Population Stabilization in the Nordic Countries

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In the last decade a growing literature has been devoted to the question of population stabilization, i.e. bringing population growth to an ultimate stop, either immediately or within the foreseable future. The discussion does not only concern developing countries with high growth rates; it has been focused also on industrialized countries with low rates of increase.

The arguments for aiming at a zero population growth are manyfold. Some people fear exhaustion of the world resources of energy and rawmaterials. Pollution problems also, have played a significant role in the debate. Still other people have simply argued that continuation of the present growth rate is impossible due to the limitation of space. The only possibility in the long run is a world population growth of zero. Hence, we should already now begin to plan for a population stabilization.

This discussion has generated research on the demographic conditions for attaining and maintaining a constant population. Two alternative paths to a zero population growth are examined by the population projection technique, applied to actual female populations distributed by 5-year age groups.

Firstly, how long does it take to halt population growth, if the generations of females just replace themselves and how is the age structure influenced. Secondly, which changes in the level of fertility-assuming a fixed mortality level — are necessary to stop the population growth immediately, and what are the implications for the age structure. T. Frejka has examined the population of U.S.[1] while J. Bourgois-Pichat and S.-Ahmed Taleb based their calculations of the population of Mexico.[2]

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[1] T. Frejka: Reflections on the Demographic Conditions needed to Estab. a U. S. Stationary Population growth. Population Studies, Vol. 22, 1968. The same author has just published a book on the same subject, namely: The Future of Population Growth. Alternative Paths to Equilibrium. New York 1973. dl.

[2] J. Bourgois-Pichat & S.-Ahmed Taleb: Un taux d'accroissement nul pour les pays en voie de développement en 2000: Rêve cuo réalité? Population, Vol. 25, 1970.

In the present paper we will study the populations of Denmark, Norway, Sweden and Finland for a time period of 100 years (1971—2070). First is considered a situation where the generations just replace themselves. Then will be calculated the level of fertility, which leads to immediate stop of population growth in each of the Nordic countries (exclusive Iceland). In both situations, the calculations are based on closed populations, i.e. populations not subject to external migration.

I.

Our first task is to perform a population projection by means of a set of age-specific fertility rates (ASFR) and a life table. The combined growth effect of these schedules should be a net reproduction rate (NRR) = 1.0.

The Swedish life tables from 1966—70 — average expectation of life for males ($\bar{e}_0$ = 71.9 years) and females ($\bar{e}_0$ = 76.6 years) — from the assumed mortality. At this level of female mortaility a NRR = 1.0 must be based on a fertility level with a total fertility rate (TFR) of 2.1. As fertility assumptions we select the Swedish ASFR in 1968 multiplied by 1.008. This level effects a TFR of 2.10.

The mortality loss before the average age of females giving birth is very modest (2 per cent). Hence, further medical advances will have a very restricted influence on the fertility level, which is necessary to ensure a NRR = 1.0.

These fertility and mortality assumptions are not very far from the actual level in the other Nordic countries.

		$\bar{e}_0$ (males)	$\bar{e}_0$ (females)
Denmark	(1966—70)	70.6	75.4
Norway	(1966—70)	71.1	76.8
Sweden	(1966—70)	71.9	76.6
Finland	(1961—65)	65.4	72.6

Apart from Norway, the net reproduction rates are below unity (Table 1).

Table 1. Actual Measures of Fertility and Replacement in the Nordic Countries (excl. Iceland), 1966—70.

	Denmark		Norway		Sweden		Finland	
	GRR	NRR	GRR	NRR	GRR	NRR	GRR	NRR
1966	1.27	1.24	1.39	1.36	1.15	1.12	1.14	1.11
1967	1.14	1.12	1.36	1.33	1.11	1.08	1.09	1.06
1968	1.03	1.00	1.33	1.30	1.01	.99	1.01	.98
1969	0.97	.94	1.31	1.28	.94	.92	.90	.87
1970	0.95	.93	1.22	1.19	.94	.92	.89	.87

