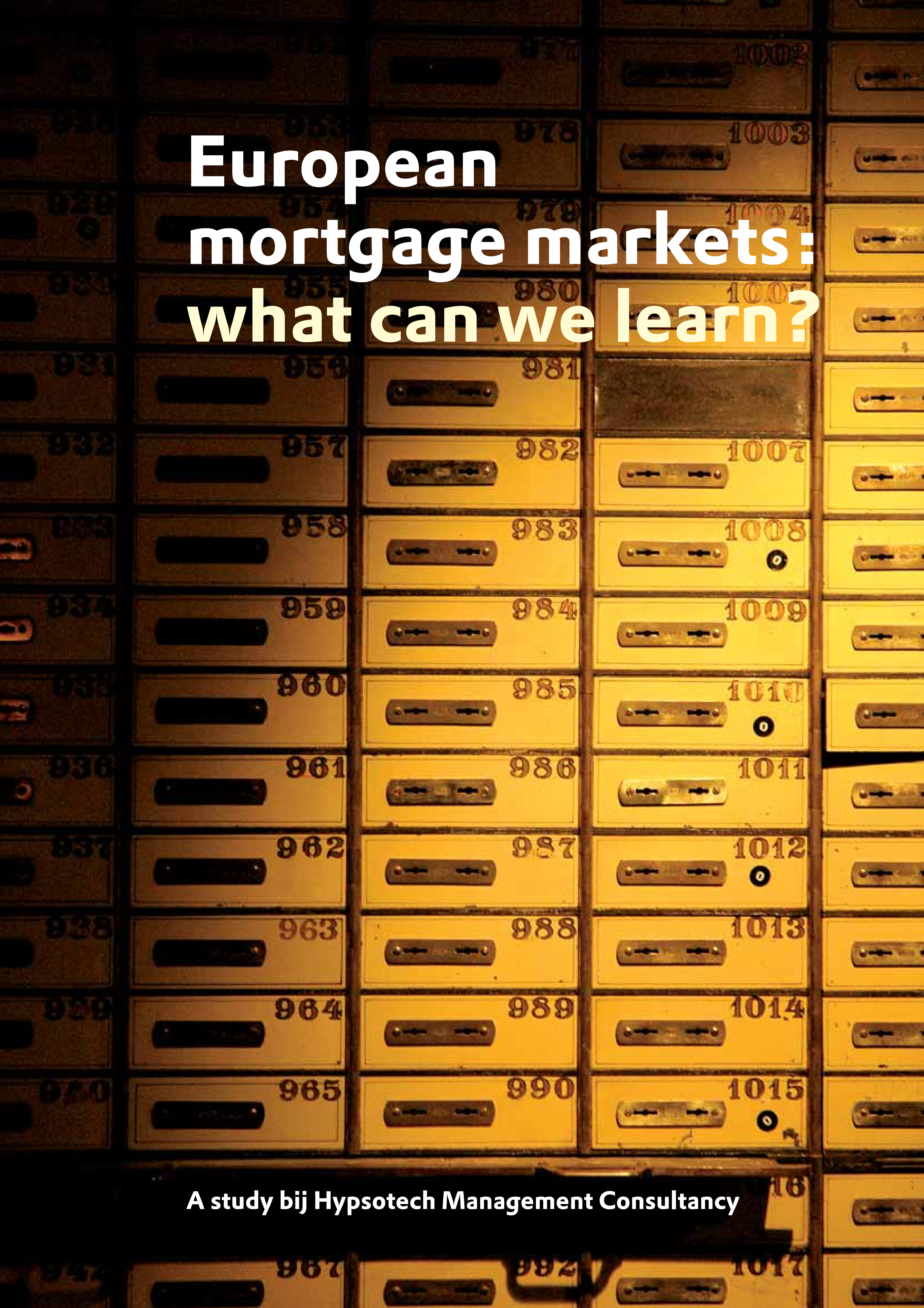
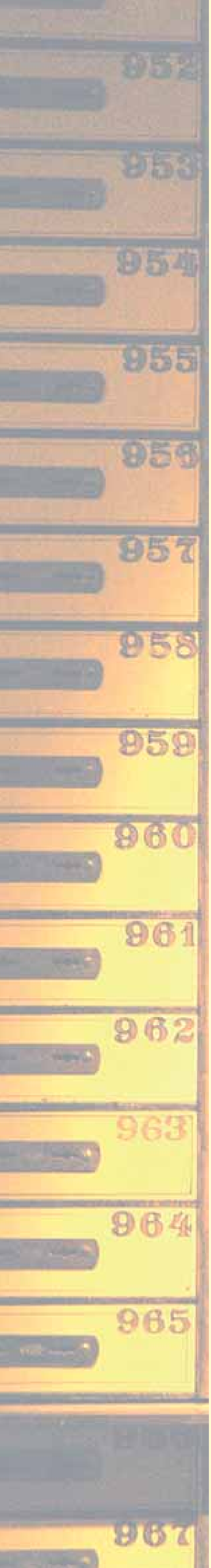


European mortgage markets: what can we learn?

A study bij Hypsotech Management Consultancy


952
953
954
955
956
957
958
959
960
961
962
963
964
965
967

Foreword

Dear clients and colleagues in the mortgage market,

I am delighted to present to you Hypsotech's study: European Mortgage Markets: What Can We Learn? This study is executed to celebrate the fifth anniversary of Hypsotech Management Consultancy. The results of the study are presented on the special conference about the same topic, on the 18th of may 2006.

During engagements with our clients in the last five years, we learned that knowledge about other European mortgage markets is not well developed among our Dutch clients. Although today's mortgage markets have a strong local focus, we think everyone can always learn from other markets and experiences.

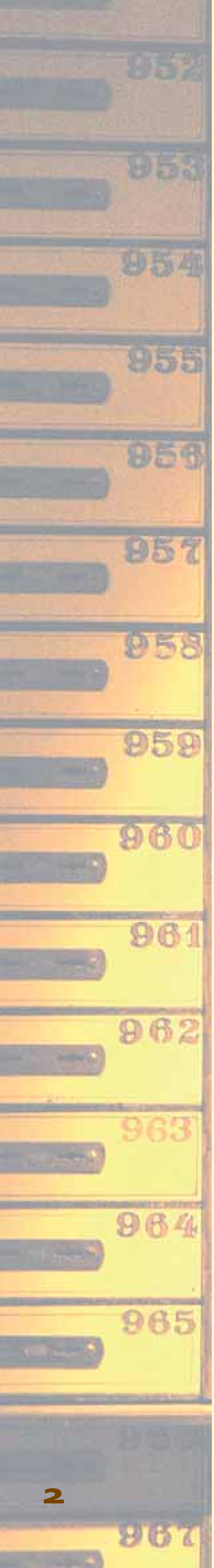
This study gives an overview of a number of European mortgage markets. After describing the markets we ask the question: what can we learn? Are there products, processes or other aspects of mortgage markets that can be used, or that are useful, in the Dutch market? We have identified a number of interesting observations which we want to share with you. It has to be acknowledged that this study is not limitative and that there are probably more challenging opportunities.

You can see this study as a first step in the process of getting more familiar with practises around Europe. We encourage all of you to look for more observations and best practises that will grow and prosper your mortgage business.

I hope you find this study useful and informative,

Tom van der Geest

Managing director
Hypsotech Management Consultancy



Foreword	1
Introduction	3
The Dutch mortgage market	5
Products	7
Distribution	9
Processing	10
The UK mortgage market	13
Products	14
Distribution	15
Processing	15
The Belgian mortgage market	17
Products	18
Distribution	19
Processing	19
The German mortgage market	21
Products	22
Distribution	23
Processing	24
The Danish mortgage market	25
Products	26
Distribution	27
Processing	28
The Swedish mortgage market	29
Products	30
Distribution	31
Processing	31
Observations	33
Final thoughts	39
Reference list	40

Introduction

This study gives an overview of several European mortgage markets and discusses observations within those markets from the perspective of the Dutch mortgage market. With this study we want to contribute to raise the knowledge level of mortgage professionals within the Netherlands with regard to European mortgage markets. We further hope this study will stimulate the exploration of opportunities, that are based on experiences and lessons learnt from other markets.

Keeping these aims in mind, we have selected a number of markets for this study that are geographically close to the Netherlands and contain interesting aspects. We selected the following countries:
- The United Kingdom
- Belgium
- Germany
- Denmark
- Sweden

For each of these countries, the following aspects are analyzed:
- Product range
- Distribution
- Mortgage processing

As there already have been numerous studies on the European markets, this research does not aim to hand a holistic view of all markets. This study however, looks at the European market from the perspective of the Dutch market in order to identify interesting observations.
To start with, the Dutch mortgage market is assessed focussing on the three aspects formulated above, supplemented with a short description. For the other mortgage markets contained in this study a similar format is used. Flowing from this, the observations in each market are analyzed and discussed in perspective of the Dutch market. This study ends with some final thoughts and conclusions.

It has to be stressed that the observations are made in respect of the Dutch mortgage market solely. The idea is to learn from other markets without the aim to enter these markets for the players present in the Netherlands.

In addition to the above, it has to be noted that the 'Merrill Lynch Guide to International Mortgage markets and Mortgage Backed Securities' (2003) has been used often as data source in the completion of this research. Besides this source, also the publications 'Risk and Funding in European Residential Mortgages: Responding to Changes in Mortgage Demand' (2005) and 'Study on the Financial Integration of European Mortgage Markets' (2003) by Mercer Oliver Wyman are used as references.

The Dutch mortgage market

In the Netherlands the mortgage market is largely influenced by the increased prices of real estate, combined with a decrease of interest rates in the last 20 years. Also tax regulation made it more sensible for consumers to engage in mortgage borrowing. Further, the number of available products is quite large and is mostly driven by the Dutch tax regulation; this created a need for extensive advice to consumers, which resulted in a large intermediary market.

From the perspective of mortgage lenders the question is how to compete given these market characteristics: e.g. to what degree should they specialize and/or diversify? All these aspects interact and are subsequently explained; first however, the dynamics of the house prices and the degree of competition in the Dutch market are given.

A major characteristic of the Dutch market has been the average height of principal balance hitherto. This is mainly caused to the following reasons: firstly, mortgage loans in the Netherlands have been the basis for tax deductions, and secondly, there has been a constant and significant rise in housing prices since halfway the 1980s[1]. In the publication by the Netherlands Bureau for Economic Policy Analysis (2005, nr. 81), it is concluded that housing prices rose as a result of two explaining variables, i.e. residents' financial capacity and the shortage on the Dutch housing market. In figure 1 it is shown how the tax deductibility, the house prices, and the height of the mortgage loans interact [2]:

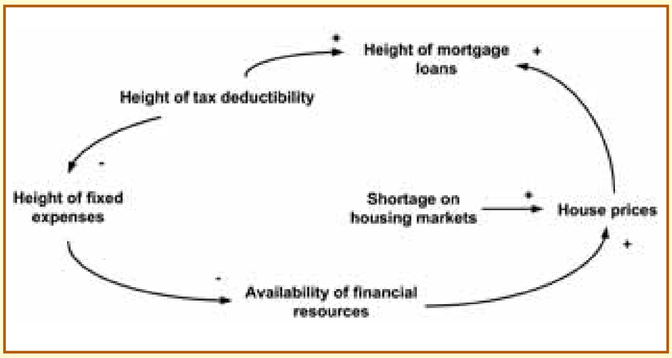


Figure 1: Overview of influences on mortgage loan height

1 See the Dutch National Land Registry: Kadaster (www.kadaster.nl) and the Netherlands Bureau for Economic Policy Analysis (www.cpb.nl).

