

# Keskusteluaiheita

## Discussion papers

Erkki Koskela\* and Matti Virén\*\*

HOUSEHOLD SAVING IN FINLAND,

NORWAY AND SWEDEN\*\*\*

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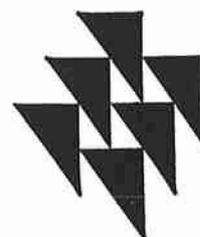
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\* Professor of Economics, University of Helsinki.

\*\* Dr. Econ., the Research Institute of the Finnish Economy.

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## 1. SOME CHARACTERISTICS OF SAVING IN FINLAND, NORWAY AND SWEDEN

There seem to be many similarities in saving behaviour in Finland, Norway and Sweden. First, the household savings ratios - savings relative to disposable income - have fluctuated quite a lot during the last decades as one can see from Figure 1<sup>1)</sup>. Savings have actually taken negative values for Norway. The savings ratios for the whole private sector have also shown huge variations.

Second, and perhaps more importantly, the level of household savings ratios in all these three countries seem to be very low by international standards. So for example the average values of the savings ratios for Finland and Sweden are about 4 % over the period 1960-80 and for Norway only about 2 % over the period 1962-1978. These values are strikingly low compared with other OECD countries. For example, the corresponding values for the United States, the United Kingdom and the Federal Republic of Germany are about 8 %, 7 % and 15 % respectively over the period 1965-1977.

Third, the fact that the household - and also the whole private sector - savings ratio has been so low in Finland, Norway and Sweden has left the public sector in the position of providing a major proportion of the national (net) saving. As it is evident from figure 2, the share of general government from national saving has been on the average 50-60 % in the 1960's and the 1970's. The corresponding shares for other OECD-countries have been much lower.

