

Comparing housing finance in Nordic countries

By Torben Gjede

THE article "Mortgage finance in Scandinavia" on page 4 includes a survey of real estate financing in Denmark, Finland, Norway and Sweden. The article below examines how the regulations in these four countries are used in practice and uses as an illustration the financing of typical Scandinavian housing — a single family house and a flat in a subsidised building.

The examples given are fictitious, and may not be typical in all respects, but they should provide a good idea of the financing involved.

Single-family dwelling

Description of the property

The house, which is situated in the area of the capital, is a normal quality single-family house. However, in the Danish example, the quality is a little above average. The floor area is between 120 and 130 square metres.

In the Danish, Norwegian and Swedish example, the house is newly-built, while the Finnish house is from the 1960s. This difference is

of great importance as the loan situation in Denmark is strongly dependent on the purpose of the loan (new building, re-sale, etc), *cf* below.

The house is bought by a married couple with two children in school.

Loan situation

The loan situation will depend on lending limits, loan forms and the maximum lifetime permitted, etc. As can be seen from Table 1, there are considerable differences between the loan situations in the individual countries.

The lending limit varies from 64% of the purchase sum in Norway to 85% in Sweden. The lending limit states the *real* maximum lending limit, as in Norway there is both a maximum lending limit of 80% and also a "loan tariff" of 80% of the market value/purchase sum of the dwelling in question.

As regards lifetime, there are also considerable variations. Thus the lifetime is "merely" 15 years in Finland against 30 years in Denmark (it should be remembered that a Fin-

nish house is typically financed through a bank loan, *cf* the article concerning the general description of the mortgage credit systems). The amortisation is, of course, less of a strain the longer the life of the mortgage credit loan is.

However, the amortisation profile is not determined through the lifetime alone. The loan construction is thus also of importance to the size of the repayment amount. Both in Norway and Sweden the mortgage credit loan is repayment-free for five and two years, respectively. This is important, as the examples concern the repayment amount of the first year.

Furthermore, the amortisation also depends on the loan form, i.e. the principles on which the loan is amortised.

The loan situation is, however, also determined by the subsidies/taxes that are attached to the housing finance. Table 2 states the subsidies/taxation of owner-occupied dwellings in the individual countries. As to subsidies for owner-occupied dwellings, Denmark differs from the other Nordic countries in that no government interest subsidy is granted.

If this is compared with the fact that the taxation is largely the same in the countries described, it can be seen that the subsidising of owner-occupied dwellings is considerably lower in Denmark than in the other Nordic countries.

The family economy

The private economic situation of the family is outlined in Chart 1.

In all the examples, the family income is above the average for

Table 1
Financing of a newly-built single-family house

	Denmark	Finland	Norway	Sweden
Lending limit (maximum) ¹ (pc)	80 (80)	... (37) ²	64 (59)	85 (77)
Lifetime (maximum) (year)	30 (30)	15 (15) ²	40 (20)	...
Loan form	mixloan ³	...	serial	...

Note: The figures in () state lending limit etc in the examples. The marks ... mean that we do not have any information.

1. The lending limit concerns the mortgage credit loan.

2. Financing through bank loan (house not newly built).

3. Mixture between annuity loan and serial loan — the various types of loan are described in the appendix.

Table 2
Subsidies/taxation of owner-occupied dwellings¹

	Denmark	Finland	Norway	Sweden
Government subsidy ²		x	x	x
Deduction of interest payment	x	x	x	x
Own rental value	x	x	x	x
Property tax	x		x	x
Tax on earnings through sale of own house/dwelling		x	x	x
Capital tax ³		x	x	x

1. The stated regulations are as a principal rule the same irrespective of type of property (single-family house, terrace house, freehold flat, etc).
2. The government subsidy schemes are described in the appendix.
3. In Finland there is tax-freedom for that part of the capital which relates to the dwelling.

← 7

wage earners but may still be considered representative since families who own their own homes will typically have higher incomes.