2 See for further information on modelling relations: http://www.systemdynamics.org/

From this overview, which does not include all variables having an influence on the height of the mortgage loans, it can be observed that the tax system in the Netherlands has a major influence on the total Dutch mortgage market. This system however, is not likely to last long, as the Dutch government has already begun to cut back some tax advantages related to mortgage loans. In the not too distant future, approximately 10 to 15 years, it is expected that the tax deductibility will be abolished. This can have major implications for the future Dutch mortgage market, like has been the case in Sweden (see section of Swedish market).

As a result of the above, the Dutch mortgage-to-GDP ratio was 111% in 2004, being among the highest levels in Europe. Furthermore, like in other European mortgage markets, the profit gained from doing business in this market is not excessive with an estimated average return of 33bp as a percentage of outstanding capital. This is also reflected by the steady decrease in average mortgage interest rates from 7.5% in 1993 to 4.0% in 2006 [3]

The entry of intermediaries in the market, which increased both competition and transparency, has led to lower interest rates; this itself has led to an increased incentive to refinance after taking into account the prepayment penalty. In 2004 around 25% of the total amount of new mortgage loans has been refinanced, whereas this rose to around 40% in 2005.

Currently, the level of competition for market leadership between the top 3 players in the Netherlands is high. In February 2006, the combination of ING subsidiaries overtook the Rabobank as the market leader in mortgage lending. Nevertheless, the Dutch mortgage market is relatively concentrated with the accumulated market share of the top 5 being over 70%.

The following figure is composed to show the interrelationships between the aspects mentioned above:

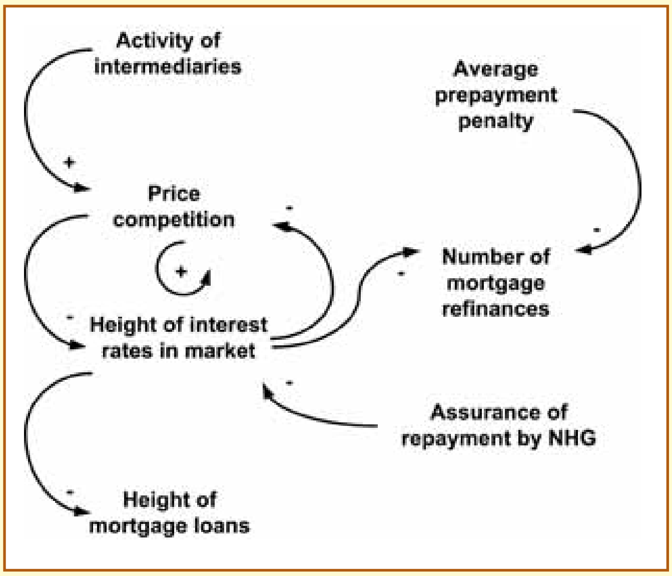


Figure 2: *Overview of relations in which price competition and the height of interest rates form a positive enforcing feedback loop.*

3 Source: Dutch Central Bank (www.dnb.nl)

De Nederlandsche Bank (DNB) mentions in their statistical bulletin of September 28th 2005 that as a result of the present low interest rates, the tendency of residents rises to choose long-term fixed rates.

NHG

National Mortgage Guarantee (NHG) is a garantee that adds to the credibility of borrowers for lenders. The NHG assures lenders that in case of foreclosure the full debt will be repaid even when the collateral is sold for less than the amount of the (residual) debt. This situation may occur when the borrower is not able to afford the mortgage payments due to reduced income.
About 50% of the dwellings for which the purchase amount is below €250,000 (condition for eligibility NHG), are financed by NHG, and the interest advantage for the customer can be as much as 0.6%. The NHG mentions that in 2005 this trend has become even stronger with an increase of 20% relative to 2004, it is also noted that two thirds of the buyers of dwellings below €240,000 financed it by use of NHG.
In sum the NHG has increased the availability of mortgage products to a wider range of borrower segments. This effect takes place because of the decrease in risk of mortgage borrowing for both lender and borrower when the NHG is related.

Products

In the Dutch market, borrowers can choose from a wide variety of mortgage constructions:
- Loans with a fixed rate for the whole maturity date.
- Loans with continuously varying rates.
- Loans with a reset.

The choice of what interest type is preferred by borrowers depends on the consideration of the height of the periodical expenses on the one hand and the interest risk on the other, combined with personal characteristics. Besides the types of interest rates, a major distinction between these constructions is the question whether or not the principal has to be repaid prior to the maturity date of the mortgage loan.

A causal relation can be assumed with the Dutch fiscal system: due to regulations aimed at mortgage interest rate relief, the borrowers are less likely to repay the principal. Mortgage lenders however wish to have an assurance of repayment of the mortgage loans at the maturity date. Thus, mortgage constructions are aimed both at maximal tax deductibility for the borrower and repayment assurance of the lender. Therefore, interest-only mortgage loans are often combined with saving instruments like investment portfolios or life insurances.

Classification of Dutch mortgage market based on repayment methods:

Interest and principal repayment mortgages:	Saving to repay at maturity date:	Interest payments only:
Annuity mortgages	Savings mortgages	Interest-only mortgages or bullet mortgages
	Life insurance mortgages	
Linear redemption mortgages	Investment mortgages	
	Hybrid savings and investment mortgages	

***Figure 3:** The mortgage products available in the Netherlands based on repayment typology.*

In the general overview of the Dutch market it is noted that there are two main factors influencing the height of the loans, i.e. the tax deductibility of the mortgage interest and the house prices. The foreclosure value is related to the house prices but also to the specific condition of the collateral: for newly built houses the foreclosure value is 90% of the market value and for existing houses it generally is 80 to 85%. In the Netherlands the LTV[4] can run up to 125-135%, which is relatively high in comparison to most countries. Some of the reasons for the increase of the LTV in the last decade, are the earlier mentioned tax deductibility of interests paid over mortgage loans, and the NHG that yields lower credit risk for lenders.

Also the specific characteristics of the background of the borrower play a major role in determining the individual LTV: the job security and the fixed expenses are important[5] as is the delinquency registration at the Dutch credit bureau (BKR). Also, the income-to-debt ratio plays a role in determining the LTV. Nevertheless, the personal health situation plays a less important role. Below in figure 4 an overview is given:

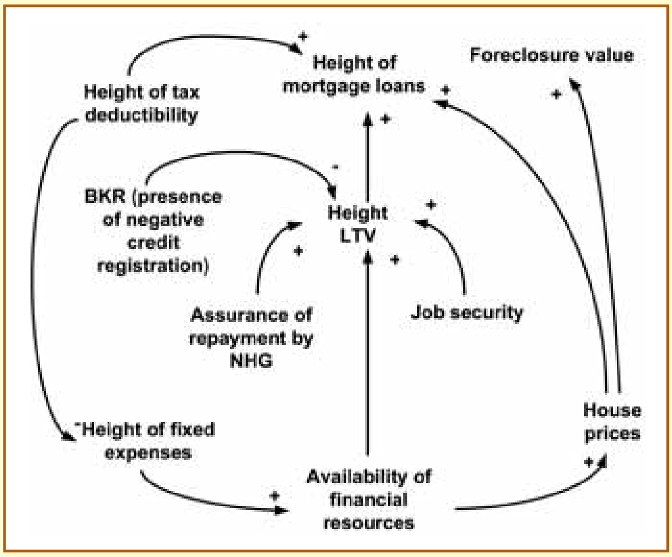


***Figure 4:** model of the variables having a major influence on the LTV in the Netherlands.*

4 The LTV in the Netherlands is actually detemined on basis of the foreclosure value, thus the abbrieviation LTfV would here be more suitable. For means of consistency the term LTV is used for all markets.

5 Source: Dutch mortgage intermediary De Hypothekers Associatie BV, AKA De Hypotheker

In respect of LTVs the latest trend in the Netherlands has been a more conservative approach for mortgage lenders when determining the LTV. This is done to make consumers less vulnerable to changes in interest rates. Especially the mortgage loans with the highest LTV ratio (the so-called Tophypotheken) constitute higher risks. This boils down to that LTV ratios in general are likely to be lower from now on in the Netherlands. Apart from the LTV, there are other aspects of mortgage products that are relevant for the consumer. For instance, the fixed interest period (rentevaste periode) and other additional facilities, like interest caps and floors, relate to the interests of mortgage loans.

Further also the calculated risk of a borrower will often correlate strongly to the interest of a mortgage. It has to be noted that risk-based pricing (RBP) is presently only in a preliminary stage in the Netherlands. At this moment the sub-prime and non-conforming mortgage market is emerging in the Netherlands similar to the UK.

RBP yields those lenders that are able to calculate more correctly a competitive advantage. Therefore, this pricing method is likely to be an effective innovation for competing in the Dutch market. Borrowers with a higher risk profile will prefer lenders that calculate their risk less realistically, for the reason that their interest rate will be lower eventually. Consequentially the portfolio of the less sophisticated mortgage lenders would gradually deteriorate.

Finally, operational costs can be cut by offering standardized simple products. In this class of products, underwriting criteria are strict and the degree in which the product can be customized tends to be low for the sake of standardization. In return, the interest rate of the mortgage loan can be set lower for consumers; for the price-sensitive borrowers focussing mainly on interest rates this is an attractive option. In the Dutch market Argenta and Direkt Bank are examples of lenders offering these type of mortgage loans

Distribution

In the study of Mercer Oliver Wyman and the EMF (2003), the distribution of mortgages in the Dutch market has been indicated to make available a broad range of products and services. As a consequence, the market is complex and therefore more advice is needed by borrowers for making a well-balanced choice. This need itself is then shown in this study to lead to three further consequences: In the first place, the introducer channel becomes more important for bringing the products to the market-place; secondly, the costs incurred by distributing the products are higher; and thirdly, the need for information leads to more additional regulation.

The intermediaries have gained power in the last years, due to their critical position in the market. Especially the role of the large distributors (e.g. mortgage chains, packagers) has become relevant for bringing products to market. The top 5 mortgage chains and packagers (inkooporganisaties) distributed around €18bn of new mortgage over 2005. This makes up one-third of total mortgages sold in the Netherlands over 2005 in the broker channel.