Figure 1. Savings ratios

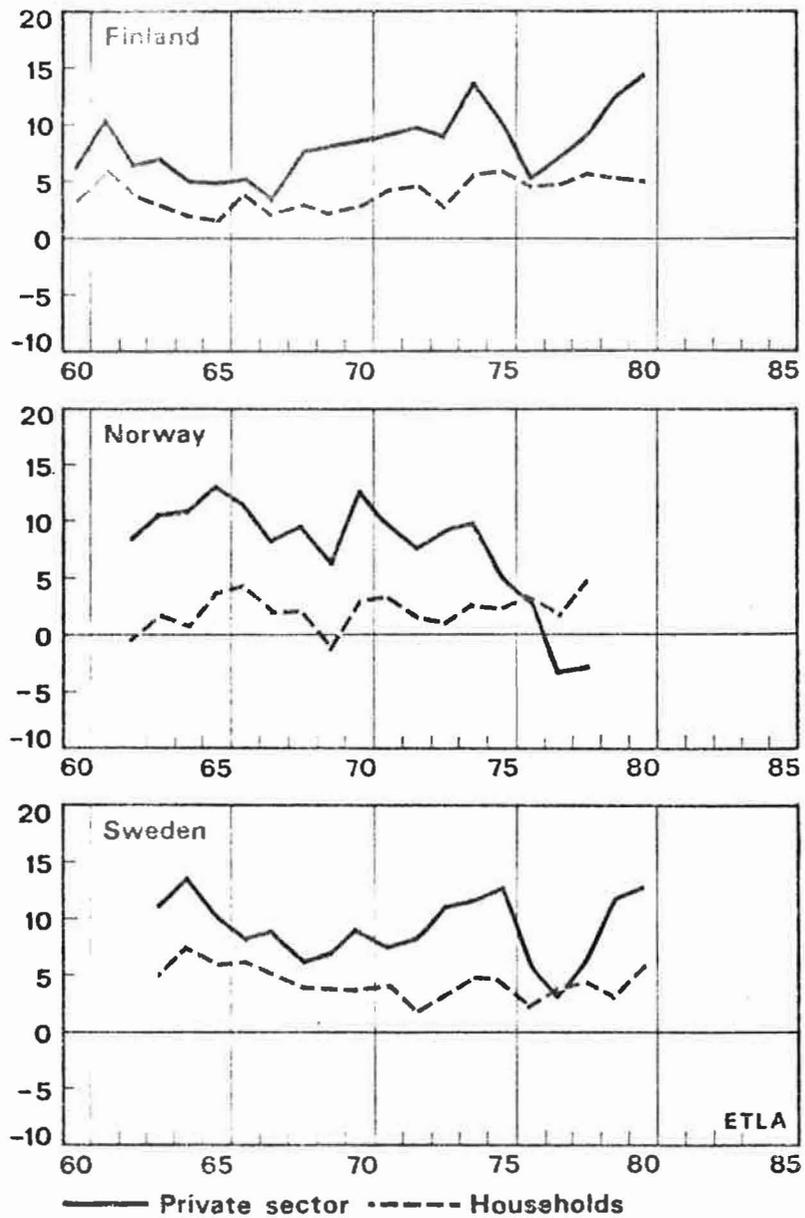
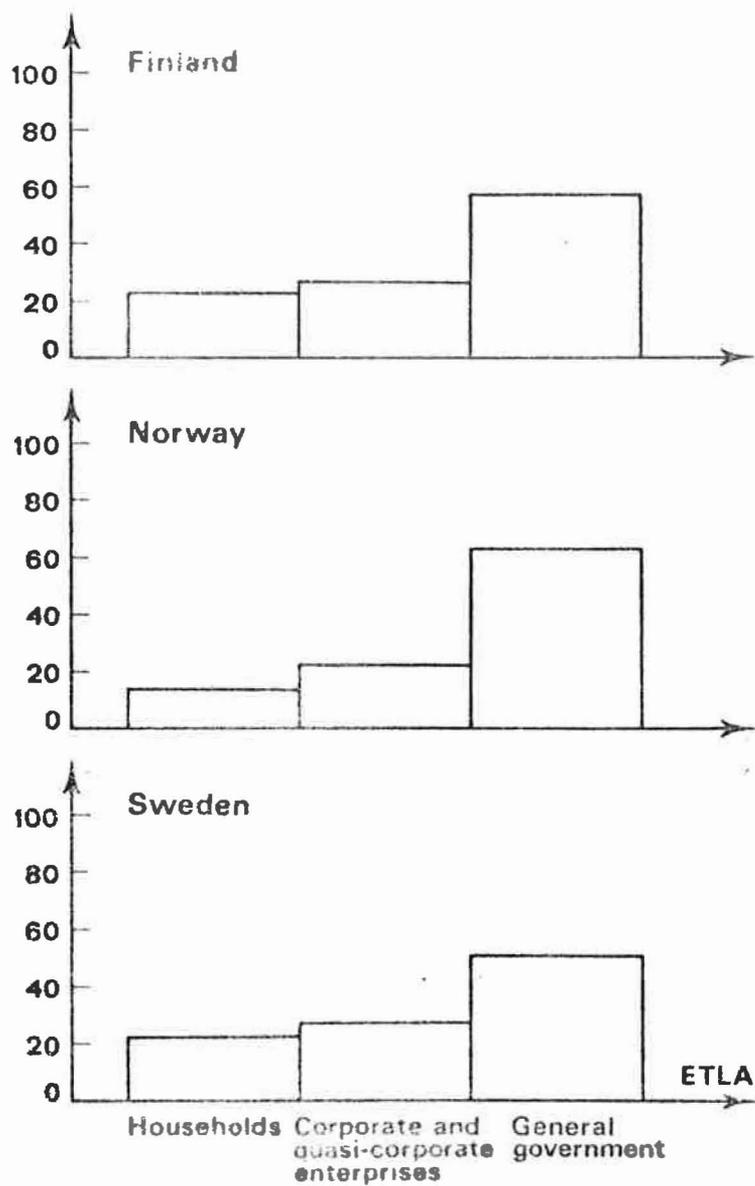