In connection with the calculation of the tax payments, both the taxable value of the interest payments and rental value of one's own home, as well as real estate tax, have been taken into consideration. In the Danish example, the calculation of the taxable income includes payments to trade union/unemployment insurance and pension contribution, etc.

The tax payments share of the gross income varies considerably from country to country. Thus taxes in total amount to about 25% of the gross income in the Norwegian example against about 38% in the Swedish example. This difference is important in the assessment of the share of the disposable income of the gross income, since such differences may only express differences in payments to be made by the families themselves in connection with the use of public services.

If we consider the share of housing expenses of the gross income, there are also differences between the individual countries. The gross housing expenses total about 25% of the gross income in the Finnish example against about 35% in the Norwegian example.

This difference can primarily be explained through differences in the "own capital's" share of the total financing, cf Chart 2. In Finland, the own financing amounts to 63% of the financing costs against 20% and 40% in Denmark and Norway respectively. In this connection it should be remembered that the comparison concerns actual examples and that these examples may not be typical in

various respects. Thus in Finland, the government may grant housing loans up to 60% of a fixed loan value which corresponds to an own financing of 40% of the loan value.

Also, the relatively high housing costs in the Danish example can be explained by the fact that the mortgage credit loan is amortised immediately after it has been taken up and through the relatively low level of subsidies in Denmark, cf above.

Multi-family house

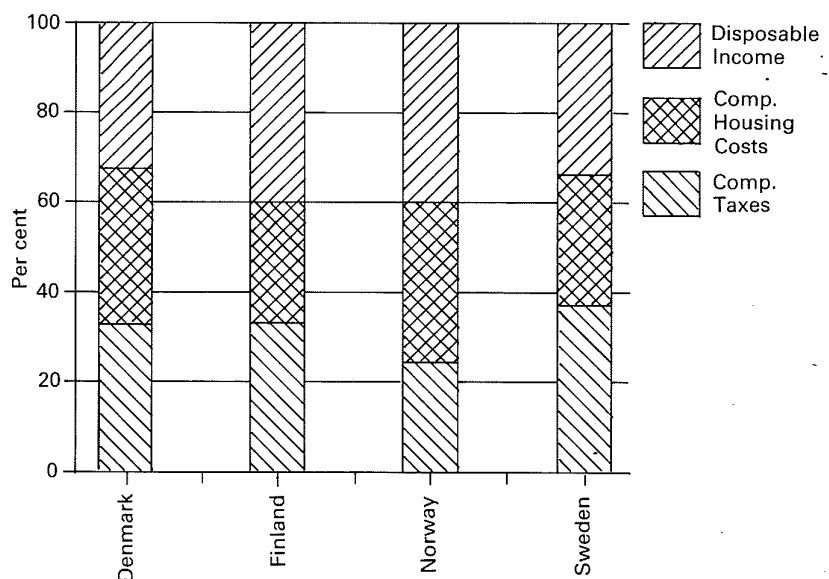
Description of the property

The property, which is situated in an area of the capital, is a newly-built rented block of flats. In the Danish, Finnish and Swedish examples we are talking about non-profit housing facilities. The flat is rented by a married couple with two children in school.

The loan situation

In the previously shown example, the loan situation was of major importance to the size of the family's housing costs. This is generally not