Smaller advisors are losing ground to larger advisors in this market, according to the Hypsotech research 'Blueprint Hypothekenverwerking' (2005). Although the increase in sales in the Dutch market can be contributed almost entirely to the activity of intermediaries, these players are necessitated to liaise themselves to large distributors. There are a number of arguments to this point; intermediaries are only attractive partners when these are sufficiently large. In addition, intermediaries gain provisions, support and assortment by relating to one or more larger lenders. Lastly, due to rising costs, new legislation and a stagnating market, the intermediaries have to gain economies of scale in order to overcome incurred costs. The result is that a shake-out takes place between intermediaries in which mostly the smaller, independent, non-focussed intermediaries bear the brunt. Based on the above, the expected trend is a decrease in distributors: Hypsotech foresees that within a few years 80 to 90% of all mortgage distribution will be done by less than 50 entities.

Although the internet has become an important information source for acquiring mortgage product information, at the moment the proportion of mortgages sold via this channel at the moment is only modest. The current trend in product development of discounted standardized products makes the internet medium a more viable sales channel in conjunction with traditional channels. In figure 5 a summary is given:

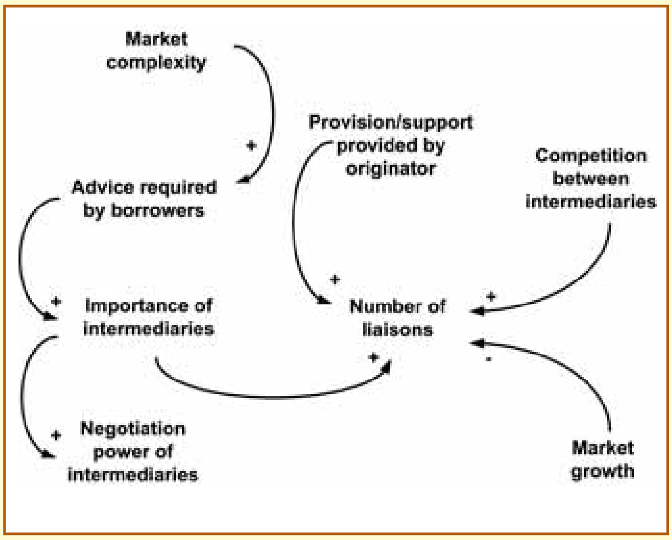


Figure 5: *the importance of intermediaries in the distribution of mortgages in the Dutch market.*

Processing

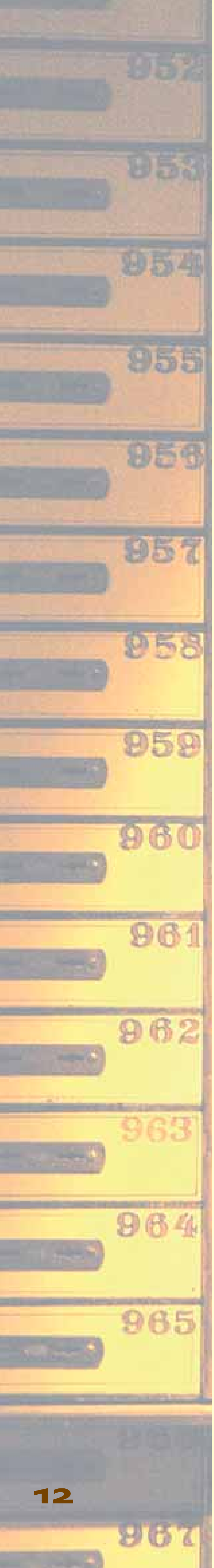
In the Dutch market a typical description of the mortgage value chain includes the following three steps:

1. Front-office activities; including sales, such as lead generation, advice to customers, sales and customer service;
2. Mid-office activities; including all activities related to loan application assessment, creating offering letters, final acceptance and preparation activities for the notary;
3. Back-office activities; including all activities related to processing the mortgage loan.

The lenders in the Dutch market are carrying out one or more of the above steps, depending on the sales channel and the preferred basis of outsourcing. In the Dutch market, over 50% of all newly originated mortgages are sold by brokers. These brokers are responsible for front-office processing, in order to support the broker a handful of sales support and advice systems are available in the market (EfDéCe, Castle, Tjip, Intersoftware, etc.). Larger brokers run their own version of these systems. Lenders selling mortgages through their own channels, mostly banks using the branch channel, use self-developed systems for sales support and advice. Electronic communication between brokers and lenders is well developed and used in the Netherlands for over 10 years. This communication is based on the standard mortgage data network, named Hypotheken Data Netwerk (HDN), and enables straight through processing (STP) for offering quotes. Further, there is also a development towards electronic communication between lenders and the notary, e.g. between Rabobank and Koninklijke Notariële Beroepsorganisatie (KNB).

Mortgage application assessment is supported by mid-office systems of the packagers or servicers. Larger lenders use customized systems, and are working with a limited number of specialist IT-suppliers, e.g. Everest and Ordina. Processing of electronic application forms, automated credit scores and automated offering letters are recognized as common features of the modern market. Roughly one third of the market volume is originated using the systems and/or other services of the two major mortgage servicers in the Dutch market: Stater and Quion.
A rather new development in the market is the outsourcing of (parts of) the origination process to packagers.

For back office processing the number of systems is decreasing. All major financial institutions (e.g. ING, FORTIS, SNS) run programs that integrate different back office operations, thereby reducing staff and the number of systems involved.


952
953
954
955
956
957
958
959
960
961
962
963
964
965
967

The UK mortgage market

In Europe, the UK mortgage market is often used as a reference because of the sheer size and maturity of this market, reflected by a large variety of products available. With a total value of residential loans of €1,243bn in 2004 the UK mortgage market is the largest in Europe. Further, the number of competitors in this market is large, albeit the concentration is fairly high: in 2001 the level of concentration in the UK market was around 60%.

Nevertheless, the level of competition is raised in the UK by the significant pressure that is executed by the smaller players. Therefore, the players in this market adopt various different strategies in order to compete more effectively; some choose to grow bigger by merging or entering joint ventures whilst other players opt for specializing in some activities and outsourcing non-core activities. The level of competition in the UK has not only led the mortgage interest rates to decrease but also it has increased the availability of mortgage products: in the UK there are specialist lenders that supply mortgage loans to the non-conforming and sub-prime market segment as well. In general it can be stated that high risk mortgage products are widely available in the UK. Besides specialist lenders, high street lenders, building societies and retail banks are important players in this market.

The UK non-conforming market:

Self-certified borrowers; uncertain income history	**Sub-prime borrowers; blemished credit history**	**Buy-to-Let (BTL) and Right-to-Buy (RTB) borrowers; higher potential risk related to collateral**

Figure 6: *the borrower types served in the UK besides the prime class.*

The above factors have led to advanced methods of originating, distributing and funding of mortgages to which will be returned in subsequent sections. Further, this market is influenced by the low level of government involvement; e.g. no income tax paid on capital gains of the primary residence and the abolition of mortgage interest relief at source (MIRAS) in 2000. Thus the relatively high mortgage loan to GDP ratio being 72.5% in 2004 is, in contrast to the Dutch market, not caused by tax favors. However, all mortgage business was regulated by the FSA in 2005, resulting in a major shift in mortgage distribution.

Last, in the UK mortgage indemnity guarantees exist that protect either borrower or lender. This is similar to the Dutch case in which the NHG scheme exists. A difference though, is that the NHG scheme in the Netherlands is regulated by the state; in the UK these schemes are covered by commercial insurance companies.

Products

In various sources the variety in products available in the UK market is stressed; this is combined with a large number of target markets being served by the UK mortgage industry. Recent presentations of lenders in the UK have indicated that there is an availability of around 24,000 in mortgage products. In this competitive market the number of products is this high, due to the way in which mortgage products are offered. For customers seeking a mortgage loan various characteristics (e.g. interest rate type, repayment type, discounts) can be combined. Therefore the degree in which borrowers can customize their loan terms is high, which inevitably leads to a huge variety in mortgage products

Besides a large number of available products, there is a more flexible tolerance in terms of borrower credit risk than in the Netherlands. In the UK, previously bankrupt borrowers are served by some lenders, which is not the case in the Dutch market. Also credit impaired borrowers can easily acquire mortgage contracts in the UK, whereas this is only limited available in the Netherlands. Until recently, especially specialist lenders targeted these borrowers in the UK.

Non-conforming borrowers are classified based on different grades of risks. Self-certified borrowers have an unblemished credit history, but are unable to document their income or have too short an income history. Self-certified mortgages are common in the non-conforming sector and are hence widely available in the UK. Those borrowers that do have a blemished credit history either previously or at present, are served by 'adverse credit mortgages'. Lenders grade the risks related to the individual characteristics of a potential credit-impaired borrower; based on this related risk the interest rate is determined.
This type of pricing is referred to as 'risk based pricing' and enables originators to target and serve non-conforming segments of the market.

Another characteristic of the UK market is the high LTV, which is flexible up to a maximum of 110% (extending to 125% in some cases) of the collateral value. This is not as high as it is in the Netherlands (115%), where due to the tax regulations the typical LTV is higher as well (90% vs. 69%). Nevertheless, the UK market is besides the Dutch market, one of the few European mortgage markets where above 100% LTVs are available. In conjunction with the increasing house prices and the relatively low interest rates, the average LTV ratio of the UK has increased mortgage lending.

Finally, competition in the UK market is not solely done by product pricing and/or differentiation, but also through the acquisition of fruitful sales channels. Gaining market share in the UK is thus not only done by aiming directly at consumers (a pull-strategy), but also by pushing the mortgages into the market by securing broker referrals and courting intermediaries; this phenomenon is also common in the Netherlands.

Distribution

The distribution of mortgages in the UK is done via the use of various channels: through use of branch distribution, the independent advisor channel, the tied advisor channel and by use of direct marketing and distribution. Traditionally, the branch distribution has been the largest. Currently, mortgage brokers are ubiquitous as they represent nearly 70% of total mortgage distribution in the UK. The reason for this is that in the UK, as it is in the Netherlands, the variety in mortgage products is rather large; the result is that most potential borrowers perceive the selection of a mortgage product as a daunting task, and combined with the stakes these have, an intermediary (mostly independent in the UK) is often consulted.

Additional regulations have been installed in October 2004 to increase consumer protection by the UK Financial Services Authority (FSA) [6]. For the sales and distribution of mortgage loans this has had major consequences [7] as lenders and brokers doing business in the UK market are required to disclose relevant information to potential borrowers. In addition, each authorized lender and broker is bound to regulations by the FSA, and therefore liability of claims within mortgage chains is regulated. The instalment of the FSA had a huge impact on the UK mortgage distribution. Presently, there are two types of brokers: the directly authorized brokers and the appointed representatives. The latter are regulated via related packagers; the advantage of this is that in this case a complete bundle of the mortgage product can be offered to the consumer. A barrier to the appointed representative liaison is that packagers need to be regulated and have to be able to take on complete liability. Therefore many packagers have been bought by large mortgage institutions in the UK that wish to have more control over their distribution channels.

The internet channel is potentially significant for the distribution of mortgages in the UK: this medium allows consumers to compare and evaluate mortgages, thus opportunities exist in the origination process and not in the actual lending.