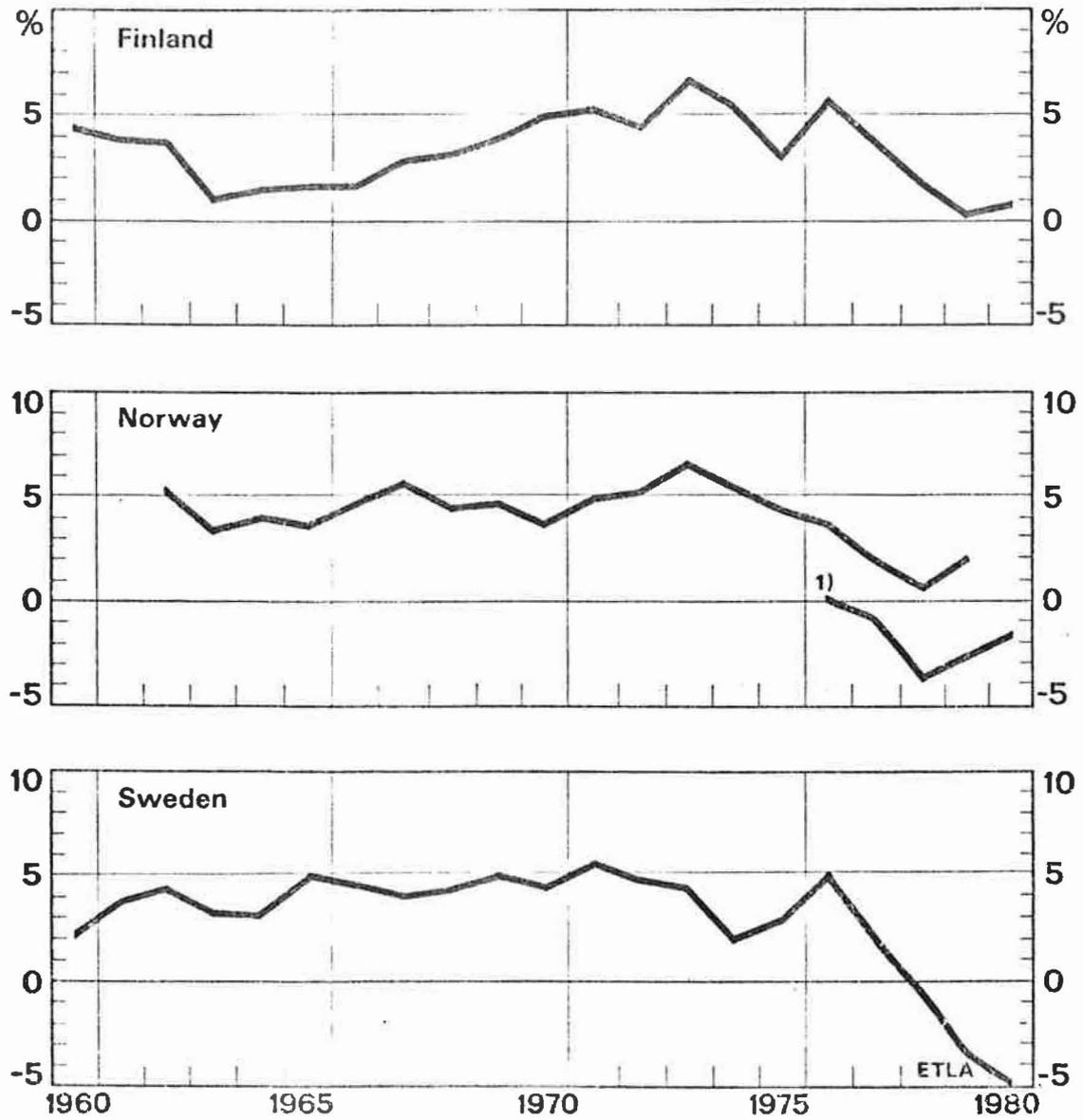
Figure 2. Distribution of saving by sectors



This sectoral distribution of savings did not necessarily give rise to any serious problems before the mid 1970's since up to that time the whole public sector saving was rather stable. In the late 1970's, however, the situation deteriorated significantly from the point of view of financing investments. During that time the net lending of general government decreased quite sharply both in Finland, Norway and Sweden. This can be noticed by looking at figure 3, where the Swedish evidence is particularly striking. It is worthwhile to stress, however, that the drop in net lending of general government, as a percentage of national income, was not accompanied by the rise in household savings ratio so that the level of national saving decreased (see figure 4).