The population projections include both males and females. The sex ratio among live births (z) is set to 1.06. The calculations were performed with a slightly modified version of a FORTRAN program, made by Etienne van de Walle and John Knodel.[3] [4]

Under the given assumption the population increase in the Nordic countries will continue for several decades (Table 2, p. 92). In fact, the growth will not be zero until 50—70 years ahead, i.e. in the next century. The course taken by the crude vital rates in the next 100 years is displayed in Table 3 (p. 92). The population stabilization will be approached by slight decline of the crude birth rate (CBR) and pronounced increase of the crude death rate (CDR). The increase in the CDR of Finland is very substantial. By the end of the projection period the level of the crude rates will be identical in all Nordic countries, viz. 13.5 per 1,000 population.

Every closed population — subject to a constant set of age-specific fertility and mortality rates — will develop into a stable state. For a value of the NRR = 1.0 we get a special case of the stable population, viz. the stationary population.

Under the given assumptions great differences as to population growth will be encountered in the Nordic countries before the stationary state is attained. The growth tends to be most rapid in Finland and slowest in Sweden. The explanation is the very low level of the CDR in Finland. We will get the following increase (per cent) before the population growth is halted:

Denmark	Norway	Sweden	Finland
16	18	7	27

The differences in CDR are due to differences in age structure as the probabilities of death were assumed fixed.

The converging age structures are shown in Table 4 (p. 93). In Finland only 9. 2 per cent of the total population were above age 65 in 1971, compared with 13. 8. per cent in the Swedish population. Table 4 is illustrative also of the aging process to be expected in the Nordic populations before zero growth is reached. In the stationary state only 20 per cent of the population will be in the ages below 15, 16—17 per cent will be in the age groups over 65 years. Moreover the changes in age structure will proceed in a very smooth way.

From an economic and social point of view, a smooth population development is most desirable. In this situation investment and production may be most easily adjusted to current needs.

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[3] Etienne van de Walle and John Knodel: Teaching Population Dynamics with a Simulation Exercise. Demography, Vol. 7, Number 4, November 1970.

[4] The modification has been made by Mr. Hans Oluf Hansen, Statistical Institute, University of Copenhagen.

Let us exemplify to show how far this desire is compatible with a NRR = 1.0. As a rough estimate of the number of pupils in the compulsory part of the school system, consider the number of population in the age groups 5—14 years. Most of the development from 1971 to 1981 is unavoidable, as the age group in question is mainly made up by children born before 1971. The change during this decade is very pronounced, e.g. in Finland. Beyond 1991 the number of pupils does not change very much, which is a desirable situation from a planning point of view.

To sum up, a value of the NRR = 1.0 in the future, will not stop the population growth in the Nordic countries before another 50—70 years. The increase will range from 7 to 27 per cent, and the population will become more aged. The stationary state will be approached without strong fluctuations.

II.

We now proceed to examine the demographic consequences of an immediate stop of population growth in the Nordic countries. Assuming mortality to be defined by the Swedish life tables from 1966—70, fertility must be adjusted so that the combined effect is zero population growth ($r = 0$). The adjusted fertility level is obtained by multiplying the Swedish ASFR from 1968 with a constant factor calculated for each 5-year period (indirect standardization). The method is mainly the same as that outlined by T. Frejka.[1] Opposite to Frejka's study, the following calculations include the male sex. Consequently the size of the total population (males and females) will be constant. As actual population growth normally is slightly different for males and females, constant total population implies different rates of increase for the two sexes during most of the projection period.

In order to describe the technique applied, let us consider a 5-year period.

$B^{(1)}_{x,x+5}$: Number of population between exact age x and x+5, present at the beginning of the 5-year period.

$B^{(1)} = \Sigma B^{(1)}_{x,x+5}$: Total number of population present at the beginning of the 5-year period.

$B^{(2)}_{x,x+5}$: Number of population between exact age x and x+5, present at the end of the 5-year period.

G : Number of live births during the 5-year period.

D_1: Number of deaths among $B^{(1)}$ during the 5-year period.

D_2: Number of deaths among G during the 5-year period.

