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# POPULATION STUDIES

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## DEMOGRAPHIC TRANSITION AND POPULATION AGEING: CASE OF ESTONIA

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# SOCIAL BACKGROUND OF AGEING

The ageing is the process embracing the most essential changes in the social structures of demographically developed countries in the 20th century. Generally the ageing can be treated as the evolution of population age structure in the course of which age groups with different social roles are altering. The same changes in age composition also generate shifts in role distribution of different age groups.

In traditional society the oldsters constitute not a numerous group. Their role might vary by societies (as a rule, they were surrounded by honour and highly estimated because of their expierence and knowledge of traditions), but the society itself had the face of able-bodied adults. The children made up a great proportion of population at that time, but society did not accept their age-specific characters either. Children like oldsters found recognition only as far as they managed to play the roles of adults.

Traditional society lacked individual-orientation. The "weaker" demographic groups, to which belonged both children and oldsters, were therefore in inevitably suppressed situation. The condition of oldsters was in comparison with children still better for two reasons:

(1) Some functions fell to their lot in accomplishing of which they were equal to the able-bodied persons. According to E.Rosset the oldsters found a steady place in labour division since mankind's making use of fire /Rosset, 1981, pp.175-178/.

(2) A relatively small number of oldsters enabled them to enjoy certain privileges which would have been unthinkable to be extended to a larger contingent.

Modern society has brought about the proportional increase in oldsters in the face of the relative stability of adult population and the decrease in case of children. Social development has moved towards the individual-oriented model.

It seems that among the changes in age-structure the decrease in share of children firstly found its social meaning. Children-centered orientations appeared and strengthened, especially on the family level. We can have an idea of the importance of this new fenomenon, for instance, relying on A.Vichnevsky. He associates the ability of modern society to maintain the fertility on reproduction level namely because of children-centred orientations. The individualization of children brought about a range of specific, non-typical of the adults and not-accepted functions, the realization of which has needed material resources as well as rather essential shifts in social arrangements. The latter concerns firstly the family level. Without doubt, the society managed to integrate the children-oriented attidudes more painlessly because of simultaneous fall in the share of children in total population.

Social re-aarangements in connection with the oldsters are of similar character but they are more significant. The process of individualization applies in the same way to the oldsters making them also into the "full" members of society. It can be said that the society assumes both the children-orientated and the oldster-oriented character. But the social meaning of this

process is made especially significant by the simultaneously proceeding growth in the share of oldsters in population. Moreover, the individualization of oldsters is going on not primarily in family frames demanding immediate re-shaping of the social structures.

The ageing is often dealt with from the viewpoint of how oldsters integrate into modern dynamical society, how they feel themshelves and how they manage in this society. Unquestionabely, it is the standpoint of great importance. But relying on the aforementioned the ageing initiates broader changes concerning all members of society, not only the oldsters themselves. The consumer structures are re-oriented according to new population age-structure and through this the production activities are also changing. The point is not only in the new consumer needs (e.g. the rapid growth in medical service) but in the new consumer style of commonly used goods and services. The oldsters have in comparison with others considerabely more time but are on the average worse in their material possibilities. This feature makes itself more felt in the societies of deficit economy.

The ageing brings about the crucial change in the inter-generation relations. The alteration in generations is slowing down and the period of living together of different generations is growing longer. The structures in human relations alter because the circle of relatives is changing from horizontal into vertical. Till now, too little attention has been paid to this demographic result of ageing.

Summing up it can be claimed that ageing together with

individualization gives rise to the changes in social development with no rivals in significance. These changes have the objective character and are in this sense unavoidable. The society is forced to adapt itself to the new demographic situation. At the same time the process of ageing may proceed with considerable differences resulting in variation of sharpness of accompaying problems.

## II GENERAL DYNAMICS OF AGEING IN ESTONIA

Different indexes can be used for measuring ageing. One of the most general is the share of oldsters in total population. Although this index does not suit to reveal some important contemporary trends, it is rather resultative when dealing with long-term changes.

Figure 1 presents the dynamics of the share of population 60 years of age and older on the bases of Estonian population revisions and censuses. According to this index the first half of the 19th century is characterized by a certain rejuvenation. The reason is the evolution in population growth rate. As it is known, the higher the actual population increase the smaller the share of oldsters in case of other equal conditions. Since the 18th century the number of years of demographic crises (during which deaths exceed births) has became smaller and the population growth rate has increased. On the other hand, the demographic transition took place in Estonia according to the so called French model where the simultaneous decline in mortality and fertility was accompanied by a relatively weak increase in population numbers. The growth rate did not differ principally

from that of the previous period.