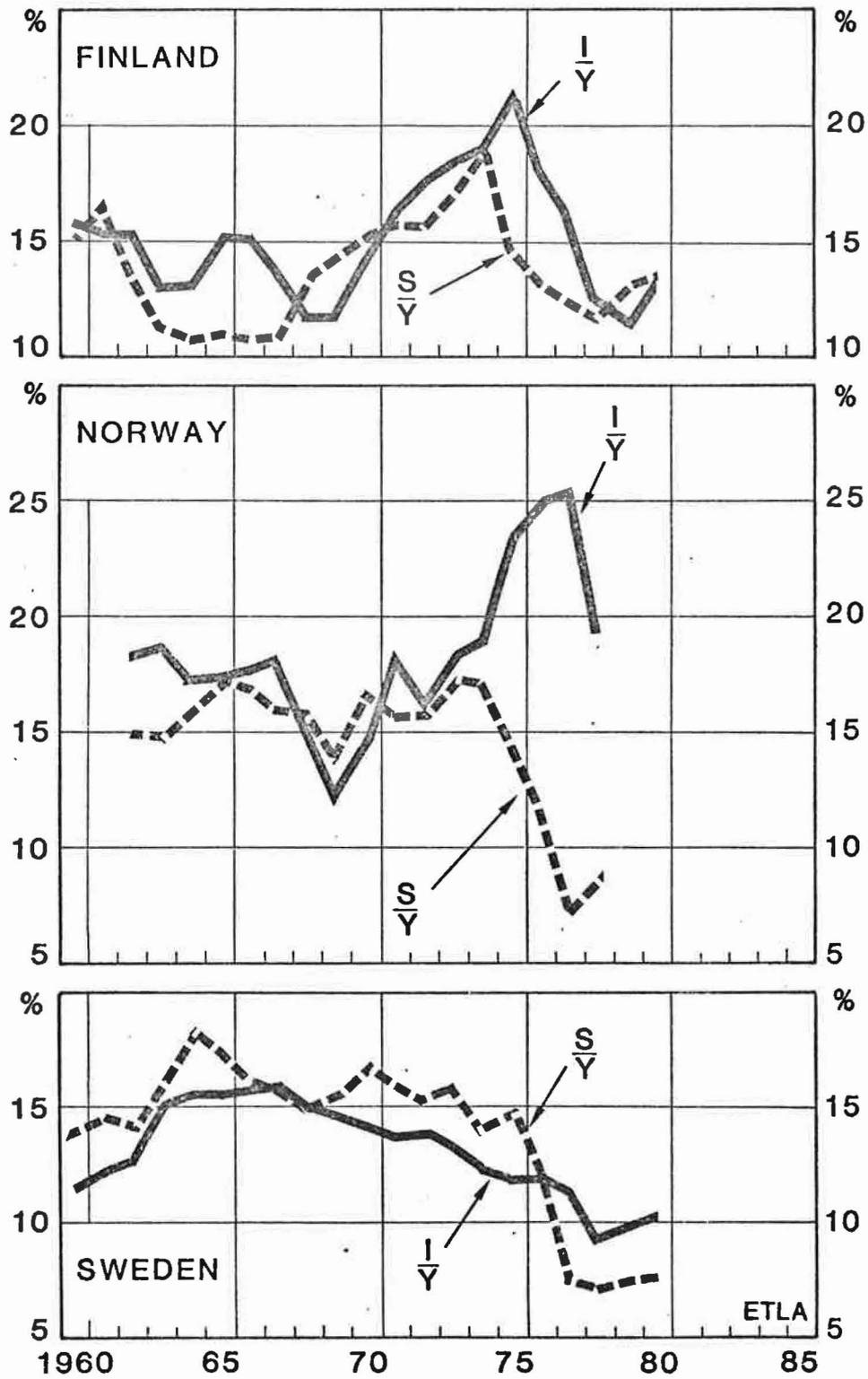
This raises the question of whether variations of national saving matter as far as changes in investments are concerned, i.e. what is the degree of capital mobility between countries. With perfect capital mobility there should be no relation between domestic saving and domestic investment: saving in each country would respond to the worldwide opportunities for investment while investment in that country would be financed by the worldwide pool of capital. On the other hand, if saving tends to be invested in the country of origin, then differences in the investment rates should correspond closely to differences in savings rates. Clearly, concern about the level of saving from the point of view of investments is only relevant if the truth lies closer to this latter view. Therefore, it is worthwhile to look at this question in the case of our sample countries.

Figure 3. Net lending of general government, % of national income



1) Including local government enterprises.

Figure 4. Saving and investment (net), % of national income



## 2. SAVING, INVESTMENT AND INTERNATIONAL CAPITAL FLOWS

Figure 4, describing savings and investment for the respective countries, makes it possible to evaluate the extent to which a higher domestic savings ratio is associated with a higher domestic investment rate. In the case of Finland and Sweden saving and investment seem to be positively related. With Norway, however, there seems to be no relationship, particularly after the first 'oil crisis', when investments in oil industry were growing to a very large extent. With Finland two major discrepancies can be discerned. The first one before the 1967 devaluation and the second one after the 'oil crisis' in 1975 and 1976 during a prolonged boom. Turning to Sweden there is a declining trend in both saving and investment; particularly in the 1970's saving decreased faster than investments.