$D = D_1 + D_2$: Total number of deaths during the 5-year period.

$a_{0,5}$: Number of person-years lived until exact age 5 by the life table cohort ($l_o = 1.0$). Swedish life table 1966—70.

Single bar above a symbol indicates female sex, double bar refers to the male sex.

Further,

$f'_{x,x+5}$: Swedish ASFR 1968,

$f_{x,x+5}$: ASFR ensuring a zero value of r in the 5-year period under the given mortality assumptions.
Zero growth ($r = 0$) implies that

$$G = D = D_1 + D_2$$

$$= \bar{D}_1 + \bar{D}_2 + \bar{\bar{D}}_1 + \bar{\bar{D}}_2$$

$$= \bar{D}_1 + \bar{G}\,(1 - \bar{a}_{0,5}) + \bar{\bar{D}}_1 + \bar{\bar{G}}\,(1 - \bar{\bar{a}}_{0,5})$$

$$= D_1 + \frac{G}{1+z}\,(1 - \bar{a}_{0,5}) + \frac{z \cdot G}{1+z}\,(1 - \bar{\bar{a}}_{0,5})$$

$$O = D_1 - \frac{\bar{a}_{0,5}}{1+z} \cdot G - \frac{z \cdot \bar{\bar{a}}_{0,5}}{1+z} \cdot G$$

$$G = \frac{D_1}{\dfrac{\bar{a}_{0,5}}{1+z} + \dfrac{z \cdot \bar{\bar{a}}_{0,5}}{1+z}}$$

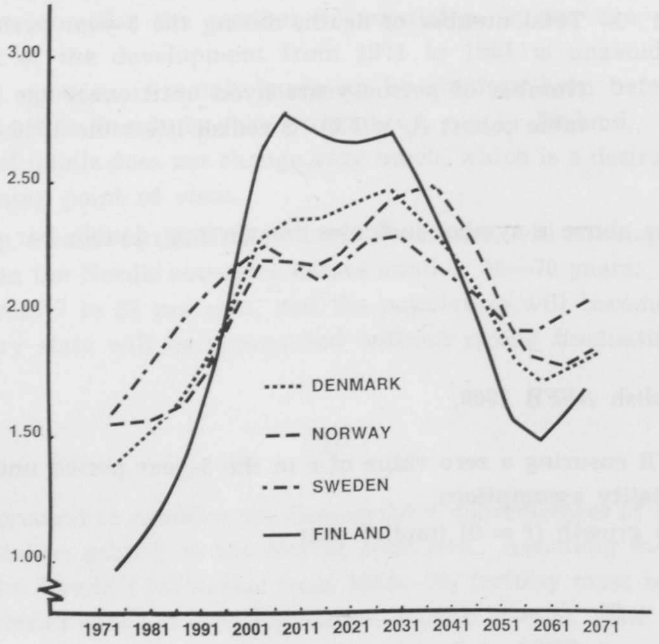
As the variables on the right hand side of the equation are known ($z, \bar{a}_{0,5}, \bar{\bar{a}}_{0,5}$) or can be calculated ($D_1$), we are able to find G.

Then $f_{x,x+5}$ is derived as follows:

$$G = \Sigma\,\bar{M}_{x,x+5} \cdot f_{x,x+5}$$

$$G' = \Sigma\,\bar{M}_{x,x+5} \cdot f'_{x,x+5}$$

Figure 1. The total fertility rate, 1971—2071 (r = 0).



where

$$\bar{M}_{x,x+5} = 2.5 \; (\bar{P}^{(1)}_{x,x+5} + \bar{B}^{(2)}_{x,x+5})$$

and G′ is the total number of live births during the 5-year period, applying the Swedish ASFR from 1968.

Assuming a constant age-specific fertility structure, i.e.

$$f_{x,x+5} = k \cdot f'_{x,x+5}$$

we obtain

$$G = \Sigma \bar{M}_{x,x+5} \cdot k \cdot f'_{x,x+5}$$

$$= k \cdot \Sigma \bar{M}_{x,x+5} \cdot f'_{x,x+5}$$

$$= k \cdot G'$$

so that

$$k = \frac{G}{G'}.$$

As both G and G' are known, the value of k can be calculated. Then by multiplying the Swedish ASFR by k, we get the ASFR, which under the given mortality assumptions leads to r = 0.