As a result of this matter, the process of ageing began in Estonia actually at the same time with the proceeding demographic transition. In the beginning, of course, it was weakly expressed. The steady increase in the share of oldsters continued in Estonia about 30 years after the end of demographic transition (second half of the 30ies). When the most numerous Estonian generation (born in the first decade of this century) outlived the age of 60 in the 70ies steady increase in the share of oldsters stopped.

On the basis of the long-term demographic development I should like to emphasize the following two standpoints:

(1) The ageing is caused by the demographic transition. In the course of it the young age-structure of population is replaced by the new one with considerabely higher share of oldsters. The discussion about the decrease of mortality or fertility as being the basic factor of ageing - which has been going on, at least, since the book by R.Pressat "L'Analyse Demographique" /1961/ - is of no importance if long periods are under consideration.

(2) Despite being the result of the demographic transition the ageing is not proceeding simultaneously with it, assuming as matter of fact, the meaning of a relatively independent phenomenon. In every definite period of time it is rather important task to estimate the influence of changes in mortality and fertility levels as well as the variation of numbers of birth-cohorts on ageing process. The changes of the roles of these factors to ageing has been elegantly demonstrated by W.Lutz

in case of Finland /1987/.

While Estonia, together with Latvia, passed the demographic transition earlier than other Soviet republics the avangard proceeding of the ageing is also expectable in these republics. For the present time the other regions, first of all the Ukraine, are cathing up with Estonia as regards the share of oldsters (Figure 2).

## III THE AGEING OF TWO DEMOGRAPHIC GROUPS IN ESTONIA

The Estonian population is not demographically homogenous. It consists of native population who are almost without exception the Estonians by nationality (In 1945 the Estonians made up 97.3 per cent of total population.) and of post-war migrants with their second generation. These two groups have rather different demographic behaviour (see e.g. /Katus, 1989/). The age structures are also quite different. So the ageing process is in different stages.

Figure 3 demonstrates the differences in dynamics of the share of three oldsters' age groups. The differences have been declined to some extent but in 1979 the Estonians still exceeded non-Estonians in the share of population 60 years of age and older more than twice and as for persons 75 years and older even three times.

With the increase in the migration population (at present ca 40 per cent of total population) their noticeably younger age structure strengthens the affect on the total picture of ageing in Estonia. To observe the regularities of ageing in the post-war period, it is therefore necessary to treat these two population

groups separately. Later on in the report only the Estonians as giveing the natural continuation of the pre-war period are dealt with.

The non-synchronity between the two demographic groups is an essential problem affecting the developement of the Estonian population at least during the next 30-40 years. Especially strong fluctuations in shares of oldsters would be caused by the extremely unstable age-structure of the migration population in the first decade of the next century.

## IV SOME ASPECTS ON THE AGEING DIFFERENTIATION IN ESTONIA

According to J.Olshanski and A.Brian Ault the demographically developed countries are in their fourth stage of the epidemological transition during which the rapid decline in mortality of oldsters causes structural shifts in proportions of oldsters: the share of the oldest old is increasing among them /Olshanski,Ault, 1986/. This process is of long standing in Estonia. Figure 4 presents the growth of the proportions of oldsters in comparison with the 1881 census. The most rapid continuous growth has shown the index of the oldest olds (in this case 75 years of age and older). Increase in their share has become especially evident against stabilization of the general share. The Estonian example stresses rather the long-term proceeding of the increase in the oldest olds than its explosive character at present.

In the 70ies the share of the oldest olds continues to rise compared to the stabilization of the general share of oldsters.

One of the reasons is the dynamics of birth cohorts. As the most numerous birth cohort has outlived the age of 60, the verge of 75 has not been reached yet.

Table 1

THE SHARE AND THE AVERAGE ANNUAL INCREASE IN POPULATION OF 75 YEARS OF AGE AND OLDER AMONG OLDSTERS (60 years of age and older), 1881–1979

| | Share, per cent | Average annuale increase, per cent | |
|---|---|---|---|
| 1881 | 15.1 | | |
| 1897 | 16.9 | 1881–1897 | 0.11 |
| 1922 | 18.3 | 1897–1922 | 0.06 |
| 1934 | 20.0 | 1922–1934 | 0.14 |
| 1959 | 24.4 | 1934–1959 | 0.18 |
| 1970 | 25.0 | 1959–1970 | 0.06 |
| 1979 | 30.3 | 1970–1979 | 0.59 |

The mortality of the oldest olds has also been reduced against the background of relative stability of the general mortality. The average expected life-span has not actually changed in Estonia during the last 15 years (70.3 in 1969/70 and 70.4 in 1985/86), not also at the age of 60 (accordingely 17.7 and 17.6) but at the age of 70 it has risen from 10.9 to 14.1 and at the age of 80 from 6.0 to 11.0.