Chart 1. Family Economy, Single Family Dwelling



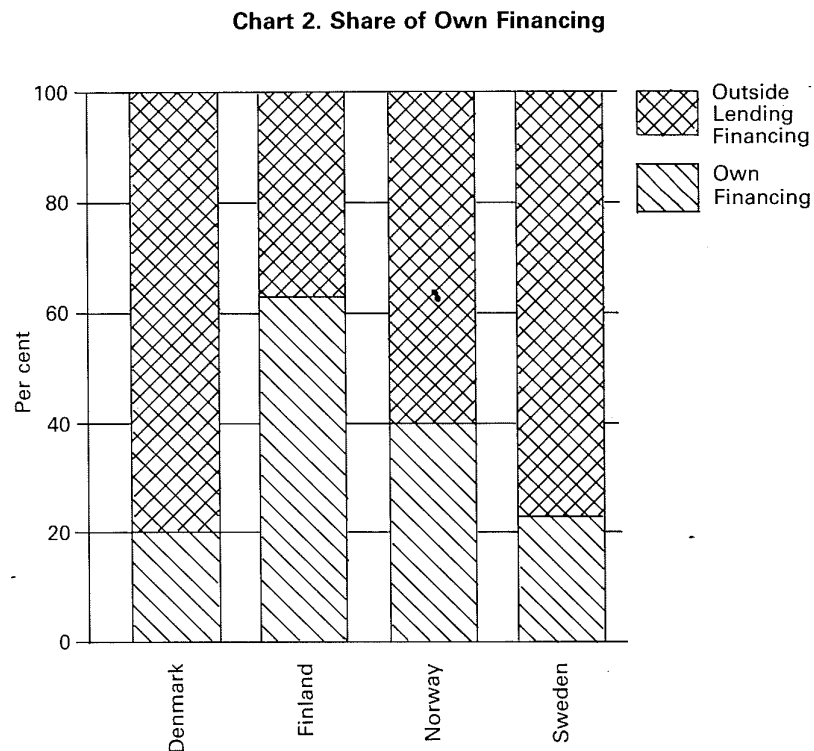
the case in this example. In Sweden the rent is thus determined according to a so-called "utilisation value principle", and so the financing terms are immaterial to the fixing of the rent.

Correspondingly, the rented housing market in Norway is influenced by a series of imperfections, and therefore the rent amounts do sometimes seem rather fixed at random. However, in the Danish and Finnish examples, the rent is in fact determined by the loan situation.

The loan situation is — as previously mentioned — determined by the lending limit, the loan form and the maximum permitted lifetime. To this should be added the effect of various subsidy forms. Table 3 shows the loan situation of the various countries.

As in the previous example, there are considerable differences between the loan situations in the individual countries. The lending limit thus varies between 88% of the construction costs in Sweden and 60% in Finland.

Also there are considerable differences in subsidies. In Denmark, non-profit housing facilities are a property category to which the government grants considerable subsidies. If the financing takes place by means of index-linked loans — see appendix (as presupposed in this example) — the government pays both an interest and an amortisation subsidy. The interest subsidy will cover all



interest payments while the amortisation subsidy amounts to 6.25% of the amortisation.

In Finland and Sweden, non-profit housing facilities are also subsidised. But here the subsidies are limited to an interest subsidy which is reduced during the lifetime of the loan.

The family economy

The private economic situation of the family is described in Chart 3. The family income in all the examples corresponds largely to the average for wage earners in the country in question.

In connection with the calculation of the tax payments, the Danish example differs from the others in that payments to trade union/unemployment insurance and pension contribution are included in the taxable income, which leads to a relatively small reduction of the tax payments.

If we consider the share of tax payments of the gross income, it is characteristic that the average family tax is considerably higher in Sweden. Seen in relation to the Danish example, this is surprising, as contributions to social insurance systems are — in contrast to the Danish example — not included in the tax

Table 3
Financing of a multi-family house

	Denmark	Finland	Norway	Sweden
Lending limit (maximum) ¹ (pc)	80	60 ²	...	88
Lifetime (maximum) (year)	35	27
Loan form	index
Subsidies	interest amortised	interest none	interest ...

Note: The marks ... mean that there is no information.

