

C. E. I. 4 (1).

LEAGUE OF NATIONS

ECONOMIC AND FINANCIAL SECTION

INTERNATIONAL ECONOMIC CONFERENCE

GENEVA, May 1927.

DOCUMENTATION

NATURAL MOVEMENT OF POPULATIONS
DURING THE FIRST QUARTER
OF THE TWENTIETH CENTURY

GENEVA 1927

Publications of the League of Nations

II. ECONOMIC AND FINANCIAL

1926. II. 61.

NOTE ON THE NATURAL MOVEMENT OF POPULATIONS DURING THE FIRST QUARTER OF THE TWENTIETH CENTURY¹.

Never before in history have greater changes occurred in the natural movement of the peoples of Europe than those which began in the second half of the nineteenth and were greatly accelerated in the twentieth century. Although exact numerical information is lacking for earlier centuries, sufficient material is available to prove that periods of increase in the population alternated with periods of decrease. War, famine and pestilence generally sufficed to check any continued and rapid increase. From the beginning of the nineteenth century the growth of population became steadier. The average annual increase in Europe amounted to 7 per 1,000 at the beginning, fell to 6 per 1,000 towards the middle of the century, and rose again steadily to 10 per 1,000 towards the end. From 1901-10, it was 11.8 per 1,000 per annum. The total population of Europe grew from about 188 millions in 1800 to about 447 millions in 1910.

The cause of this enormous increase is to be found not in an increased fertility but in an increased longevity. Had the death rate remained as high as it was in the eighteenth century, a constant and very rapid depopulation would have taken place in the two-thirds of Europe during the last thirty years.

The decline of the birth rate began in Normandy at the very beginning of the nineteenth century and spread slowly to other parts of France, notably the Garonne valley. It was remarked in Scandinavia shortly after the middle of the century and in Great Britain and in Central Europe in the 'eighties or 'nineties. In the 'eighties, most countries still showed birth rates over 30; only in France, Ireland, Sweden and Switzerland were they below 30, and nowhere below 20.

A similar decrease occurred also in many countries outside Europe inhabited by people of European origin. In Massachusetts, for example, the decrease set in in the 'sixties, in Australia in the 'seventies and in New Zealand in the 'eighties.

The downward trend of the birth rate continued in nearly all European countries up to the outbreak of the war. From 1915 to 1919, the birth rate dwindled to about half of its pre-war level in the belligerent countries. During the next couple of years, there was an acceleration of the birth rate, which, however, was only temporary, and was followed practically everywhere by a new and even more rapid fall in natality.

In 1925, the map of the birth rate in Europe showed but little resemblance to what it had been forty years earlier. The area of very low birth rate now comprises the Scandinavian countries and the Baltic Republics, Germany, Austria, Switzerland, Belgium, France and the United Kingdom. Four countries have now a lower birth

¹ Prepared by Health Section.

rate than France, namely, Sweden, Estonia, Switzerland and England and Wales. The birth rate of Germany, which during the first ten years of the century was more than 50 per cent higher than that of France, now exceeds the latter by less than 1 per 1,000 inhabitants. The decrease will in all probability continue for some time to come. Only the countries of Eastern and South-Eastern Europe and Portugal still have birth rates exceeding 30 per 1,000.

It should be noted, however, that this general fall in the birth rate has not eliminated the differences between areas of high and low birth rate, but has merely altered their frontiers.

There are within each country very large differences in the birth rate. Thus in France areas of high fertility remain in Brittany, French Flanders and the Auvergne. The birth rate is much higher in Northern than in Southern England. In spite of the relatively high birth rate prevailing in Italy, the people of Piedmont are no more prolific than their French neighbours. In Switzerland, the birth rate of the Canton of Fribourg is nearly three times as high as that of the Canton of Geneva, only a couple of hours distant from the former.

A study of the birth rate in any large town reveals the fact that it is two or three times as high in the poorer districts as in the more well-to-do neighbourhoods. Even more marked differences are revealed by a comparison of the different social or occupational groups. This problem of the differential birth rate may prove of very serious importance. Another problem requiring investigation is the influence of the lowered average age of child-bearing, the decrease of fertility having been greatest among mothers over thirty years of age.

Diminished fertility has to a large extent been made up by a very material improvement in health conditions and a corresponding decrease of the general death rate. Early in the twentieth century, the decrease of the death rate even outstripped the fall of the birth rate, so that the natural increase of the population became greater than ever before. Leaving aside the abnormal war years, it is becoming more and more evident that the natural increase of the population is soon bound to slacken (although not to cease) in the most densely populated parts of Europe. But the fact that the general death rate is now only from 10 to 12 per 1,000 in the healthiest parts of Europe while it remains as high as 20 in very extended areas proves that there is still wide room for improvement. Even in the most advanced countries a further reduction of the death rate can and will undoubtedly be effected ; statistics for selected healthy districts prove the possibility. There is nevertheless a very definite limit to the decrease of mortality, inasmuch as life cannot as a rule be extended beyond the fourscore of years which are now reached by the few favoured by an exceptionally healthy constitution. It must be recalled that the age composition of the population in Western, Northern and Central Europe at present favours a low general death rate because of the decreasing proportion of young children (among whom the mortality is always much higher than among adults) and because the increasing proportion of persons of advanced age has not as yet made itself fully felt. The higher French death rate is, in part, due to the fact that the new demographic conditions were attained earlier there than elsewhere.