The projections for r = o were performed by means of a modified version of the earlier mentioned FORTRAN program.[5]

In Table 5 (p. 93) are displayed the values of CBR and TFR emanating from the second type of projections.

Immediate stop of population growth in the Nordic countries would demand a rather dramatic decline in fertility from 1966—70 to 1971—75.

	Denmark		Norway		Sweden		Finland	
	CBR	TFR	CBR	TFR	CBR	TFR	CBR	TFR
1966—70	15.9 [1]	2.21	17.5 [1]	2.72	14.5 [1]	2.12	15.5 [1]	2.07
1971—75	10.2 [1]	1.38	10.6 [1]	1.55	11.3 [1]	1.59	7.7 [1]	.97
Decline (per cent)	36	38	39	43	22	25	50	53

[1] Per 1,000 population.

In Denmark, Norway and Sweden the decline of the CBR would amount to 22—39 per cent. In Finland, the CBR should decline by 50 per cent to obtain a zero population growth.

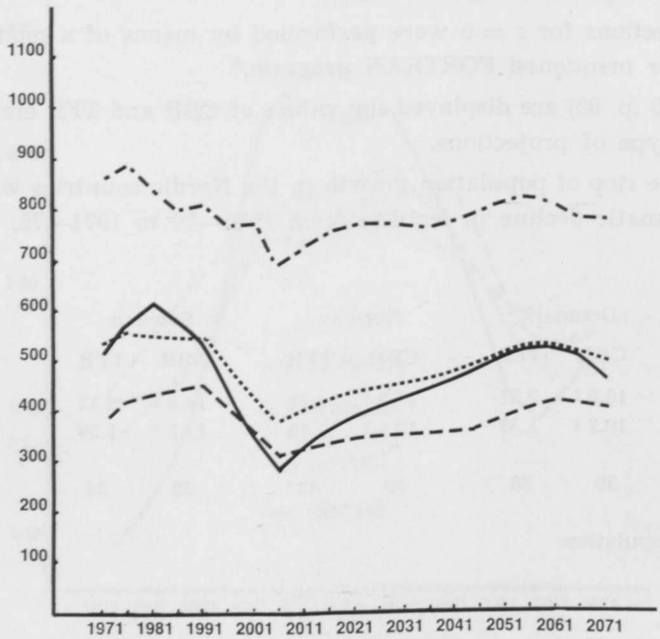
In the first three countries the average number of births per female should only amount to 1. 4—1. 6.

The average number of births per Finnish female should be below one. The very low level of the CDR (= CBR) in Finland — caused by a small proportion of population over age 65 — explains the strong fertility decline.

During the projection period fertility will be subject to an oscillatory movement in order to maintain r = o. In all countries TFR will be increasing during the first four to seven decades, followed by a decline (Fig. 1). The decline turns into a new increase by the end of the projection period. These fluctuations are very substantial. In Denmark TFR grows to 2. 5 in 2026—30, i.e. nearly twice the level in 1971—75. The maximum fertility level in Finland is three times higher than the level in 1971—75. The reasons for these peculiar fluctuations are as follows: Firstly, the low fertility level in the beginning of the projection period causes very small birth cohorts of females to enter the fertile age group (20—34 years) some decades later (Fig. 2) Secondly, CDR increases very much due to the aging of population during the first part of the projection period (Fig. 3). Therefore, the average fertility per female must be high enough to

[5] This modification has been made by Mr. Henrik Bülow-Hansen, Statistical Institute, University of Copenhagen.

F i g u r e 2. Number of females in the age group 20—34 years (in 1,000), 1971—2071 (r = 0).



F i g u r e 3. The crude death rate (per 1,000 population), 1971—2071 (r = 0).

