

Mortgage financing in Denmark and the use of modern technology

Torben Gjede, secretary-general, the Council of Danish Mortgage Credit Institutions, explains how new techniques are leading to better, and faster, service

FIVE independent mortgage credit institutions work under the Danish mortgage credit system, of which three compete among themselves. The five, which are wholesale-funded institutions, finance practically all transactions in real property in Denmark by means of issuing bonds. The contact between the mortgage credit institution and the person or institution arranging the loan takes place largely by means of modern technology. This article describes the main features of the system.

The basic principle of mortgage financing in Denmark

The financing of long-term real investments (land, buildings) in Denmark is primarily managed by the mortgage credit institutions, whereas other financial institutions, eg the banks, undertake short-term lending.

While the lending activities of the financial institutions are based on an estimate of the financial situation of the potential borrower, mortgage credit loans in Denmark are in principle granted with no consideration of the personal and financial situation of the borrower in question. However, in the case of mortgage credit financing of commercial undertakings, the borrower's credit-worthiness and the potential profitability of the undertaking in question will be assessed. The main issue in connec-



'Bonds now registered electronically'

tion with the granting of a mortgage credit loan is whether the required security in real values (land, buildings, machinery, etc) is provided. Consequently the actual size of the loan is calculated on the basis of an estimate of the commercial value of such assets.

Mortgage loans are secured by a mortgage over the real property in question (in some cases including machinery, etc) as the mortgage cre-

dit institution requires a registered mortgage issued by the borrower. The institution will provide its funds solely through the selling of mortgage credit bonds. These bonds are in principle bearer bonds. (In previous times the institutions would issue printed bond notes, but due to the large quantity of bonds in circulation, the use of actual bond notes has been suspended, and the bonds are now registered electronically with the Danish Securities Centre.)

The bonds are quoted daily at the Copenhagen Stock Exchange. Thus their negotiability is facilitated, just as mortgage credit bonds may be sold freely to clients abroad with no payment of coupon-tax.

The Danish mortgage credit institutions and the Danish capital market

The Danish mortgage credit institutions have a predominant position in the Danish capital market. At the end of 1985, the total amount of registered credit granted was DKK1,312 bn (corresponding to about US\$170 bn at the exchange rate in force at the beginning of September 1986). The mortgage credit institutions' share of this total amount was about 30%; banks and savings banks accounted for about 20%; the Central Government and

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the local authorities accounted for almost 25%, and the remaining 25% relates to credit granted by insurance companies, pension funds, and foreign lenders, etc.

If we consider solely the area of loans granted against security in the form of a mortgage in real property, the annual amount of loans granted by the mortgage credit institutions totals about 90% of the total lending.

The first Danish mortgage credit institution was founded in 1797. Later, many other institutions were formed, but at the beginning of the 1970s — in connection with a major reform of the Danish mortgage credit system, one aim of which was to

introduce specific lending purposes — the institutions started to merge. Since then further mergers have taken place, and today there are five. All are members of the Council of Danish Mortgage Credit Institutions which is their trade group.

All the institutions are non-profit institutions and grant loans according to a special Danish complex of legislation which lays down the lending limits and the repayment period for loans granted to different property categories and different purposes. All the institutions are subjected to public supervision by the

Danish Supervision of Mortgage Credit Institutions. Three of the institutions grant loans on all types of real property, although not against a second mortgage on industrial property, including machinery, or on agricultural property. The granting of loans within these two areas is reserved for two specialised institutions, one for industry and one for agriculture.

The use of modern technology

On an annual basis the five Danish mortgage credit institutions handle about 300,000 new loans, ie about 1,200 per working day, and during 1985 the institutions granted loans amounting to a total of about DKK75 bn (almost US\$10 bn). As a point for comparison, the Danish gross domestic product of 1985 totalled about DKK615 bn (almost US\$80 bn).