Processing

In the Dutch market there is a clear trend of unbundling the value chain. Even the large financial institutions are assessing the opportunities of scale economies combined with the opportunities of outsourcing. In the first years after 2000, outsourcing was a fad in the UK market. However in 2002, Bradford & Bingley and Alltel concluded that a joint venture with the aim to leverage benefits via outsourcing had not been a fruitful strategy; Barclays and Global Home Loans came to the same conclusion in 2005. These examples corroborate the suggestion that expectations are not met due to reasons that are not clear until now.

6 Source: Financial Services Authority (www.fsa.gov.uk).

7 The FSA is similar to the Dutch 'Wet Financiële Dienstverlening' (WFD), there is however a difference: in the UK the aim is to give borrowers 'best advice', whereas in the Netherlands this is 'good advice'

In the last years the UK market attempted to set up a trading platform. The reason for this is that parties wanted to establish electronic communication between sourcing platforms (e.g. Mortgage brain, Mortgage 2000, Network data) and lenders. In spite of this, due to political reasons no standard could be established in the market. Currently, the market is looking for a more open standard for communication between brokers and lenders. In the Netherlands this is a topic of interest, given the shock initiative other than the ongoing development of the HDN protocol.

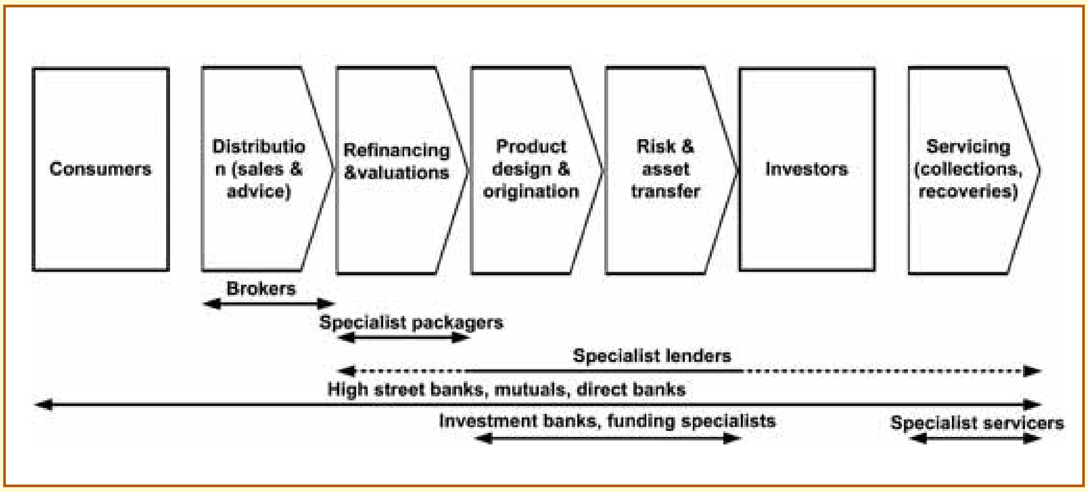


Figure 7: *the mortgage value chain in the UK (Mercer Oliver Wyman & EMF, 2003).*

The Belgian mortgage market

In the Belgian mortgage market the influence of the government is large: strict regulations are imposed on mortgage lenders how they can compete.
The emphasis lies here on the protection of borrowers, and results from the institutional background. Therefore, not only is the market highly regulated, but also strictly monitored by the regulators. One of main regulations imposed on the Belgian market is that product diversity is limited in favor of homogeneity and comparability. As a result the market is more transparent, and competition is largely based on price; flowing from this the profitability is low, even losses are incurred. Due to the transparency of this market, the activity and influence of intermediaries is marginal.

However, in spite of the mentioned down sides of the Belgian mortgage market, there are some aspects that favor the incumbent players. The first aspect is the concentration of the market: the 5 largest banks historically take up the larger share of the market. Secondly, the threat of (foreign) entrants in the market is low, due to the high degree of concentration and the marginal profits made. Thus, players that are able to work efficiently in this market and gain from economies of scale can create high entry barriers. Still, the degree of competition in the Belgian market is high, resulting in even lower interest rates.

In 2005, the incentive of mortgage borrowing has been raised due to an alteration in fiscal regulation: tax deductions are no longer dependent on income and each borrower is entitled to deductions (principal and interest combined) at equal total figures. The new fiscal system effectuates historically low interest rates and more simplified tax regulations; overall this has led to a record-breaking annual number of mortgages distributed: this number raised as much as 47% excluding the refinances compared to 2004.
The effect of this type of fiscal regulation is that borrowers want to pay both principal and interest components in order to be granted maximum tax deduction. Cumulatively for all mortgages, this will lead to a lower total outstanding mortgage loan figure in Belgium. Combined with low house prices in comparison with the Netherlands, these factors explain at least partly why the outstanding mortgage figure in Belgium is relatively low. For example: the total outstanding residential mortgage loan to GDP ratio for Belgium was 31.2% in 2004, the average for Europe was 45.3% and in the Netherlands it was 111.1%. It has to be noted that the percentage of owner-occupiers with mortgages in Belgium is lower than in the Netherlands: 56% in Belgium versus 85% in the Netherlands.

	BELGIUM	NETHERLANDS	EU AVERAGE
Owner occupation	68.0 %	54.2 %	63.5 %
Res. mortg. as % of GDP	31.2 %	111.1 %	45.3 %
Res. mortg. loans per cap	€ 8,500	€ 31,900	€ 8,500
Typical mortgage rate	5.2 %	4.8 %	4.1 %

Figure 8: *Belgian mortgage statistics in comparison to the EU and the Netherlands.*

Products

As already mentioned, the mortgage market in Belgium is heavily regulated, which has its consequences for the product variety. In terms of interest rate types and principal repayment constructions possibilities, the market is restricted to a few options. As a consequence, product diversification is hardly possible and competition therefore is mainly based on prices.

Change in interest rates in Belgium is only possible when these are indexed to Belgian government bonds (OLOs), at a maximum of one alteration per year. Otherwise, interests set over mortgages are fixed over the full term of the mortgage. The maturity date of floating rate mortgages can be extended when interest rates increase (CGFS, 2006). The principal repayments can be distinguished into three categories: the annuity method (i.e. equal total repayments per month), the linear method (i.e. equal principal repayments plus remaining interest costs) and the bullet method (i.e. interest-only mortgage, no repayments before maturity date). Nevertheless, some lenders allow early partly prepayments when this has been agreed upon.

For the available mortgage products in Belgium, the LTV is commonly between 80-85%. However, this percentage can exceed up to 125% of the collateral value. This LTV is similar to that of the Netherlands; this aspect therefore does not appear to be responsible for the relative low outstanding mortgage loan to GDP ratio. The variety in mortgage products is limited and the resulting complexity for borrowers is low. This transparency is purposely facilitated by the regulators and has also decreased the need for assistance by third parties. Therefore, the presence of intermediaries in the Belgian market until now has only been marginal.

Distribution

The distribution of mortgages in Belgium is mainly done through the branch channel. One of the reasons for this is that the Belgian market the Belgian market is made purposefully transparent by the mortgage regulators; this has led to a diminished need for the intermediary channel. However, there are some intermediaries present in the market, but their influence up to date has been marginal. Secondly, banks in Belgium have built up close customer relationships, which has created a high entry barrier for novel mortgage lenders. Lastly, the profit margin of the mortgage market is low, in effect this also avoids entrance of originators that use other distribution channels. In comparison to the Netherlands, the Belgian mortgage market in sum makes little use of the intermediary and internet distribution channel.

Processing

According to the above stated, competition in the Belgian mortgage market is largely based on prices, and product differentiation is largely blocked by the regulators. These factors put an extra strong pressure on players present in this market to work efficient, and aim for maximum economies of scale. By use of standardized protocols and ICT, the costs of processes and services can be mitigated on average. This leaves a niche of borrowers that fall outside the standard categories; these are served by smaller specialist mortgage companies and this indicates the increase in segmentation.

Due to high presence of banks in the value chain, the systems used here are traditionally "self-made" by the major banks. The majority of the origination process is done in the branch network, where processing is centralized. A number of banks (e.g. Fortis) have consolidated several back-office operations. Only one servicer is active in the Belgian market, a subsidiary of the Dutch Stater company.

The German mortgage market

Germany's mortgage market is the second largest after that of the UK, and is characterized by its fragmentation in market share. Due to this the market is very competitive, avoiding foreign entrance. The expectation is that due to the degree of competition and the low profit margins, banks will be forced to merge. By doing so, the banks strengthen their financial position and improve their profitability through economies of scale.

A major factor determining the German mortgage landscape is the home ownership: this was only 43.2% in 2004, which is even lower than the owner-occupancy of 54.2% in the Netherlands. The reasons for the low percentage are the institutions in Germany that encourage the use of the rental market. For example, favorable tax incentives exist for home owners to rent out their properties. Another example is the existence of installed regulations that protect renters from eviction and rent increases. Furthermore, the reversion of social rented dwellings to the private rented sector when occupants are no longer eligible for subsidized accommodation is a reason. As a result, Germany has the largest rental market of Europe, with nearly 60% of households residing in rental dwellings. In conjunction with the above, the restrictive bonus payment policy of the government on home ownership since 1999, has led to a slowdown in mortgage loan growth.

In general, the incentive for consumers for desiring a mortgage loan in Germany is less than in other European countries; this is shown in the mortgage loan to GDP ratio of 52.4% in 2004. As demand for houses in Germany is low, the result is that prices have increased only marginally; in the former East Germany these have even dropped in the 1999-2000 time interval. In 2004, the house price growth was -0.4% over the whole German market.

With the aim to facilitate home-ownership, savings institutions called Bausparkassen (the German Bausparkassen are highly similar to the UK Building Societies) offer mortgages at lower and stable interests in return for accumulated savings. Thus, the interests set over mortgage loans of Bausparkassen are independent from the capital market. In Germany the Bausparkassen play an important role in the mortgage market [8]. These mortgage institutions increase the availability of homeownership to consumers by lowering the threshold of mortgage borrowing. They facilitate this as lower loans are needed by borrowers when they already own a savings account.

8 See: www.bausparkassen.de

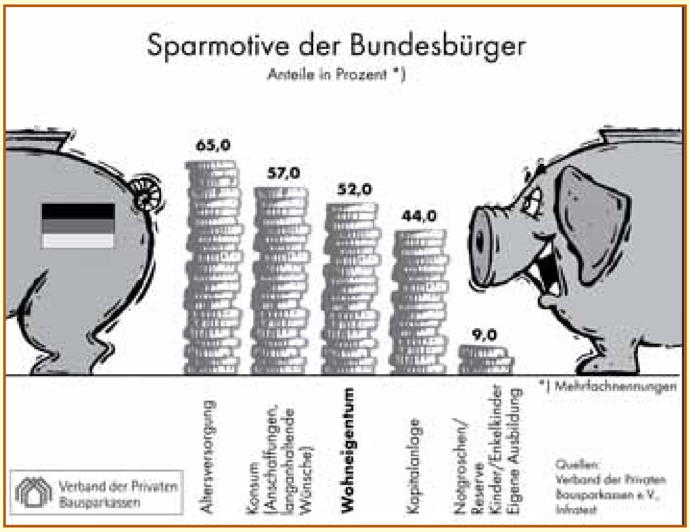


Figure 8: *52% of Germans save money with the aim to finance the possession of a dwelling.*

Products

The variety of mortgage products that are available in Germany is largely determined by the funding instrument that is often used by lenders, i.e. covered bonds; by issuing mortgage bonds the stake of banks to avoid default and prepayment of mortgages has increased. Consequentially, lenders in Germany have relatively strict underwriting criteria for allowing mortgage loans, combined with high prepayment penalties. On the other hand, for borrowers there is a wide choice of mortgage loans that have long terms: 67% of mortgage loans have a reset 10 years from the origination date, and for 12% this is even 15 years. As the interest rates have dropped the last few years, this yields an advantage for borrowers.