The decrease of the death rate has been brought about largely by a saving of infant life and a reduction of epidemic diseases, tuberculosis and intestinal affections. Little progress, if any, has been made in regard to the chronic affections of more advanced life. The trend of the mortality from the former group of causes shows that a further and material reduction of mortality may be expected in years to come.

The lowest death rate ever recorded for a country as a whole has been obtained in New Zealand, where only 8.3 per 1,000 inhabitants died in 1925. Death rates lower than 12 per 1,000 are now recorded in Sweden, Norway, Denmark, Germany, the Netherlands, England and Wales, the United States, Canada, Australia, Uruguay and the Union of South Africa. High death rates are still reported in many countries outside Europe, although in most of them there has been an improvement. Thus the rate is 28.5 in India, 26 in Egypt and 29.8 in Chile. An actual decrease of the population is known to be occurring in many parts of Africa; but exact vital statistics are not available.

A natural increase of the population is shown by all countries for which statistics of births and deaths are available for a period of years, as is seen from the accompanying table. The increase is smallest in France — 1.4 per 1,000 in 1925; greatest in Russia — 19.2 per 1,000 in 1923. The more favourable mortality conditions still allow an annual increase of the population of 8.7 per 1,000 in Germany, 6.1 per 1,000 in England and Wales and 5.8 per 1,000 in Sweden in spite of the very low birth rate. The very low death rate in the Netherlands allows a natural increase of 14.5 per 1,000 and in Australia of 13.7 per 1,000 per annum.

The pressure of population caused by this excess of births over deaths is, of course, not proportionate to the natural increase, but is determined by the absorption capacity of each country. Thus the natural increase of the population is between 10 and 11 per 1,000 both in Denmark and in Italy. But, while in the former country it is almost entirely absorbed by the country itself, emigration remains very important in the national life of the latter, although it had greatly diminished since the war. France is the only important immigration country in Europe.

As stated above, the increase of population must be considered in relation to age composition, which is being rapidly altered through the falling birth and death rates. The increase of about 17 per 1,000 per annum of the population in Egypt, which is brought about by a birth rate of about 43 and a death rate of about 26 per 1,000, is thus much less favourable from an economic point of view than the increase of the population of the Netherlands, which, although not much less, results from the difference between a birth rate of 24 and a death rate of under 10 per 1,000 inhabitants. It may be pointed out that, other factors being equal, countries where a considerable natural increase depends upon a low death rate and not upon a high birth rate are usually better able to absorb this increase themselves than countries with an excess due to a high birth rate.

The attached table summarises practically all the information available for the whole period under review. Three maps are added depicting the situation in Europe as regards births and deaths and natural increase of the population during the year 1925.