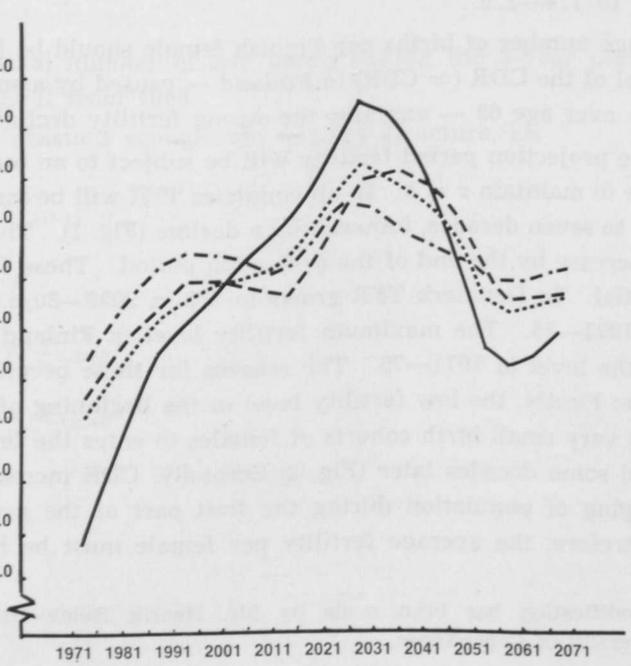
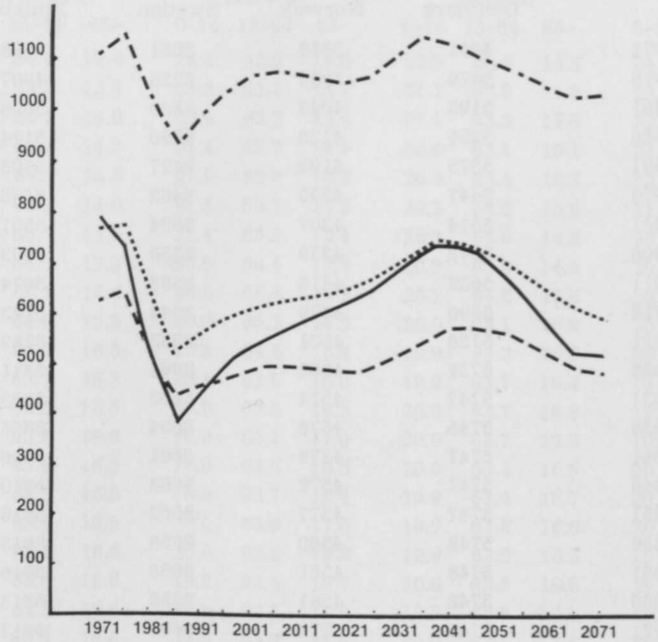


Figure 4. Number of population in the age group 5—14 years (in 1,000), 1971—2071 (r = 0).



compensate for a decreasing proportion of reproductive females and an increasing value of the CDR, as opposed to the situation at the end of the period. It is hard to see how any population would be able to cope with such requirements as to fertility changes. Further, it has been demonstrated by T. Frejka,[1] that the oscillations will continue for centuries, although with gradually damped oscillations.

Table 6 (p. 94) are illustrative of the oscillatory movement in the age distribution. As the total population size is constant, we can expect a substantial variation in the number of population within age groups. This effect is undesirable from an economic and social point of view. Fig. 4 is provided an example of these fluctuations. In all the Nordic countries, very strong oscillations appear for the population in the age group 5—14. Due to the low fertility at the outset, the number of pupils declines dramatically in Finland, viz. from 719.000 to 381.000 (47 per cent). In Denmark and Norway the decrease is considerable too, viz. 32—33 per cent. In about 50 years later the number of pupils has increased to a size slightly below the number in 1971—75. Then a new decline sets in.

In conclusion, an immediate stop of population growth in the Nordic countries is not a feasible way to population stabilization. No population would probably be prepared to subject itself to the required oscillations in fertility. Even so, it would make economic and social planning costly and unmanageable.

Table 2. Number of Population (in 1,000) in the Nordic Countries (excl. Iceland), 1971—2071. (NRR = 1.0).