The previous numbers concern the relationship between aggregate saving and investments. It might be also important to look at whether there are differences in the responsiveness of domestic investments to saving of different sectors. In all countries household and public sector saving seem to be rather closely associated with domestic investments, while no such interrelatedness occurs between corporate saving and aggregate domestic investments. (all these characteristics are practically identical with gross and net measures of saving and investments). This fact suggests that the dynamics of investment and saving differs considerably between sectors.

Concludingly, the evidence seems to be against high capital mobility and in favour of a rather close relation between domestic investment and saving - especially as far as Finland and Sweden are concerned.

Therefore, variations in savings constitute a major determinant of variations in domestic investments. This in turn motivates to examine factors affecting savings behaviour. The remaining part of the article is devoted to the issue of what are the main long-term determinants of household (and the whole private sector) savings ratio? In the light of low levels of household savings ratios, and decreasing public sector savings, in Finland, Norway and Sweden the importance of this question cannot be over-emphasized.

### 3. SOCIAL SECURITY, THE REAL RATE OF INTEREST AND THE DEVELOPMENT OF MONETARY SYSTEM

In recent discussions about the determinants of household savings social security and the real rate of interest have played a dominant role. Therefore, is of some interest to have a brief look at the evidence which has been presented about the significance of these variables.

During the last two decades the social security benefits, financed generally by "pay-as-you-go" means, have increased enormously. Therefore, it is not surprising that the claim according to which "social-security-depresses-saving" has become popular particularly in the 1970's. Careful empirical analyses with cross-country data from the 1970's do not, however, give support to this proposition. According to those results rises in social security benefits have tended to decrease the labour force participation rate of the aged with no clearcut effect on household savings ratio. In the case of single countries - for example in the case of Sweden - the savings ratio and social security benefits have been claimed to relate negatively to each other by using certain

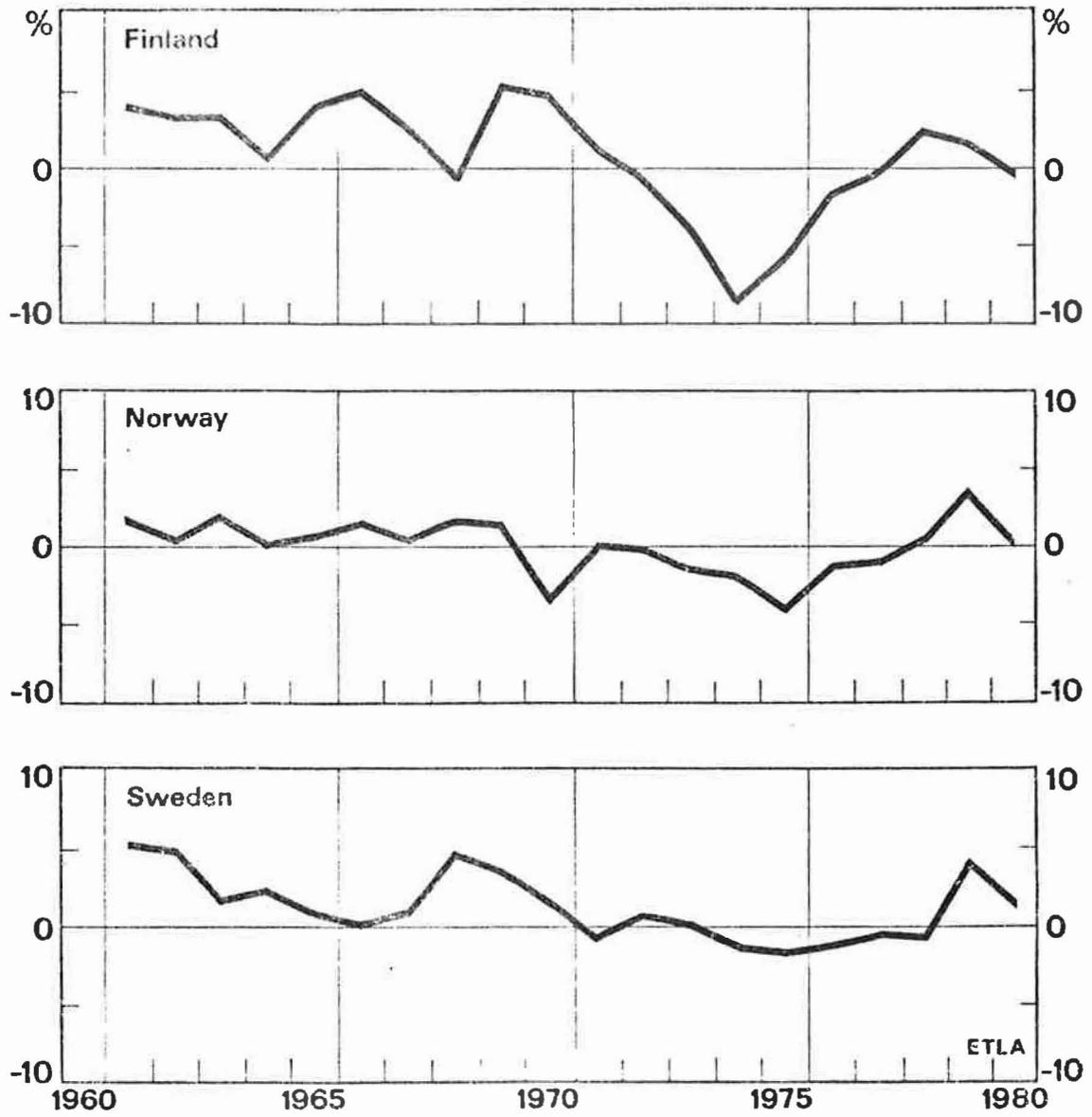
ad hoc proxies for social security 'wealth', i.e. for social security benefit expectations. Anyway, the social security benefits/GDP ratio has shown a rising trend in Finland, Norway and Sweden, but this has not accompanied by a fall in their household savings ratios.