In terms of fixed rate terms, there is in principle a wide availability of mortgage products varying from variable rate mortgage loans to loans that have reset after more than 15 years. However, in terms of underwriting criteria and conditions of the mortgage contract the availability is rather limited; this is especially reflected by the outstanding mortgage loans to GDP ratio and the LTV ratio. Mercer Oliver Wyman (2005) has stressed the potential of the German mortgage market that results in the relatively low GDP to total outstanding mortgage loan ratio of 37.4%. In combination with the above this potential is large because of the sheer size of the German economy. Potential growth is facilitated by creating a higher incentive for home ownership; especially in East Germany there may be a large demand for home ownership due to the low quality of apartments there.

Another limiting factor that needs mentioning is the typical LTV ratio of 67% and a maximum LTV ratio of 80% for most borrowers. In comparison to the Dutch typical LTV ratio of 90% and a maximum stretching up to 125% the German average LTV ratio is quite conservative. Less conservative LTV ratios are possible for wealthy first-time buyers for instance that also have to accumulate capital in a savings deposit before being granted the mortgage loan.

Further, the sub-prime lenders are not served at all, i.e. credit impaired consumers have no access to mortgages. Currently, there is a large potential demand of low equity standard borrowers, prime borrowers with stretched mortgages and even for the standard borrowers. By adopting risk based pricing and additional RMBS funding policies, originators will be more likely to meet this potential demand.

Germany makes up the largest share of funding mortgages by use of covered bonds; in 2004, German covered bonds constituted 40% of the total covered bond market in Europe. Besides, in 2004 this instrument funded 21.5% of outstanding mortgage loans in Germany. The institutions issuing (mortgage) covered bonds, the so-called Hypotheken-Pfandbriefe, are mainly the private mortgage banks and public-sector credit institutions (e.g. the Landesbanken). The result of the ubiquitous funding through the use of covered bonds is that often the LTV ratio is capped to 60%; this is also due to the related regulations that are relatively strict for mortgage bonds in Germany in order to protect investors. Mortgages that have an LTV higher than 60% must be funded through alternative/additional instruments that create credit enhancements. Besides, the prepayments have high penalties and are sometimes not allowed at all, for the covered bonds are used to fund fixed rate mortgages. For 2006 and the years following, the expectation is that the number of covered bonds will increase. This effect is assumed to take place due to the abolition of the state guarantee from the Landesbanken and the Sparkassen: institutions losing this public sector support mechanism will probably decrease in terms of credit rating; in order to overcome this they are likely to issue the covered bonds based on the credibility of this traditional instrument.

Distribution

Mortgage distribution in Germany is largely driven by use of the traditional branch channel; the usage of intermediaries is low in comparison to the situation in the Netherlands. There are two main reasons why this difference exists between these markets.

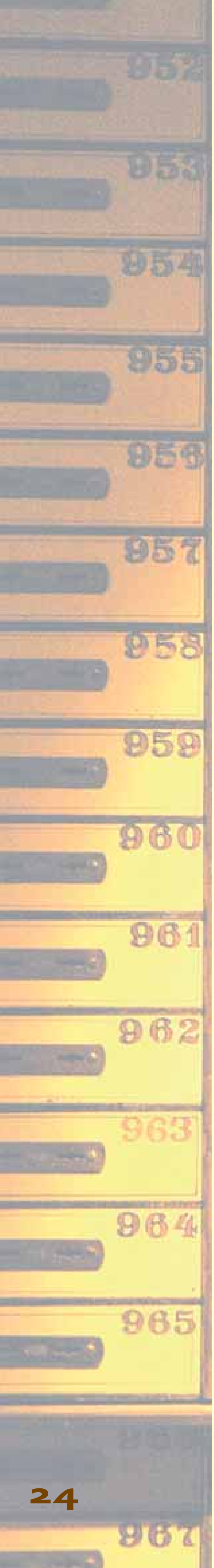
Firstly, it is common for borrowers in Germany to accumulate a substantial savings deposit in advance before being granted a mortgage loan; this enforces the liaison between the traditional banks and their customers.

Secondly, German borrowers often perceive that advice from a credible personal banker is crucial for the property financing process. Thus, there is a significant preference for the traditional mortgage sales channel. However, via the use of internet consumers can acquire lucid information about available mortgage types and current interest rates of various originators, which leads to more market transparency [9].

The use of the internet channel has remained subdued though: in a research by the Deutsche Bank of February 2006 [10], the need for human support when dealing with complex financial products such as mortgages is stressed besides security reasons as a barrier to the adoption of the online channel.

9 See for instance the websites of www.interhyp.de, www.finanztip.de and www.drklein.de.

10 See website of the Deutsche Bank (www.dbresearch.com).



Processing

When focussing on mortgage processing methods in Germany, it is worth noting that the operating costs are on average low in comparison to other European countries. Due to the pressure resulting from this fragmentized market, the level of competition is high; this creates a market in which the resulting prices, i.e. interest rates are low. In Mercer Oliver Wyman's (2003) study on mortgage markets, the German mortgage market is clustered in relation to its low price levels and low operating costs. Having noted the efficiency of this mortgage market, it becomes interesting how this efficiency is created. A major contribution to the efficiency of the market is the average duration of the loan term. This makes processing mortgages less costly, because the bulk of the costs related to originating mortgages are realized at the begin and the end (i.e. due to underwriting and unbinding activities) of the mortgage term. Thus when the average mortgage term is longer, these costs are spread out over a longer term, and thereby facilitating more efficiency.

Furthermore, due to the strict underwriting policies in Germany, the number of defaults and foreclosures are low as well. In addition to this the prepayment penalty in Germany is high or not allowed at all. These factors combined decrease the number of administrative activities that need to be undertaken on average per borrower, clearly this has a positive effect on the overall operating efficiency of an originator. Although the LTV ratio in Germany is more restrictive than in the Netherlands, the average loan size is relatively high. Thus, similarly to the Dutch and UK market, the fixed costs and variable costs of originating and processing a mortgage loan can be covered more effectively with interest margins.

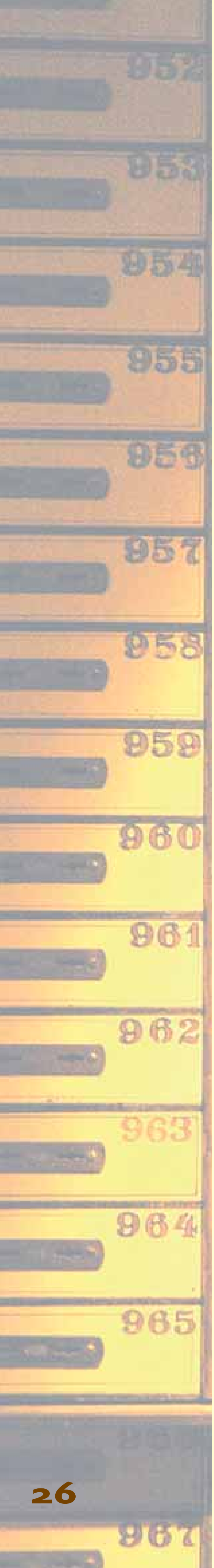
A final factor leading to lower operating costs is the use of ICT in order to streamline processes between parties, which is especially profitable given the current trend towards unbundling of activities; this innovation is however quite common in other mortgage markets as well.

The Danish mortgage market

The situation for this Scandinavian country is different from the markets that have been described so far. For one, the currency is the Danish Krone (DKK) instead of the Euro, although the Krone rating is linked to the rating of the latter currency. What makes this mortgage market interesting, is the institutional setting in Denmark; i.e. the mortgage market is heavily regulated in favor of economic stability of the country. The Danish mortgage market is based on effective and low-cost arrangement of credit, and the market-place has remained remarkably insensitive to macroeconomic disturbances. This is reflected by the marginal amount of losses that investors in mortgage bonds have incurred here over as many as 150 years.

A major institution is the regulatory framework in Denmark; this effectuates an efficient mortgage funding and investing mechanism. For instance, in case of foreclosure Danish law facilitates a rapid and low-cost procedure of processing this. Therefore the operating costs that originators incur here are one of the lowest in Europe. In combination with the high degree of concentration in the Danish market (there are only four residential mortgage banks), one would expect to see high margins made by the lenders. Nevertheless, the actual situation is quite different: due to the transparency of the Danish market and the homogeneity of the mortgage characteristics, the level of competition is high. It needs to be remarked however, that in the last few years the variety in mortgage products has widened.

Foreign entrance to the Danish market has remained low; this is probably due to the requirement of the balance principle: all mortgages need to be financed through the use of mortgage covered bonds. This is the basis of the above described regulatory framework. As a result from the attractiveness of financing dwellings via mortgage loans in Denmark, the outstanding mortgage loan to GDP ratio was 101% in 2003; this is the second highest ratio after the Dutch mortgage market.



Products

Due to the issuance of mortgage bonds, the mortgage products in Denmark have shown a high degree of similarity between the institutions from which they originate. In the last few years, the pressure of competition has eventually led to a diversification in products. Therefore, besides the traditional fixed interest rate products and mortgages with an interest reset term, mortgage loans with variable interest rates to a ceiling and interest-only loans have been introduced lately.

The fixed interest rate mortgages are losing ground to the mortgage loans with a reset term that usually varies between $^1/_2$ and 3 years. For the maturity of the mortgage credits in general, the typical term in Denmark is 30 years; this is longer than the typical maturity term of most European mortgage markets. The reason behind the length of these mortgage products can once again be traced back to the mandatory covered bond funding of mortgages in Denmark.

As is mentioned above, besides the fixed rate mortgage loans and loans with a reset term, capped variable mortgage loans and interest-only mortgage have become available in the Danish market. For the variable loans, the interest rate is limited up to a ceiling of 6%; in the interest-only products the borrowers can forestall the principal repayments until an agreed repayment term of the loan. This is often after a period of 10 years, with fixed or floating interest rates; after this period the loan can be conversed into another type of loan or repaid.

Whatever the type of mortgage product the borrower chooses in Denmark, in either case the maximum LTV ratio is 80% in order to contain the credit risks of the mortgage bond issuers. From the borrower's perspective the residual 20% of the value of the dwelling will have to be funded via a savings account or via additional unsecured loans. However, secondary mortgages via banks can be used to extend the LTV ratio up to around 95%. The LTV ratio limit in Denmark is a subduing factor to the outstanding mortgage loan to GDP ratio.