	Denmark	Norway	Sweden	Finland
1971	4951	3888	8081	4598
1976	5079	3964	8226	4807
1981	5193	4043	8330	5006
1986	5290	4120	8390	5174
1991	5373	4192	8427	5303
1996	5447	4255	8462	5406
2001	5514	4307	8504	5501
2006	5578	4359	8550	5592
2011	5638	4418	8598	5674
2016	5690	4479	8640	5743
2021	5726	4531	8663	5789
2026	5739	4562	8661	5811
2031	5742	4574	8652	5809
2036	5745	4578	8654	5806
2041	5747	4579	8661	5806
2046	5747	4578	8663	5810
2051	5747	4577	8662	5818
2056	5748	4580	8659	5819
2061	5748	4581	8658	5816
2066	5748	4581	8658	5813
2071	5747	4579	8659	5813

Table 3. Measures of Population Growth (per 1,000 population) in the Nordic Countries (excl. Iceland), 1971—2070. (NRR = 1.0).

	Denmark			Norway			Sweden			Finland		
	CBR	CDR	r	CBR	CDR	r	CBR	CDR	r	CBR	CDR	r
1971—75	15.3	10.2	5.1	14.4	10.6	3.8	14.8	11.2	3.6	16.6	7.7	8.9
1976—80	15.1	10.7	4.4	15.1	11.1	4.0	14.3	11.8	2.5	16.8	8.6	8.1
1981—85	14.8	11.1	3.7	15.3	11.5	3.8	13.8	12.4	1.4	16.1	9.4	6.6
1986—90	14.6	11.5	3.1	15.2	11.8	3.5	13.7	12.8	0.9	15.0	10.1	4.9
1991—95	14.4	11.7	2.7	14.9	11.9	3.0	13.8	13.0	0.8	14.3	10.4	3.8
1996—00	14.1	11.7	2.5	14.4	11.9	2.5	13.9	12.9	1.0	14.1	10.6	3.5
2001—05	14.0	11.7	2.3	14.1	11.7	2.4	13.8	12.8	1.1	14.2	11.0	3.3
2006—10	13.8	11.7	2.2	14.0	11.3	2.7	13.7	12.5	1.1	14.2	11.2	2.9
2011—15	13.7	11.9	1.8	14.0	11.2	2.8	13.5	12.5	1.0	13.9	11.5	2.4
2016—20	13.6	12.4	1.2	13.8	11.5	2.3	13.5	12.9	0.5	13.6	12.0	1.6
2021—25	13.5	13.1	0.5	13.6	12.3	1.4	13.5	13.6	—0.1	13.4	12.7	0.7
2026—30	13.5	13.4	0.1	13.5	13.0	0.5	13.6	13.8	—0.2	13.5	13.5	—0.1
2031—35	13.5	13.4	0.1	13.5	13.3	0.2	13.5	13.5	0.1	13.6	13.7	—0.1
2036—40	13.5	13.4	0.1	13.5	13.5	0.0	13.5	13.3	0.2	13.6	13.6	0.0
2041—45	13.5	13.5	0.0	13.5	13.6	0.0	13.5	13.4	0.0	13.5	13.4	0.1
2046—50	13.5	13.5	0.0	13.5	13.6	—0.1	13.5	13.5	0.0	13.5	13.2	0.3
2051—55	13.5	13.5	0.0	13.5	13.4	0.1	13.5	13.6	—0.1	13.5	13.4	0.0
2056—60	13.5	13.5	0.0	13.5	13.4	0.1	13.5	13.6	—0.1	13.5	13.6	—0.1
2061—65	13.5	13.5	0.0	13.5	13.5	0.0	13.5	13.5	0.0	13.5	13.6	—0.1
2066—70	13.5	13.5	0.0	13.5	13.6	—0.1	13.5	13.5	0.0	13.5	13.5	0.0

Table 4. Age Structure of Population (per cent) in the Nordic Countries (excl. Iceland), 1971—2071. (NRR = 1.0).