One has often been inclined to think that the household savings ratio and the real rate of interest are negatively related.

As illustrated in figure 4, the 'real rate of interest' defined as the difference between the interest rate on (long-term) government bonds and the actual (past) rate of inflation has been mostly positive in the 1960's, while mostly negative in the 1970's both in Finland, Norway and Sweden. As far as the savings ratios are concerned, it is hard to detect any corresponding shift (see figure 1). The Finnish evidence seems to be particularly striking: the 'real rate of interest' in the 1970's was occasionally highly negative, while at the same time the trend in the household and private sector savings ratios was slightly rising thus suggesting, if any, the negative relationship between the savings ratio and the 'real rate of interest'!

The evidence pointed against the positive relationship between the savings ratio and the real rate of interest may be partly due to the very special way of measuring the real rate of interest, and one may question whether the above mentioned variable (illustrated in figure 5) describes the relevant yield on savings. Numerous empirical analyses using various data samples and various ways of quantifying the expected real rate of return on savings suggest, however, that there is no unambiguous empirical evidence for the positive relationship between the savings ratio and the 'real rate of interest'.

Figure 5. Real rate of interest



Therefore, given current available empirical evidence, cross-country variations in the 'real rate of interest' do not seem to contribute in the explanation of cross-country differences in savings ratios. Moreover, this means that the effectiveness of the policy of changing interest rates - even though it would change real rates of interest - in encouraging savings of households should not be trusted too much. In the light of rather poor performance of social security benefit, and the real rate of interest variables in explaining the levels of savings ratio a reconsideration of the whole question seems to be in order.

An obvious starting point is to analyze the role of financial system as a factor affecting savings behaviour. 'Degree of development of financial system' varies widely across countries and might provide a key to understand differences in the levels of household savings ratios. But what would be a natural hypothesis about the effect of the 'degree of development of financial system' on household savings?

The development of financial institutions means that the relative importance of secondary securities issued by financial institutions increases relative to the primary securities issued by business enterprises, governments and households. It is almost certain that there exists a fringe of lenders, particularly households, who would save less if there were no secondary securities among the financial assets to choose from. Hence, the development of financial systems tends to increase private, especially household, saving. Some recent empirical analyses by the present authors (Research papers No 13/82 Bank of Finland, Research department) do not contradict with this hypothesis. Thus one might argue that by improving the 'efficiency' of financial

system by introducing new assets one can have a positive effect on household saving. But it should be stressed that the evidence on the real importance of financial system from the point of view of savings behaviour is too scanty to warrant definite conclusions.

FOOTNOTES

- 1) All data has been compiled according to the current SNA. Lack of suitable data for Denmark prevented the inclusion of this country into the data sample. Data sources: OECD National Accounts, various issues; Statistical Reports (Sweden) N 1981:2.5, and Cappelen, A.: Income Distribution of Consumption 1962-1980, Statistisk Sentralbyrå, Oslo 1980.