Estimating the ageing process, especially in connection with the increased share of the oldest olds among all oldsters (Table 1), we can in no way come to the conclusion that the ageing as the process is stabilizing which is referred to by the general dynamics of the share of oldsters in total population. The index of the population 75 years of age and older among all oldsters has surpassed the boundary of 30 per cent and its growth has lately been especially rapid.

Table 2

THE MEAN AGE OF POPULATION AND ITS AVERAGE ANNUAL INCREASE, 1881-1979

| | Mean age | | Average annual increase |
|---|---|---|---|
| 1881 | 23.5 | | |
| 1897 | 25.0 | 1881-1897 | 0.09 |
| 1922 | 28.6 | 1897-1922 | 0.15 |
| 1934 | 31.2 | 1922-1934 | 0.22 |
| 1959 | 34.8 | 1934-1959 | 0.14 |
| 1970 | 36.0 | 1959-1970 | 0.11 |
| 1979 | 36.3 | 1970-1979 | 0.03 |

The ageing is also expressed in the increase of the mean age of population although this index is influenced by the fertility level (Table 2). In the course of a hundred years the mean age of the Estonian population has increased almost 13 years. The index has shown the greatest increase in the 30-50ies when the fertility was low. After the fertility increase in the second half of the 60ies the average growth of the mean age of population has fallen.

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Figure 1. THE SHARE OF PEOPLE OLDER THAN 60 IN ESTONIA, YEARS OF REGISTRATIONS AND CENCUSES