	Denmark			Norway			Sweden			Finland		
	0-14	15-64	65-	0-14	15-64	65-	0-14	15-64	65-	0-14	15-64	65-
1971	23.2	64.4	12.4	24.4	62.6	13.0	20.8	65.4	13.8	24.4	66.4	9.2
1976	22.7	63.8	13.3	23.2	63.1	13.7	21.2	63.9	14.9	23.0	66.0	11.0
1981	21.9	64.1	14.0	22.4	63.2	14.4	21.1	63.3	15.6	22.5	65.5	12.0
1986	21.6	64.2	14.2	21.4	63.7	14.9	20.8	63.1	16.1	23.0	64.8	12.2
1991	21.4	64.3	14.3	21.9	63.0	15.1	20.4	63.4	16.2	22.5	64.9	12.6
1996	21.1	64.9	14.0	21.8	63.7	14.5	20.2	64.2	15.6	21.6	65.4	13.0
2001	20.8	65.7	13.5	21.4	65.2	13.4	20.2	65.0	14.8	20.8	66.3	12.9
2006	20.5	66.0	13.5	20.9	66.4	12.7	20.3	65.3	14.4	20.5	66.6	12.9
2011	20.3	65.1	14.6	20.5	66.4	13.1	20.2	64.2	15.6	20.5	66.2	13.3
2016	20.1	64.0	15.9	20.3	65.2	14.5	20.0	63.1	16.9	20.4	64.4	15.2
2021	20.0	63.7	16.3	20.2	64.4	15.4	19.9	63.2	16.9	20.2	63.3	16.5
2026	20.0	63.7	16.3	20.1	63.9	16.0	19.9	63.7	16.4	19.9	63.1	17.0
2031	20.0	63.5	16.5	20.0	63.5	16.5	20.0	63.7	16.3	19.9	63.2	16.9
2036	20.0	63.4	16.6	19.9	63.1	17.0	20.0	63.7	16.3	19.9	64.0	16.1
2041	19.9	63.4	16.5	19.9	63.6	16.5	20.0	63.4	16.9	20.0	63.9	16.1
2046	20.0	63.5	16.5	19.9	63.7	16.4	19.9	63.4	16.7	20.0	63.6	16.4
2051	20.0	63.5	16.5	20.0	63.0	17.0	19.9	63.5	16.6	20.0	63.3	16.7
2056	19.9	63.5	16.6	20.0	63.4	16.6	19.9	63.6	16.5	19.9	63.3	16.8
2061	19.9	63.5	16.6	19.9	63.4	16.7	20.0	63.5	16.5	19.9	63.5	16.6
2066	19.9	63.5	16.6	19.9	63.5	16.6	19.9	63.6	16.5	19.9	63.7	16.4
2071	19.9	63.5	16.6	19.9	63.5	16.6	19.9	63.5	16.6	19.9	63.5	16.6

Table 5. Fertility Measures in the Nordic Countries (excl. Iceland), 1970—2070. (r = 0).

	Denmark		Norway		Sweden		Finland	
	CBR [1,2]	TFR	CBR [1,2]	TFR	CBR [1,2]	TFR	CBR [1,2]	TFR
1971—75	10.2	1.38	10.6	1.55	11.3	1.59	7.7	.97
1976—80	11.0	1.48	11.4	1.55	12.1	1.73	9.1	1.07
1981—85	11.7	1.57	12.0	1.57	12.8	1.87	10.3	1.22
1986—90	12.3	1.67	12.5	1.63	13.3	2.00	11.4	1.44
1991—95	12.6	1.85	12.9	1.79	13.5	2.10	12.0	1.75
1996—00	12.8	2.10	13.0	2.02	13.5	2.20	12.4	2.22
2001—05	13.0	2.29	12.9	2.18	13.4	2.25	13.0	2.65
2006—10	13.1	2.35	12.7	2.20	13.2	2.20	13.6	**2.77**
2011—15	13.4	2.35	12.7	2.16	13.3	2.14	14.0	2.69
2016—20	14.0	3.39	13.2	2.20	13.7	2.18	14.6	2.65
2021—25	14.8	2.45	14.1	2.31	14.4	2.27	15.5	2.65
2026—30	15.2	**2.47**	14.9	2.43	14.5	**2.29**	16.4	2.69
2031—35	14.9	2.39	15.1	**2.47**	14.1	2.22	16.2	2.55
2036—40	14.6	2.29	15.0	2.45	13.8	2.16	15.5	2.35
2041—45	14.3	2.16	14.7	2.35	13.6	2.10	14.4	2.10
2046—50	13.6	1.98	14.2	2.16	13.4	2.00	13.1	1.81
2051—55	12.5	1.79	13.0	1.90	12.9	**1.92**	11.5	1.55
2056—60	12.3	**1.73**	12.6	1.79	12.9	1.92	11.2	**1.48**
2061—65	12.4	1.77	12.6	**1.77**	13.0	1.98	11.4	1.57
2066—70	12.6	1.85	12.7	1.83	13.2	2.04	11.9	1.71