A lending level of these dimensions, and with the application of so few costs — the margin between the debtor and creditor interest rates amounts to a mere 0.5% — is pos-

Tenure	1970 %	1980 %
<i>Owner-occupied</i>		
Single-family houses	35	41
Farm houses	9	7
Multi-family houses	5	4
Total	49	52
<i>Rented</i>		
Privately owned		20
Housing association		15
Public sector		4
Other		3
Total	47	42
<i>Unknown</i>	4	6
Number of Dwellings	1,707,000	2,133,000

Source: *Rent Policy in Denmark*, Ministry of Housing, 1983.

Year	<i>Owner-Occupied Housing</i>				<i>Rental Housing</i>	<i>All Housing</i>	<i>Non Housing</i>	<i>Total</i>
	New	Rebuilding & Extensions	Change of Ownership	Other				
	DKrm	DKrm	DKrm	DKrm	DKrm	DKrm	DKrm	DKrm
1980	6,936	5,353	1,801	252	1,955	16,297	9,055	25,352
1981	4,542	4,708	2,625	318	2,571	14,764	6,830	21,594
1982	2,339	3,298	7,444	446	4,919	18,446	4,824	23,270
1983	4,161	5,516	15,574	639	7,446	30,051	11,709	41,760
1984	5,462	8,843	17,649	475	7,275	40,204	11,856	52,060
1985	9,565	12,660	19,564	1,562	8,733	52,084	26,722	78,806

'Bond prices fluctuate daily'

sible only because all the institutions are wholesale-funded and carry out their administration in the most effective way possible.

Typically, a mortgage credit loan is granted in connection with new buildings, rebuilding and extension projects, improvements of existing buildings and in the case of change of ownership. In the case of new buildings, it is common that some financial institution — typically a bank — has financed the project during the construction phase, after which the general rule in Denmark is that the owner of the property in question desires to convert his short-term loan with the financial institution to a long-term loan (20-30 years) at a fixed rate of interest. And precisely this type of

loan is granted by a mortgage credit institution.

In the case of change of ownership, previously obtained mortgage credit loans will usually be transferred to the new owner whereupon the need for a supplementary mortgage credit loan arises. Depending on the interest rate it may, however, often be profitable for the borrower to redeem the old loans and apply for completely new loans.

Even though a borrower may contact his mortgage credit institution himself, this type of advice is typically given by a financial institution, by an attorney, estate agent or the like. The potential borrower's need of advice is increased as the mortgage credit institutions are not able to advise a borrower on all aspects and terms of the intended loan. As previously mentioned, the institutions provide their funds through the sale of bonds in the free market, and the legislation requires coherence as to time and terms between the actual loan granted to the borrower and the selling of the bonds to match it. As the bond prices fluctuate daily, the net proceeds of the loan will of course also vary.

A good contact between the representative of the potential borrower and the mortgage credit institution is therefore essential. As a consequence of this, the institutions a few years ago altered their application of electronic data processing (EDP) from being merely a tool to facilitate internal administration into being a tool of more effective and service-like activities. Thus certain mortgage credit institutions introduced the printer phone. By phoning and using the EDP centre of the mortgage credit institution, the borrower or his advisor may receive over the printer phone specific loan information including calculations of the actual terms for various loan types, eg annual repayment before and after tax (in Denmark interest payment on loans is tax deductible).

This type of communication is constantly being improved. Thus today it is possible to add micro-computers



Older-style housing in Copenhagen, the Danish capital.

or display phones to the EDP centres of the institutions. This facilitates the fast calculation and printing of consequence-tables for various loan terms, such as redemption terms for old mortgage credit loans, irrespective of which institution has previously granted such loans. Via the micro-computer, the person/institutions arranging the loan for the borrower may also actually apply for the loan, which will immediately be reg-

'Computer systems are developing rapidly'

istered with the mortgage credit institution where the procedure will immediately be initiated by forwarding the documents which must be completed before the loan is granted.

The forwarding of documents can take place on the same day or the day after the registration of the application. If the person/institution arranging the loan also possesses the necessary technology, the micro-computer can also be connected to a communication system. Thus the person/institution arranging the loan

may not only order a lending offer via his own computer, he may also receive the necessary documents on his own printer.