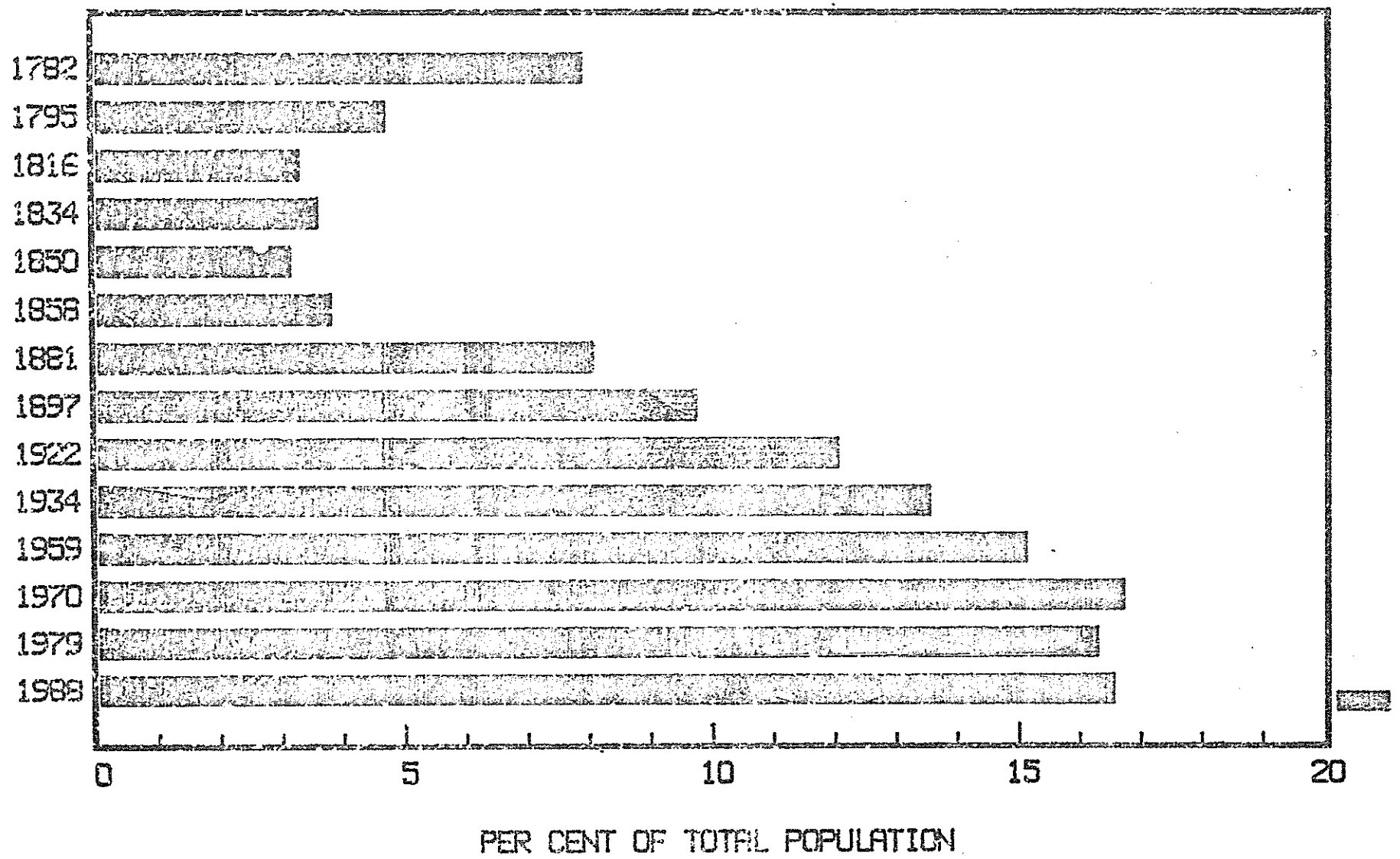


Figure 2. THE SHARE OF POPULATION OLDER THAN 60 IN SOVIET REPUBLICS, 1959-1979

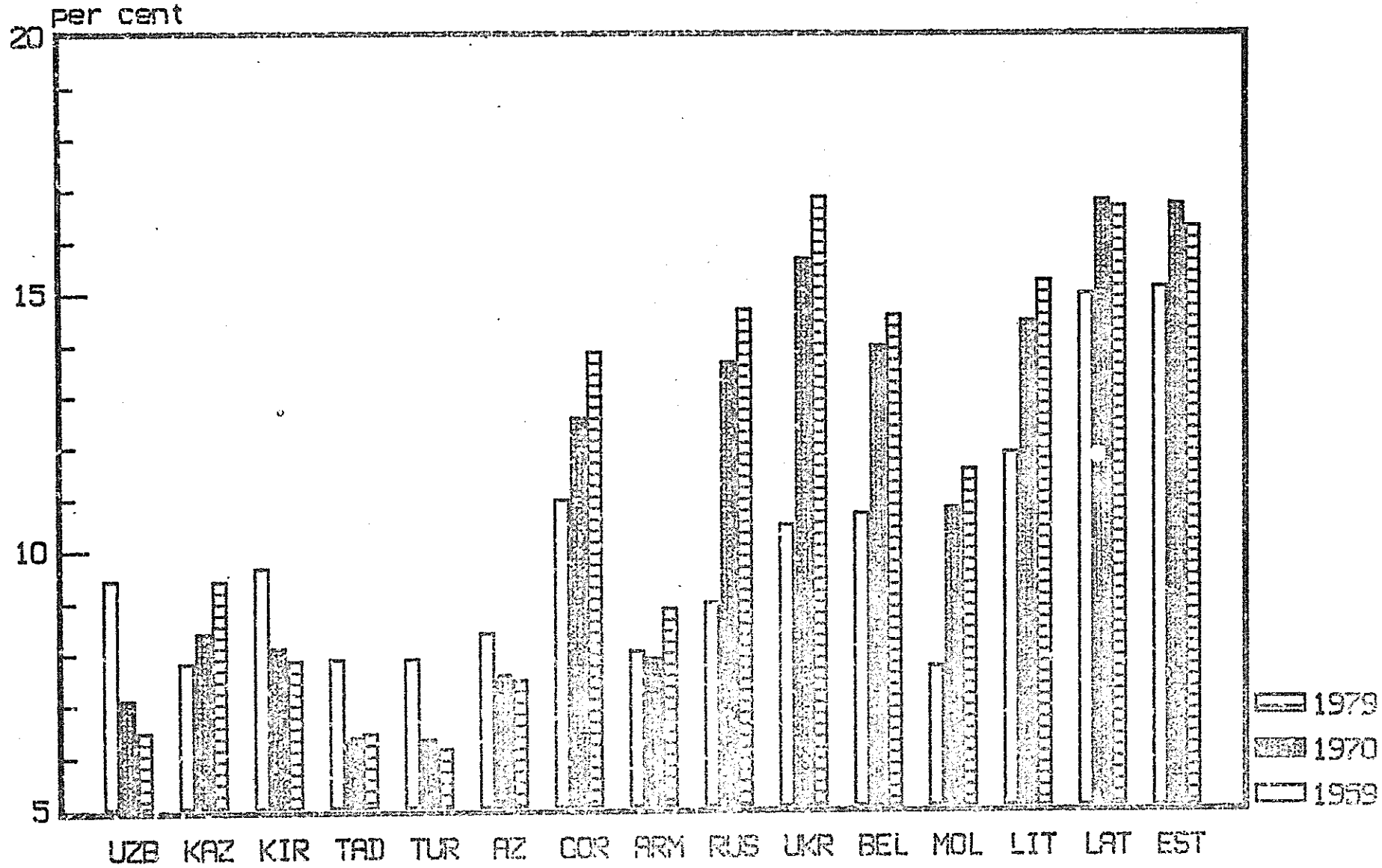


Figure 3. THE SHARE OF OLDSTERS IN ESTONIA (estonian population compared to non-estonian population, the latter is taken as 100 per cent)