1. The lending limit relates to mortgage credit loan and the present example.

2. The lending limit relates to the government loan.

← 9

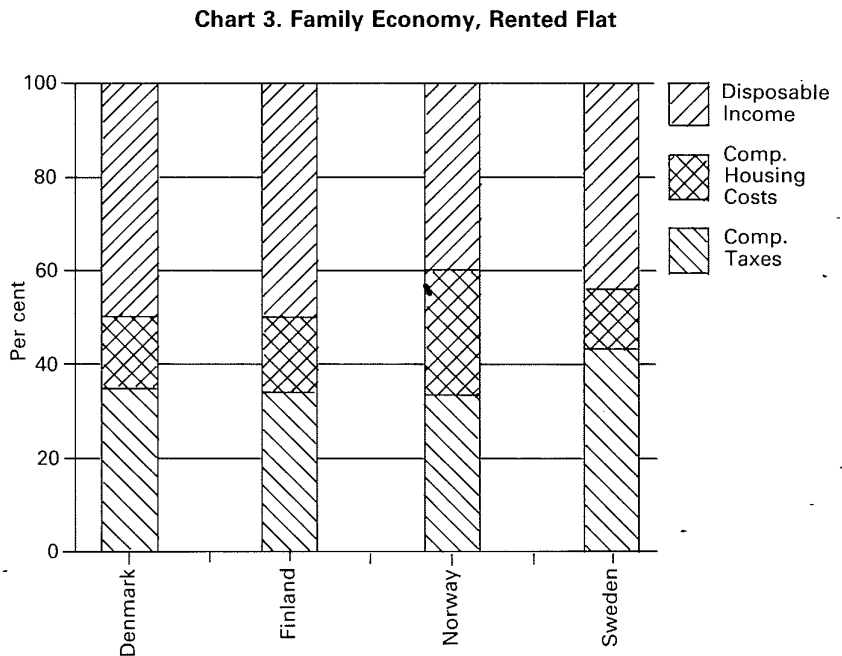
payments but paid through employer's contributions.

As regards the share of housing costs of gross income, there are quite considerable variations between the individual countries. Thus the housing costs total about 25% of the gross income in the Norwegian example against about 15% in the other examples. The relatively modest housing costs in the Danish and Finnish examples are explained through the subsidy schemes of these countries.

Summary

If we compare the disposable amounts for families living as owner-occupiers with families living as tenants, it is characteristic that the disposable amount is a much higher share of the gross income for tenant families. This is mainly attributable to the differences in subsidies. This difference should be seen in relation to the fact that families living in their own houses, typically have higher incomes than families living as tenants.

To this should be added the fact that the average tax rate is increasing due to the progressive tax system in the individual countries. On the other hand, the owner has the possibility, from his house, to



achieve a capital profit (or risk for capital loss) by sale of his property, a possibility the tenant does not have.

The two sets of examples must be evaluated and compared, with certain reservations. They are, after all, just examples and in reality there are considerable differences as to loca-

tion (town versus country), quality, the income of the occupier, financial and social circumstances, utilisation of tax rules, and so on. ■

TORBEN GJEDE is secretary-general of Realkreditradet (the Council of Mortgage Institution), Denmark.

Loan types

1. Annuity loan

The characteristic feature of the annuity loan is that on each payment date the borrower will pay a total instalment consisting of an interest amount (remaining principal at the beginning of the period multiplied by the periodical interest rate) plus a certain repayment of the principal. The total instalment to be paid is the same during the entire life of the loan.

2. Serial loan

A serial loan is repaid by equal instalments of the principal on each payment date. The total instalment

consists of both instalment on the principal and an interest payment. The interest payments are reduced along with the repayment of the principal, and therefore the total instalments decrease during the life of the loan.

3. Bullet loan

The characteristic feature of the bullet loan is that the entire principal falls due at the expiry of the loan.

4. Index loan

Index loans are based on the serial loan principle. However, after each payment date the remaining debt is adjusted in accordance with the general price development in the

community or a wage index.

Government interest subsidy schemes

The interest subsidy implies that the government will pay the difference between the market rate and a housing loan rate. The housing rate is, eg, in Sweden increased by 0.25% per year. With a market rate of about 11% and a housing loan rate of 2.7% it will be at least 30 years before the subsidy lapses, unless the market rate falls. This system means that the government will pay about half the interest expenses on average for practically the entire life of the house.