The Balance Principle

When describing funding of mortgages in Denmark, the basic principle, i.e. the balance principle needs to be mentioned. This principle aims to match the cash flows that result from the mortgage bonds to the cash flows that result from the underlying mortgage loans (Frankel, Gyntelberg, Kjeldsen and Persson, 2004).
In effect, the originator passes through the currency and interest risks to the investors; these risks are however only marginal: currency risk is limited up to 0.1% of the capital base and the interest risk up to 1%, which is also bound to strict regulations. The mortgage originator bears the credit risk; this risk is very low as well: in over 150 years no mortgage in Denmark has not been repaid despite historical economic crises (Urskov/Nykredit, 2002).

By linking the investment instruments to the mortgage loan types, innovations in the mortgage loan market will be reflected by its secondary markets (in Denmark the bonds traded on the stock exchange). Traditionally, fixed rate mortgages with long maturity terms are funded through callable bonds, i.e. bonds that can be called by the issuer when the borrower decides to repay/buy back its mortgage. This facilitated long-term borrowing in Denmark at fixed rates with the option to prepay mortgage loans without a prepayment penalty. It has to be mentioned though, that this accounts for mortgages funded by callable bonds. Borrowers pay in this case a premium (in the form of an option to buy) that covers prepayment risks of the investor. When mortgages are funded by use of non-callable bonds, the borrower can still prepay, but then it is required to pay the full market value figure of the outstanding mortgage loan.

As a result of the above, the Danish have become very focussed on remortgaging opportunities. For example, based on the yield of the mortgage bonds, borrowers can remortgage with the aim to decrease interests over a higher outstanding loan. Otherwise, they can opt for a lower residual mortgage loan at higher interests and subsequently remortgage this when yields go down, this is called upwards and downwards remortgaging [11]. Nowadays, mortgage loans with capped variable rates and those with a reset term have been made available.

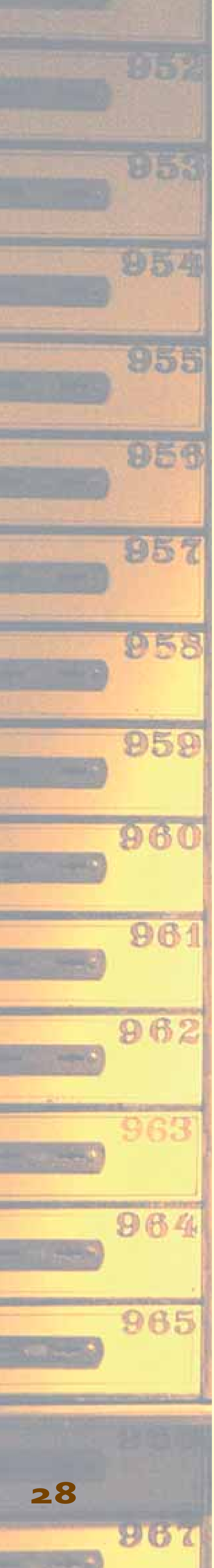
These innovations to the Danish mortgage market are funded through innovative instruments of the secondary market: the capped variable rate mortgage loans are funded by use of capped floater bonds for which the maturity is 30 years and the returns for the investors from these are capped at 5 or 6%; the bullet non-callable bonds with a maturity varying from 1 to 11 years, and with a bullet repayment fund the interest-only mortgage loans. This once again clearly shows the direct link between mortgage loan types and covered bond types in Denmark.

Distribution

Besides branch distribution, mortgages are also offered in Denmark via tied advisors; they make up around 30% of total mortgage distribution in this market. Those mortgage institutions that are owned by a bank often use their parent's network for distribution activities. In some cases the mortgage institutions have liaisons with local banks; this facilitates improved distribution. Further, real estate agents have been obliged to make a financial proposal when residents need funding for purchasing a dwelling. Therefore this channel is used for mortgage distribution as well, however the Danish government proposed in 2004 to abolish this obligation for realtors. The aim of this amendment is to let residential buyers find out a sufficient funding instrument themselves in order to decrease the transaction costs related to property purchases.

In Denmark augmenting channels like the internet and telephone banking media are utilized as well; until now this has been only marginal and is likely to be so due to similar reluctance that is also present in other markets to use this channel.

11 See: website of the Danish association of mortgage banks, www.realkreditraadet.dk/.



Processing

Mortgagors in the Danish market act as one-stop shops in which all activities of the mortgage financing process are included. This is due to Danish mortgage credit regulations that stipulate that only specialized lenders are permitted to grant mortgage loans.
As the mortgage banks act as intermediaries between investors and borrowers, the direct link between covered bonds and mortgage loans requires these institutions to originate, structure, and service both bonds and loans in one integrated system. Thus specialization of one of these activities is not likely to yield a market opportunity due to the strong relationships between borrower, mortgage bank and investors.

This is a large contrast to the Dutch and UK markets in which specialization of the various activities in the mortgage financing process is a common phenomenon. Given the efficiency of the operating processes of the Danish mortgage institutions as these are stated in Mercer Oliver Wyman's report (2003) of the European market, it must be noted that the low degree of specialization has not led to high costs. The efficiency of the Danish mortgage banks is facilitated by the (mandatory) standardization of products, the scale benefits due to a high degree of concentration and lender friendly repossession law that speeds up this process.

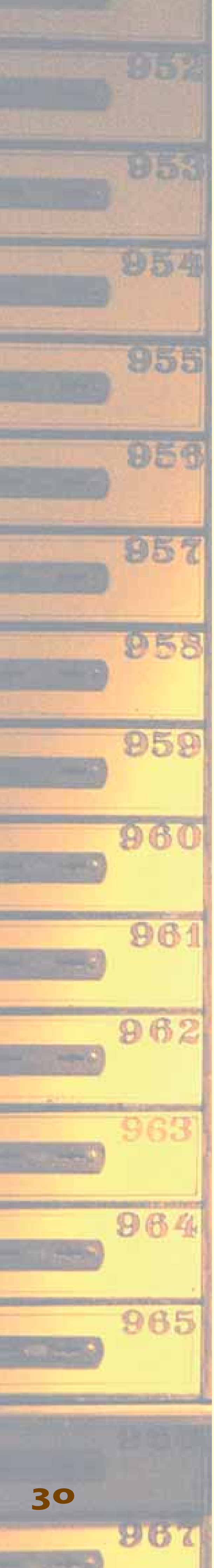
The association of Danish mortgage banks mentions that large parts of the administration with regard to the mortgage financing process are digitalized at present. By doing so, the use of paper based documents is to become obsolete to an increasing extent over time.
Currently, the instalment of an online land registry system is being planned, which will lead to another increase in operating efficiency and processing time for the mortgage banks.
The ICT systems of the mortgage bank have to be in sync to this central online land registry system, therefore further standardization is to be expected due to network externalities.

The Swedish mortgage market

The second Scandinavian mortgage market of interest in this research is the Swedish market, in which the low owner-occupation level of 48.8% leads to a modest residential mortgage loan to GDP ratio of 52.7% in 2004. In Sweden, mortgage interest payments are significantly less tax deductible since 1990: only 30% of interest payments up to €12,000 annually are deductible, for larger annual payments this is 21%. The short and long run effects that took place in this mortgage market could be partly analogous to a future case in the Netherlands. There are however some major reasons why the abolition of fiscal mortgage interest relief in a probable future case of the Dutch market will have different effects than the results flowing from a comparable act in Sweden of 1990.

Firstly, Sweden is a large country in terms of square size but relatively small in terms of population size. For the Netherlands the opposite accounts, even though population size is only moderate; this has major effects on the availability of land and accommodations. Therefore, demand in the Netherlands is higher which tends to raise house prices; this pressure is, besides the main cities, less high in Sweden. This increases the volatility of the house prices given alterations in fiscal regulations. The latter remains relevant even when taking into account the fact that around 50% of the population lives in the denser populated urban areas; this is due to the higher availability of alternative locations in Sweden.

Furthermore, the fiscal reforms were executed in a revolutionary rather than an evolutionary process. Various reforms, like reducing tax relief and interest rate subsidies, were imposed in 1990, resulting in a shock in interest rates and in house prices. In the Dutch case this process is being executed, perhaps on basis what is learnt of the Swedish case, in a more evolutionary way. One example of this is the emplacement of the tax box system in which eligible bases of tax deductions are split up, this results in less tax relief. In the future more changes in the Dutch fiscal system are likely in respect of mortgage interest relief.



At the present the Swedish house and mortgage markets appear to have resettled as house prices have shown a continuous sharp growth since the mid-1990s; besides, both fixed and variable/floating interest rates have dropped sharply since that same period. As of 2004 the typical mortgage rate in Sweden is 3.0% vs. 4.1% in the Euro zone and 4.0% in the Netherlands; this indicates the present stability of the Swedish mortgage market.

In general the Swedish mortgage market is highly concentrated with only 5 larger residential mortgage lenders present. This is due to a process of consolidation that has taken place to prevent foreign take-overs. Nevertheless price competition in Sweden is fierce, as is indicated by the low interest rates. This is effectuated by transparency through homogeneous products. Besides this, the decrease in government support has also led to increased price sensitivity of Swedish borrowers.

Foreign entry has remained subdued because of the above, but this is also due to the fact that Swedish borrowers are often retail clients of their lending institutions, thereby enforcing their relationship. Commercial banks that make up 4 out of 5 significant players in the Swedish market can be characterized as being one-stop shops and for foreign entrants this poses a significant barrier to overcome. Another subduing factor to foreign entrance is the mandatory establishment of a Swedish entity prior to the admission to do business in Sweden.

Products

In Sweden regulations have led to a high degree of product homogeneity in which similar interest payment types are linked to the funding mechanisms of the mortgage lender. In terms of principal repayments the Swedish mortgages are not very distinctive from that of other mortgage markets. Given the historical fiscal regulations, consumers have a preference for interest-only mortgage products though.

What actually is distinctive of the Swedish market, is the low level of refinancing due to the flexibility of the condition of mortgages. The Swedish Consumer Credit Act that prohibits prepayment penalties related to variable rate mortgages, in combination with competitive pressure, this has led to increased flexibility in both variable and fixed rate mortgage conditions. In effect, this means that borrowers are allowed to change conditions of their existing mortgages given an interim period that resembles refinancing in other markets.

Underwriting procedures in Sweden are quite strict, and in combination with the country's credit quality laws, they cause that large segments of the sub-prime market are not served. Especially for the risky segment in which borrowers have a blemished credit history, access to mortgage loans is more or less blocked. In comparison to the Dutch mortgage market the LTV of mortgage loans in Sweden is low: this ratio varies from 75% up to a maximum of 90% of the collateral value. The main cause of the low LTV and the strict underwriting procedures is the often used mortgage bond funding mechanism in which credit risk has to be mitigated.

Mortgage bonds in Sweden

As of 2004 the outstanding residential mortgage lending figure of Sweden was covered for 55.9% of mortgage bonds (Hypostat/EMF, 2005). Similar requirements can be found in other large mortgage bond markets in Europe such as Germany and Denmark.
Due to the flexibility of mortgage conditions, the term of mortgage bonds in Sweden is shorter than, for example, in Denmark. Based on the interim periods in which the same conditions apply, the maturity of Swedish mortgage bonds is determined, these reset intervals vary from 3 months up to 5 years (EMF, 2004).