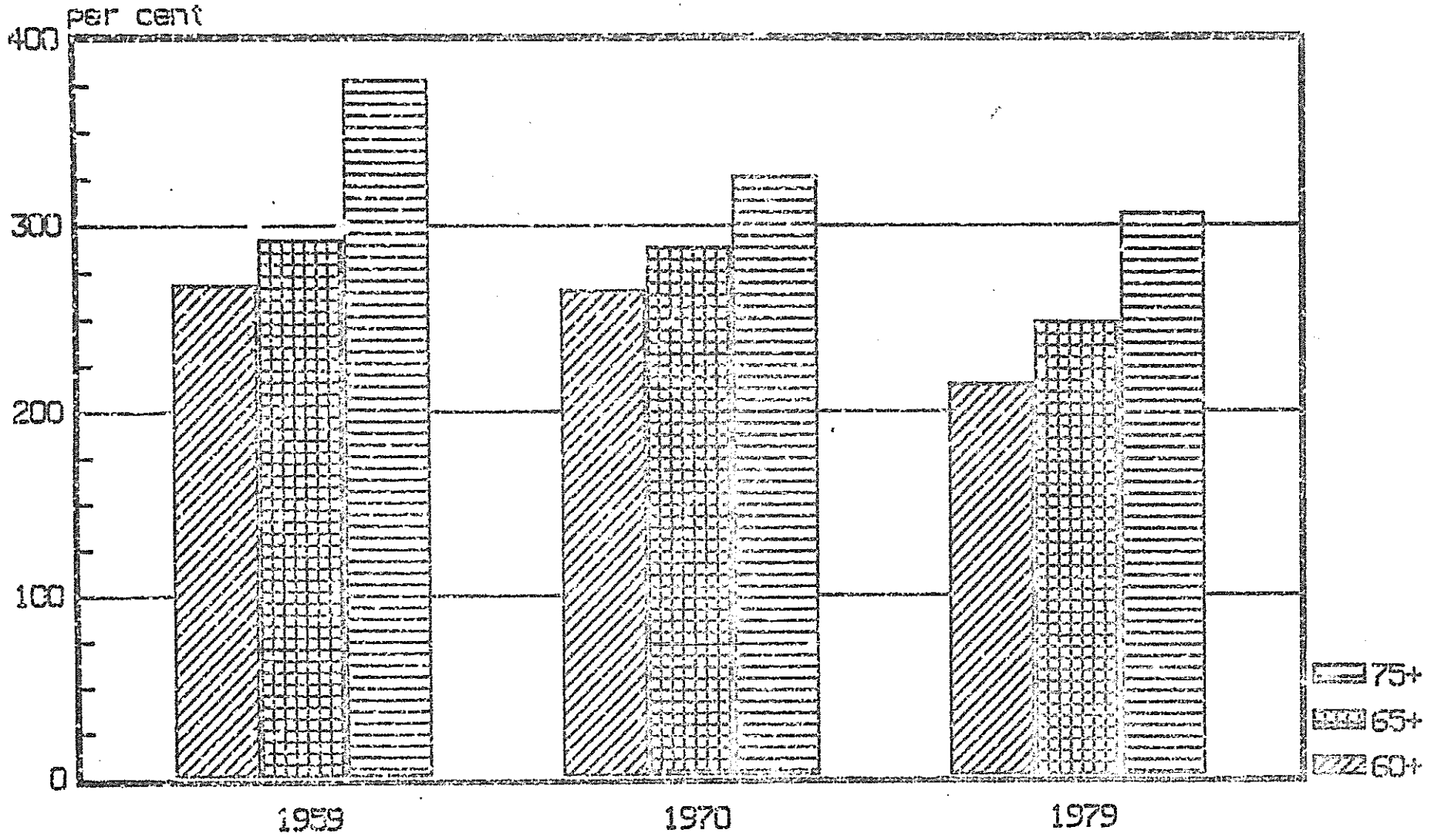
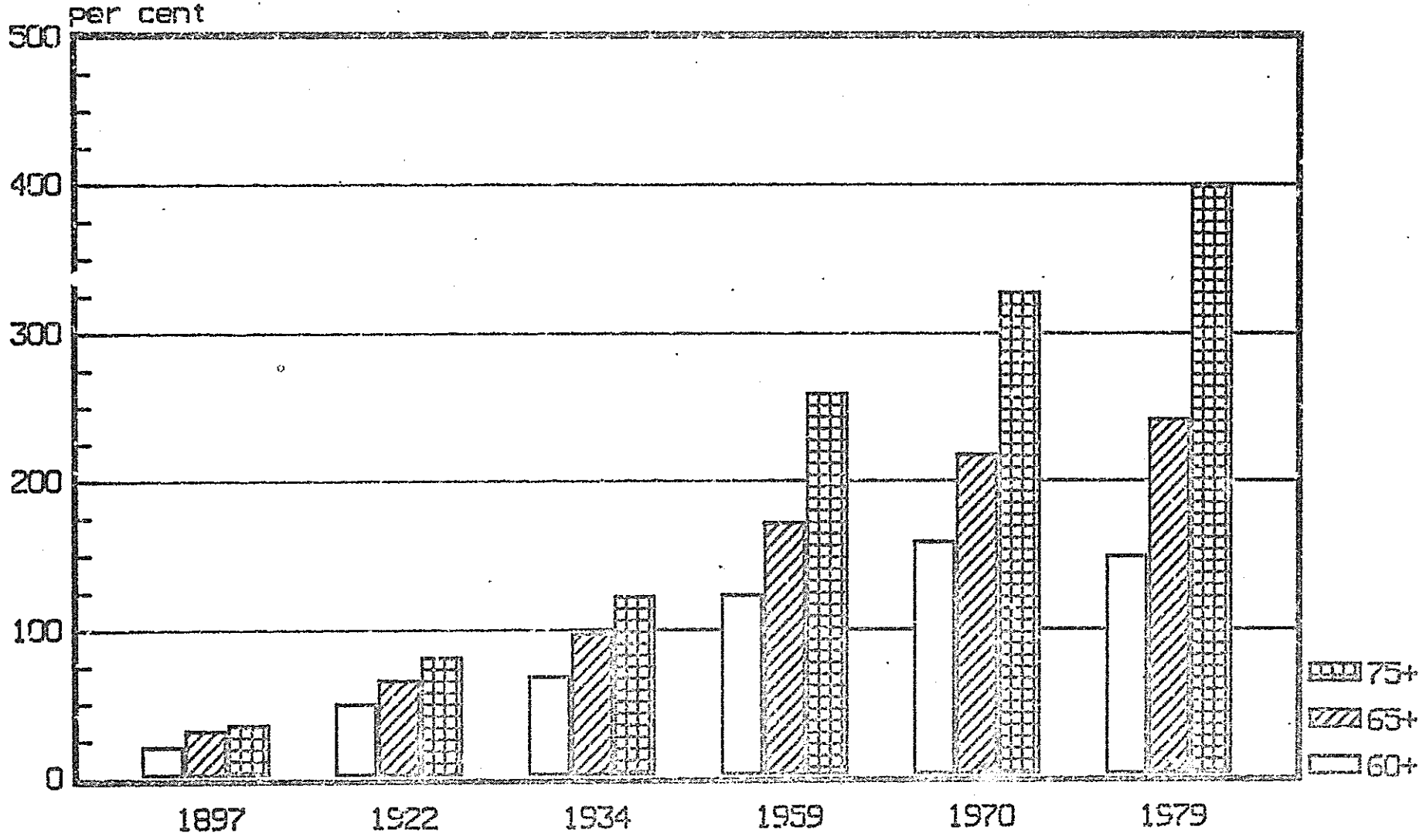


Figure 4. DYNAMICS OF THE SHARE OF DIFFERENT AGE GROUPS OF OLDSTERS IN ESTONIA, 1881-1979 (level in 1881 is taken as 100 per cent)

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