Today the amount of time it takes to receive a lending offer is only determined by the method of communication used. If all the necessary data — which are, in fact, few — have been recorded, the lending offer may arrive immediately with the person/institution arranging the loan, or may be printed immediately with the name of the borrower inserted on a printer. Even a common PC may be connected to the EDP centre of the institutions and thus applied.

These systems are developing rapidly. Thus financial institutions, estate agents, insurance companies, etc, who have their own EDP centres may become connected to the EDP centres of the mortgage credit institutions via terminals. Certain large-scale operations advantages are connected with this procedure. For instance a mortgage credit loan may be supplied with a guarantee scheme pertaining to the price development for bonds not on offer from the institution but arranged by, for example, a financial institution. In an integrated system, a connection

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between the mortgage credit institution and the financial institution via terminal communication may provide the lending offer with the terms required for the granting of the guarantee.

Other services may be connected with the mortgage credit loan; however, this is still a developing phase. But it will not be long before it is quite common. A prerequisite which must be met in order to obtain a mortgage credit loan is that the property in question is insured against fire. It is possible to connect the lending offer of the mortgage credit institutions with the fire-insurance offers of the insurance company in question which will be presented to the borrower as a "package solution". Also, other types of insurances may be offered to the insurer in connection with the mortgage credit loan, such as life assurance, general insurance, etc.

'Other services may be connected with the loan'

The registration of mortgages

The application of modern technology has, however, not reduced the amount of security demanded by the institutions. In order that a loan may be granted by a mortgage credit institution, the borrower must issue a mortgage deed to the amount of the loan which must provide security (mortgage) in the property in question. Thus the institution may sue to obtain satisfaction (ie taking over) in the property in question if the borrower defaults on his servicing of the loan.

The borrower remains in control of the property, but in order to secure the mortgage of the institution on the property, the mortgage deed issued by the borrower must be registered in a public registration system, and to

each registration is attached one particular number which is unique for that particular property in all Denmark. By using the registration system, a precise order of creditors who have granted a loan against a mortgage on the property in question can be established, and consequently this order can be used in the case of extraordinary redemption of the loan(s) resulting from compulsory sale of the property.

Not until the registration has been completed and the loan has been grouped in an order acceptable to the institution, or this procedure has been guaranteed, and not until the property has been insured against fire damage and the basis of such insurance has been approved by the institution — which will typically take place through an inspection of the property by a representative of the mortgage credit institution — may the loan proceeds be paid to the borrower. If the institution has received the required documents, payment may take place overnight.

Further technical development

While other countries are experiencing the development of financial supermarkets — that is, various financial institutions granting a very wide range of financial services — development in Denmark tends to go in the direction of a co-operation between the various types of financial institutions. Thus the individuality of the institutions is preserved, and the public may profit from the expert knowledge of each particular institution.

There can be little doubt that the technological development within the Danish mortgage credit system has largely been forced into being by the competition between the institutions themselves, in particular among the three largest institutions. Competition on price is not possible, as this would be reflected in the quotations on the Stock Exchange,

and there is in fact no difference between the bonds issued by the various institutions. But the institutions can compete on service and rapid handling of the applications — two areas which are well suited to the applications of modern technology.

As mentioned earlier, the mortgage credit bond as such has been replaced by electronic registration. A further restructuring of the Danish Stock Exchange is on its way to ensure that all dealings in securities

'New ways of marketing financial products'

are implemented solely electronically. At the same time the transfer of the land registration system to electronic registration is also being attempted. If these systems are combined in a co-operation between the various financial institutions which each specialise within their particular field and make use of modern technology to a very high extent, we shall in a few decades see the creation of a whole new method of marketing financial products, and at the same time we will find a basis for the development of quite new products the scope of which we may barely grasp today. ■

TORBEN GJEDE, born in 1941, is secretary-general of Realkreditrådet (The Council of Danish Mortgage Credit Institutions). He graduated from the University of Copenhagen as an economist. Before taking up his position at the Realkreditrådet he worked at the Danish Ministry of Economic Affairs and as assistant professor in Economics at the University of Copenhagen. He is a member of the executive committee of the European Community Mortgage Federation, and a member of the IUBSSA Council.