Distribution

Online banking is adopted by Swedish consumers to a high degree; this is mentioned by a research of the Deutsche Bank in February 2006 to be at one of the highest levels in Europe. In combination with the close ties between consumers and banks, the wide variety of banking services offered through the internet suggests a relatively high level of online mortgage origination. This is due to both the familiarity of consumers with online banking, and the loyalty of the Swedish to their banking institutes. Further support in favor of the argument can be found in the availability of information and services offered by the mortgage institutions [12]. The internet medium is also utilized by intermediaries that are active in Sweden, which adds to the market's transparency.

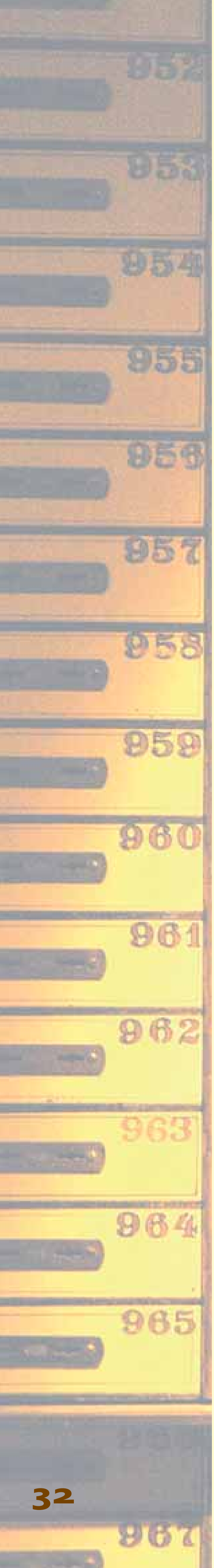
Nevertheless, the largest share of mortgages remains to be originated through local subsidiaries. These consist mainly of retail banks of the large banks that own the mortgage institutions. An innovation in this respect is the increased availability of mortgages offered by ICA Banken, which is liaised to a supermarket chain. By ICA Banken also other financial services are offered, and these can be managed by the consumer via the internet as well. ICA Banken co-operates with SBAB to offer these services. Concluding, in Sweden a wider spread of channels is used for distributing and originating mortgages than in comparison to other mortgage markets.

Processing

Internet based originating is at a sophisticated level in Sweden. Financial services, including mortgage lending, are facilitated at a large scale by practical online services.

Mortgage processing will therefore need to be adjusted in order to accommodate this transition from the branch channel to online banking. Lenders in Sweden have responded to this by developing online lending platforms. The degree in which online banking is offered may however vary per institution.

12 See for example the websites www.sbab.se; www.stadshypotekbank.se; www.comboloan.se.



The act on qualified electronic signatures of 2001[13] has helped to speed up the adoption of online lending services. These electronic signatures facilitate automated processing of mortgages. On the other hand, it is required in this act that some documents to be paper-based, and also they oblige the providing institute to hand trustworthy systems. In general, mortgage processing in Sweden tends to be executed by the lending institute itself. This has been organized in a way that they can offer a wide array of services to consumers and thereby becoming one-stop-shops.

[13] See also: The website of The National Post- and Telecom Agency of Sweden (PTS), www.pts.se/

Observations

In the previous sections a succinct overview is given of the mortgage market of various countries in the vicinity of the Netherlands, in which the emphasis is placed on the most remarkable aspects of each country discussed. In this research the aim is to elaborate what can be learnt from other European markets, therefore some conclusions in this respect are formulated below. It has to be noted that these observations are based on the qualitative judgments made by Hypsotech, and also the choice of subjects is arbitrary. We also do not wish to strive for absolute completeness, the aim is to suggest for alternative per spectives based on visions of other markets. We would like to invite readers to acquaint themselves with foreign mortgage markets to generate new ideas and increase inspiration for innovative ways of doing business.

The UK market is endowed with a high variety of products

In the UK the market developments have led to a mature market with a variety of around 24,000 mortgage products. Relative to the Netherlands, the availability of products in the UK is significantly higher. The question arises why this difference exists. A wide variety of options both in terms of interest types, rates and options are made available to the borrowers in this market, and as a result there can be as many as 20 to 30 mortgage loan varieties. Therefore, the consumer has a menu with various options like a first- or second-year rebate on interests, or it can opt for a redemption-free repayment type loan product for instance. Put differently, all augmenting interest facilities of a product are added on separately from the basic loan product. The consumer has the choice to include these in their mortgage loans.

In addition to the above, the differentiation in risk categories is in the UK higher than it is in the Netherlands; this is especially reflected in the sophistication of lending in the sub-prime and non-conforming markets in the UK. A similar trend can be found in the Netherlands that appears to follow the UK developments: driven by stiff price competition the aim is to keep prices of no-frills products low; this is funded by charges that are set on additional options. That is, these augmenting products are excluded from the basic product package and priced separately. From this it can subsequently be concluded, that the customer consulting process and related software will become far more complex.

Outsourcing activities in the lending process is declining in the UK

In previous sections on the UK market it is stated that a number of outsourcing deals did not have the results that were desired in advance. An interesting question then becomes why these projects failed to meet expectations in order to make an analogy to the Dutch market. For answering this question, one has to realize firstly what the rationale is for an outsourcing decision: in many deals the main drivers were standardization, economies of scale, cost savings, and the replacement of ICT systems.

Of the latter topic it is known that endeavors of this kind can be arduous, complicated and risky projects. This accounts especially when ICT is outsourced to service companies from other countries, which have to make their products and services compatible with the new market. As is made clear in the description of each market, every country has its own specific regulations. This requires ICT to be customized to each market, for it has to process these specific relevant factors of the environment it is embedded in. To give an example: in a mature market like the UK, lenders need ICT that is able to deal with personalised documents and a high diversity in profiles. The reasons for outsourcing that are summed above, are counter-productive when it comes to a high degree of customization with regard to ICT in the UK.

So, can a same conclusion be made for servicers in the Dutch mortgage market? On the one hand, this will be the case, because the Dutch market is becoming increasingly akin a highly mature market, and therefore the necessity of flexible ICT is raised. On the other hand, because servicers in the Netherlands have utilized in-house developed software, focussed on the situation in their own market(s) outsourcing can be fruitful.

Distribution in Belgium is largely done through the branch channel

It is questionable whether or not this will remain the same in the future, but currently the distribution of mortgages in Belgium shows a large difference with the Netherlands. Why are the other distribution channels so poorly developed? A significant aspect in relation to this is the profitability of the whole mortgage market.

In the overview of the Belgium market it is stated that competition is high and the margins are minimal. Earlier this is pointed out as one of the major reasons why Belgium is not popular with foreign and monoline lenders. We also learned that until now the market-place in Belgium has purposely been kept transparent by the Belgian government, and therefore little advise is needed by Belgian consumers. In this mortgage market there has not been a necessity for other distribution channels other than the traditional branch distribution channel. Therefore the importance of the intermediary channel has remained subdued.

One could ask himself to what degree the Dutch market can be compared to the Belgian market when a large number of fiscal options are no longer applicable and when competition lowers existing margins. If this market was less complex, would this then lessen the need for intermediaries? Besides, if margins on mortgage products continue to decrease would this lead to a situation in which the only way to serve a customer profitably is extensive cross-selling? Perhaps the trend of market transparency has already started in the Netherlands, by originators offering simplified products at low rates increasingly.

If mortgage lending in itself is no longer profitable, it will take large investments to lure customers by use of cross-selling. Only the large financial institutions have the availability over funds to make such investments, in this case it is likely that these players will utilize their own distribution channels. So, does this mean that the broker channel is not helped with heavy competition at the end of the day?

Mortgage loans have a one-to-one relationship with investments in Denmark

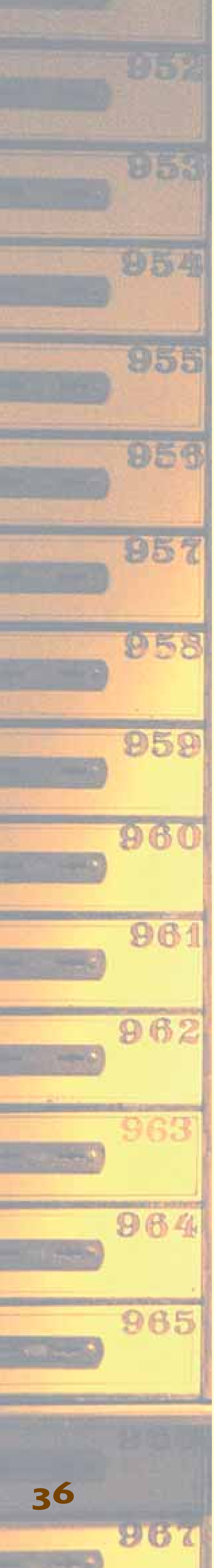
In the overview of the Danish mortgage market the relationship between the mortgage loan and its bond has been explained, this direct relationship has become obvious in the also described buy-backs by borrowers. It is further given that for the sake of complete credit risk coverage of the bond holders (i.e. the mortgage loan funders), underwriting criteria in Denmark are rather strict and the LTV is limited to 80%.

Inspired by the Danish mortgage market a new type of construction could be made in which relatives of the borrower function as an investor of the mortgage loan. Presently, mortgage loans that are secured by relatives already exist, the so-called generatiehypotheken. This type of funding would make banks far less vulnerable to borrower defaults and credit risks. Also, interest risk due to prepayment propensity would decrease in this situation.

Besides a direct relation between the loan and its bond there are other varieties possible. For instance, when investors wish to invest in a certain class of borrowers, the investment bonds could be bundled into one fund, e.g. a starter fund. When the government would join in the support of home-ownership promotion through exemptions in fiscal regulation, this can be a welcome option for socially responsible investors. Also, the government could support mortgage funding and decrease funding risks which would further lead to lower housing prices and lower interests.

Upwards and downwards remortgaging in Denmark

In the section on the Danish mortgage loans and the related balance principle, it is made clear what type of bonds are related to each type of mortgage loan. From this it is concluded that the most striking phenomena of this market are the penalty-free prepayment and buy-back options of borrowers.



When the borrower has opted for a mortgage loan with an option to prepay, the mortgage institute passes the prepayment risk on to the investor. For this type of risk the investor collects a premium on its coupon paid by the borrower. Mortgage loans for which this prepayment option is not included can still be bought back by borrowers, to market value.
The payback option gives the possibility to remortgage when interests are rising.
This implies that in the case of a higher yield the borrower can replace its existing mortgage by a mortgage with a lower capital, but with a higher interest rate.

Obviously, Danish mortgage bonds are bound to the fluctuations of the capital market, therefore they will give fixed coupons decrease in yield value when interest rates rise.
According to what is mentioned in previous sections, Danish borrowers are highly aware of the speculation opportunities of remortgaging. So, what can be learnt from this quite extraordinary mortgage market with regard to the Dutch mortgage market?

