously, even though at the end of 2003 their securities fell by around 3.5%⁸⁷.

The EMFA has been set up to create a single, pan-European mortgage market. It has been created by the following institutions:

- Spanish bank BBVA
- French bank Crédit Agricole
- Portuguese bank Banco Comercial Português (BCP)
- British bank Northern Rock
- Irish bank Irish Life and Permanent.

The agency remains open to new members, and in fact 12 banks from countries including Holland, Germany and Italy are considering joining it. The aim in setting up the EMFA is to create a single mortgage securitization market from which lenders will be able to obtain funds to finance new, better quality loans on better terms. This is to be achieved through standardization of products, processes and guarantee systems. Another important goal is to promote long-term, fixed-rate loans without prepayment fees, which will be much safer than the variable-rate loans subject to constant changes in interest rates that currently predominate in Spain and the United Kingdom in particular. This new market will be funded with private capital but will have the backing of the EU. Thanks to this new institution, lenders will not depend for funding exclusively on customer deposits, above all because of the risk entailed in the growing indebtedness of European households.

The EMFA states that, “The creation of a secondary market will allow credit institutions in each country to access the same type of financing on the same terms, which will contribute to the growth of the European mortgage security market. The goal is to ‘revolutionize the way mortgages are financed in Europe’.”

Furthermore, according to Olivia Fontanillo, writing in *Expansión*, “the agency also pursues social objectives, as it is considering the possibility of buying mortgages from lenders in countries in difficulties, and the establishment of financing programs for consumers and markets in poor economic circumstances, and for social housing.”

⁸⁷ “Cinco Bancos de la UE crean un mercado paneuropeo de titulización hipotecaria,” Olivia Fontanillo, *Expansión*.

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