1 Per 1,000 population. 2 CBR = CDR.

Table 6. Age Structure of Population (per cent) in the Nordic Countries (excl. Iceland), 1971—2071. (r = 0).

	Denmark			Norway			Sweden			Finland		
	0-14	15-64	65-	0-14	15-64	65-	0-14	15-64	65-	0-14	15-64	65-
1971	23.2	64.4	12.4	24.4	62.6	13.0	20.8	65.4	13.8	24.3	66.4	9.3
1976	20.7	65.6	13.7	21.8	64.2	14.0	19.8	65.1	15.1	19.5	69.1	11.4
1981	18.1	67.3	14.3	19.3	65.8	14.9	18.6	65.3	16.1	15.7	71.3	13.0
1986	16.2	68.6	15.2	16.8	67.4	15.8	17.8	65.5	16.7	13.4	73.0	13.7
1991	17.3	67.2	15.5	17.7	66.0	16.3	18.8	64.3	16.9	15.1	70.3	14.6
1996	18.1	66.5	15.4	18.4	65.7	15.9	19.5	64.2	16.3	15.6	68.1	15.3
2001	18.6	66.3	15.1	18.9	66.3	14.8	19.9	64.6	15.5	17.6	66.9	15.5
2006	18.9	65.9	15.2	19.1	66.7	14.2	19.9	64.8	15.3	18.5	65.9	15.7
2011	19.2	64.2	16.6	19.0	66.1	14.9	19.8	63.6	16.6	19.2	64.4	16.4
2016	19.5	62.3	18.2	18.8	64.5	16.7	19.7	62.3	18.0	20.0	61.0	19.0
2021	20.0	61.2	18.8	19.0	63.1	17.9	19.8	62.1	18.1	20.7	58.5	20.8
2026	20.8	60.3	18.9	19.6	61.6	18.8	20.4	62.0	17.6	21.7	56.8	21.5
2031	21.7	59.1	19.2	20.7	59.9	19.4	21.0	61.5	17.5	22.9	55.8	21.3
2036	22.1	58.1	19.2	21.7	58.3	20.0	21.2	61.3	17.5	23.7	56.0	20.3
2041	22.0	60.8	17.2	22.1	59.9	17.9	20.9	62.7	16.4	23.7	59.5	16.8
2046	21.6	62.8	15.6	22.1	61.5	16.4	20.4	63.9	15.7	22.7	62.9	14.3
2051	20.9	64.2	14.8	21.6	63.0	15.4	20.1	64.4	15.5	21.2	65.7	13.1
2056	19.9	65.3	14.8	20.6	64.2	15.2	19.6	64.7	15.7	19.2	67.6	13.2
2061	18.9	66.1	15.0	19.6	65.0	15.4	19.3	64.7	16.0	17.6	68.7	13.7
2066	18.3	66.4	15.3	18.8	65.7	15.5	19.1	64.6	16.3	16.8	68.9	14.3
2071	18.3	66.1	15.6	18.6	65.7	15.7	19.3	64.4	16.4	17.0	68.0	15.0