The Danish market shows a nice example of how interest risks can be dealt with at a realistic fashion. Presently, the market-place is focussed on mortgage products in which the risk types are mitigated; the Danish market shows an extra possibility in this respect. Secondly, this is an interesting phenomenon especially for markets where a major share of the volume of new originated mortgages volume comes from remortgaging, like in the Netherlands the last years.

Bausparen in Germany: old wine in new bottles?

If the Dutch government wishes to promote the consumers to invest in bricks and mortar, it will have to create an incentive for them to do so. The Bausparen method from Germany is one such method that will increase the affordability of dwellings for especially first-time buyers; it is the latter group that is experiencing increasing difficulties in finding an affordable residence that fits their needs, particularly in the densely populated western parts of the Netherlands.

Accumulating a sum of cash on a savings account prior to purchasing a residence is common in Germany, by many this is considered to be overly conservative. When savings are accumulated, the LTV of the additional mortgage loan can be considerably lower and this will increase the affordability of dwellings. In the present fiscal system in the Netherlands though, the Bausparen method is not feasible due to the taxation of interests received over the outstanding savings account. Therefore, borrowers will be more likely to choose constructions in which interests have to be paid over an outstanding loan, for in this case tax relief is available.

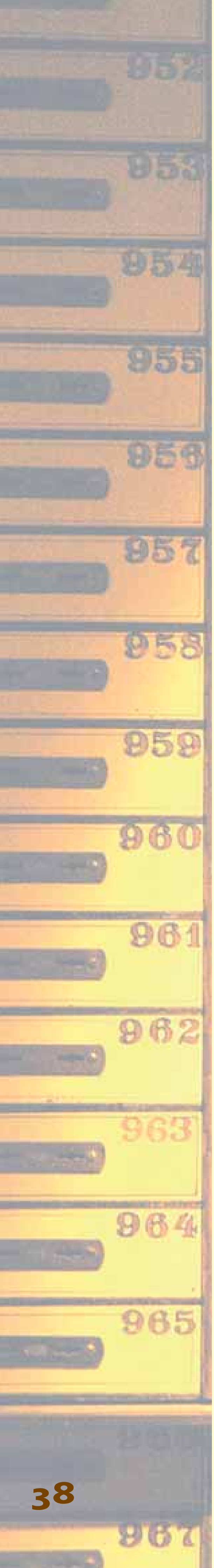
For lenders it is relevant whether or not they are able to implement such an instrument like Bausparen, perhaps they will have to wait for suitable regulations to be installed. Regardless of it will occur or not, the creation of customer loyalty through the combination of saving with lending is every marketer's dream. Besides, is successful marketing not often about old wine in new bottles?

Shocks from change in tax regulation in Sweden, the future for the Dutch market?

In Sweden the significant reduction in tax relief over mortgage interests created a significant shock to the house market, i.e. the prices of dwellings dropped sharply in the period after the instalment of the new regulation. This effect was combined with a logical increase in interest rates; overall this had negative consequences for years to the Swedish economy, and it took until the end of the 1990s before the Swedish economy recovered from the shock.

Clearly, the Dutch regulators should examine closely why this profound negative effect took place in order to prevent a similar result. One reason in particular, is the time-span of the implementation: the instalment of the changes was executed in a rather revolutionary fashion. It is thus advisable that the Dutch government installs its fiscal changes in an evolutionary way, preferable in combination with transitional measures. Recently, in the Netherlands the tax box system has been brought into effect, suggesting that the Dutch government aims for an evolutionary change of the fiscal system in this respect.

Nevertheless, the market-place in the Netherlands is completely different than the Swedish residential market. In Sweden there is no housing shortage like the one in the Netherlands; therefore the balance between demand and supply in the Swedish housing market is disrupted more strongly given a similar disturbance to the Dutch market. Thus, even if a similar measure like that was taken in Sweden in the early 1990s takes place in the Netherlands, it could well be that house prices remained at an approximately equal level. On the other hand, one has to be cautious for the macro-economic effects when consumer buying power becomes less.


952
953
954
955
956
957
958
959
960
961
962
963
964
965
967

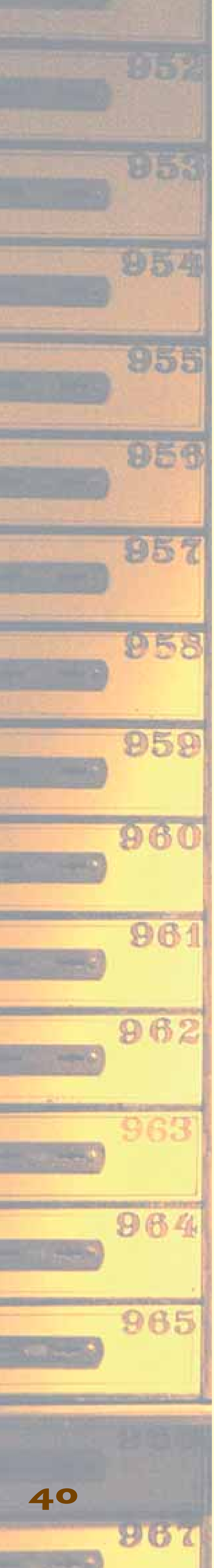
Final thoughts

The mortgage market in the Netherlands is turbulent and it is expected that this market will face a lot of changes in upcoming years. Competition will intensify and players in the market will need increased knowledge and creativity to survive.

During this study we learned from other European markets, and we shared interesting features by documenting our observations. However, we understand that the observations do not include a crystal clear solution to questions related to market situations. Also, they can raise even more questions. But we hope that, by introducing a number of European markets, this study will encourage you to look for more ideas and experiences in other markets.

As already stated in the introduction, a European mortgage market does not exist, but there are a lot of similarities between markets. The Dutch market is relatively large, but this market had a strong focus on its tax regulations. This is in spite of other markets where aspects like customer protection and risk management were important for the development of the market. As the focus on tax regulations slowly decreases, these aspects grow in importance and experiences elsewhere can be relevant.

So one should perceive this study as a first step: become knowledgeable about the European markets and look for best practices. When performing the second step: looking for more interesting observations and best practices, always ask yourself the question: What can we learn?



Reference list

[1] Batcharov, A., Collins, J., Pauw, X. de, Davies, W. (2003), Merrill Lynch Guide to International Mortgage markets and Mortgage Backed Securities, Commercial Colour Press, London.

[2] Centraal Bureau voor de Statistiek (CBS), Organizational Website: www.cbs.nl/.

[3] Committee on the Global Financial System (2006), Housing Finance in the Global Financial Market, CGFS Papers, No. 26.

[4] De Hypothekers Associatie, Organizational Website: www.hypotheker.nl/.

[5] Deutsche Bank publication (2006), What We Learn from the Differences in Europe, See Website: www.dbresearch.com/.

[6] Dijkhuizen, A. van (2005), Dutch Housing Finance Market: Overview, De Nederlandsche bank DNB.

[7] Doff et al, R.R. (2004), Economic Capital en Risicobeheer bij Banken, NIBE-SVV, Amsterdam.

[8] Dutch National Mortgage Guarantee Scheme (NHG), Organizational Website: www.nhg.nl/.

[9] EMF Publication (2003): The Protection of the Mortgage Borrower in the European Union.

[10] EMF Publication (2004): Covered Bonds & Mortgage backed Securities in the European Union.

[11] EMF Publication (2004): The Valuation of Property for Lending Purposes in the European Union.

[12] EMF Publication (2005): Hypostat 2004, A Review of Europe's Mortgage and Housing Markets.

[13] European Mortgage Federation (EMF) (2001), Mortgage Banks and the Mortgage Bond in Europe, Nomos Verlagsgesellschaft, 3rd Edition.

[14] European Mortgage Federation (EMF), Organizational Website: www.hypo.org/.

[15] Frankel, A., Gyntelberg, J., Kjeldsen, K., Persson, M. (2004), The Danish Mortgage Market, BIS Quarterly Review.

[16] Hypsotech Consultants (2005), Blueprint Hypotheekverwerking, Masterclass Hypotheken.

[17] Kadaster/Dutch National Land Registy, Organizational Website: www.kadaster.nl/.

[18] London Economics (2005), The Costs and Benefits of Integration of EU Mortgage Markets - Report for European Commission, DG-Internal Market and Services.

[19] Low, S., Sebag-Montefiore, M., Dübel, A. (2003), Study on the Financial Integration of European Mortgage Markets, Mercer Oliver Wyman.

[20] Low, S., Sebag-Montefiore, M., Dübel, A., Bridge, P. (2005), Risk and Funding in European Residential Mortgages: Responding to Changes in Mortgage Demand, Mercer Oliver Wyman.

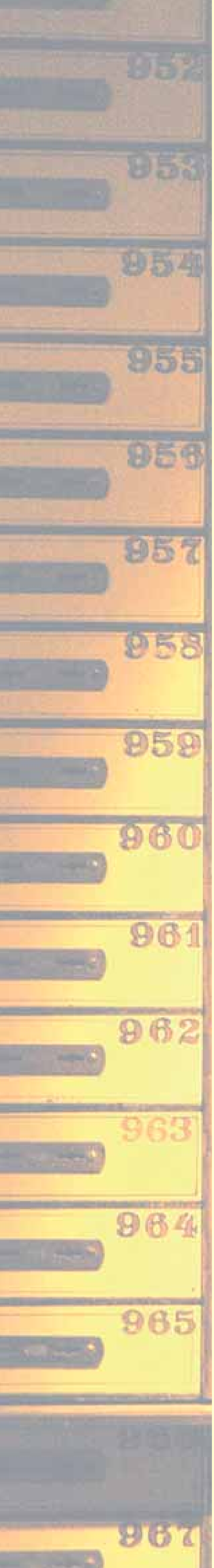
[21] National Post- and Telecom Agency of Sweden (PTS), Organizational Website: www.pts.se/

[22] Netherlands Bureau for Economic Policy Analyis (CPB), Organizational Website: www.cpb.nl/.

[23] Realkreditraadet (Association of Danish Mortgage Banks), Organizational Website: www.realkreditraadet.dk/.

[24] Thomsen J., Arthur W. (2004), System Outlook - Danish Mortgage Lenders, Moody's Banking System Outlook.

[25] Urskov, E., Nykredit (2002), The Danish Mortgage Banking Industry, OECD workshop.



hypsotech CONSULTANTS

Hypsotech Management Consultancy bv

Hypsotech is a boutique consultancy firm, fully specialised in the mortgages business. Hypsotech is serving a wide variety of clients, including lenders (e.g. ABN AMRO, ING, SNS, Fortisbank, Lehman Brothers) distributors and Servicing/IT/Consultancy companies (e.g. Quion, STATER, ATOS Origin, CAP GEMINI, Ordina) delivering services in training, research and implementation projects. In the last five years Hypsotech has become a well known and recognised consultancy firm in the Dutch mortgage market.

Hypsotech Management Consultancy bv
Stationsweg 7
1431 EG Aalsmeer
Postbus 245
1430 AE Aalsmeer
Telephone: +31 297 369 937
Fax: +31 297 361 494
Mobile: +31 611 384 183