Marriage, Birth and Death Rates

COUNTRY	MARRIAGES					BIRTHS				
	1901-04	1905-09	1910-14	1920-24	1925	1901-04	1905-09	1910-14	1920-24	1925
U. S. S. R.	8.5 (a)	8.4	8.2 (b)	13.0 (c)	—	48.6 (a)	45.5	43.8 (b)	40.9 (c)	—
Argentine	5.7 (d)	6.9 (e)	6.9 (f)	—	—	32.8 (d)	37.2 (e)	38.5 (f)	32.2 (c)	—
Salvador	—	—	3.6 (g)	2.6 (h)	3.0 (i)	42.9	45.4	44.1	36.5 (h)	37.6 (i)
South Africa ¹	—	—	9.0 (f)	8.5 (j)	—	—	—	31.8	27.6	26.6
Egypt ²	—	—	—	—	—	43.4	45.2	44.4	42.9	42.8
Poland ³	—	—	—	10.5 (o)	7.7	—	—	—	35.4 (o)	35.9
Bulgaria	9.7	9.6	8.4	12.8 (k)	—	39.9	42.5	38.9	40.6 (k)	36.7 (c)
Netherlands	7.5	7.4	7.4	8.7	7.4	31.8	30.0	28.2	26.5	24.1
Uruguay	4.2	5.8	5.8	5.3	5.6	31.1	31.5	31.9	26.0	25.1
Australia	7.0	7.7	8.8	8.4	7.9	26.4	26.6	27.7	24.4	22.9
Roumania ⁴	8.3	9.4	9.2	11.5	8.8 (i)	40.0	40.1	41.9	38.8	33.0 (i)
New Zealand	8.1	8.6	8.5	8.5	7.8	26.4	27.3	26.2	23.0	21.2
Canada ⁵	—	—	—	7.8	6.9	—	—	—	25.0	22.5
Colombia	—	—	4.4 (l)	4.5 (j)	—	—	—	28.3 (l)	26.9 (j)	—
Japan	8.3	8.3	8.4	9.1	8.7 (i)	32.1	31.9	33.6	34.8	33.8 (i)
Lithuania ⁶	—	—	—	7.6	7.9	—	—	—	26.4	28.9
Portugal	—	—	6.7 (m)	8.4 (k)	—	—	33.5	32.5 (m)	32.3 (k)	—
Hungary ⁷	8.6	9.1	8.6	10.9	8.9	37.4	36.3	35.0	30.0	28.3
Italy ⁸	7.3	7.9	7.5	10.2	7.3	32.6	32.6	32.0	29.9	27.5
United States ⁹	—	—	—	—	—	—	—	—	23.1	22.6 (i)
Chile	5.5	6.1	5.9	6.7	7.4	38.8	38.8	39.7	39.3	40.5
Denmark	7.1	7.4	7.2	8.1	7.6	29.2	28.4	26.4	23.1	21.1
Algeria ¹⁰ (A)	7.3 (n)	7.6	7.7	10.5 (j)	—	29.3 (n)	28.7	28.3	26.9 (j)	—
(B)	10.0 (n)	7.5	6.7	4.0 (j)	—	30.5 (n)	27.3	27.3	23.3 (j)	—
Czechoslovakia ¹¹	8.2	8.1	7.3	10.6	9.2	35.5	33.0	29.8	27.3	25.1
Spain	8.3	7.1	6.9	7.7	7.2	35.3	34.0	31.2	30.3	29.3
Norway	6.2	5.9	6.2	6.5	5.9	28.9	26.7	25.4	23.5	20.0
Germany ¹²	8.0	8.0	7.6	10.8	7.7	34.7	32.3	28.2	23.1	20.6
Scotland	7.1	6.9	6.9	7.7	6.6	29.3	28.1	25.9	24.3	21.3
Latvia	—	—	—	—	8.2	—	30.8	—	21.4 (o)	22.2
Finland	6.5	6.5	6.6	5.9	6.3 (i)	31.5	31.0	28.4	23.8	22.4 (i)
Venezuela	—	—	5.0 (b)	4.5 (k)	—	—	—	30.0 (b)	30.8 (k)	—
Belgium	8.1	7.9	7.4	11.6	9.6	28.1	25.1	22.4	20.9	19.7
Northern Ireland	—	—	6.0 (f)	6.5	6.1	—	—	24.1 (f)	23.8	22.0
Switzerland	7.4	7.6	6.9	8.0	7.1	28.0	26.4	23.8	19.9	18.4
England and Wales	7.9	7.7	7.7	8.3	7.6	28.4	26.7	24.3	21.3	18.3
India	—	—	—	—	—	38.2	37.7	39.2	33.2	34.5 (i)
Ireland ¹³	5.2	5.2	5.2	4.8 (p)	4.4	23.1	23.4	23.0	19.4 (p)	19.6
Sweden	5.9	6.0	5.9	6.5	6.2	26.2	25.6	23.7	20.3	17.5
Austria ¹⁴	—	—	7.1 (q)	10.4	—	—	—	23.5 (q)	22.5	—
Estonia ¹⁵	6.8	6.9	7.1	8.8 (o)	7.9 (i)	29.1	26.5	25.0	19.2	18.2 (i)
France ⁴	7.6	7.9	7.7 (b)	11.1	9.0	21.4	20.1	19.0 (b)	20.1	19.1

(a) 1900-1904
 (b) 1910-1913
 (c) 1923
 (d) 1899-1906
 (e) 1906-1910
 (f) 1911-1914

(g) 1912-1914
 (h) 1920
 (i) 1924
 (j) 1920-1923
 (k) 1920-1922
 (l) 1915

(m) 1913-1914
 (n) 1902-1904
 (o) 1921-1924
 (p) 1922-1924
 (q) 1913

per 1,000 Inhabitants.

DEATHS					EXCESS OF BIRTHS		COUNTRY
1901-04	1905-09	1910-14	1920-24	1925	1910-14	1925	
30.9 (a)	29.4	28.2 (b)	21.7 (c)	—	15.6	19.2 (c)	U. S. S. R.
16.6 (d)	18.4 (c)	16.9 (f)	14.3 (c)	—	21.6	17.9 (c)	Argentina.
23.0	24.7	23.2	20.9 (h)	20.5 (i)	20.9	17.1 (i)	Salvador.
—	—	10.3	10.1	9.5	21.5	17.1	South Africa ¹ .
25.1	26.5	27.3	25.8	26.0	17.1	16.8	Egypt ² .
—	—	—	20.2 (o)	19.1	—	16.7	Poland ³ .
22.7	23.0	23.0	21.6 (k)	20.8 (c)	15.9	15.9 (c)	Bulgaria.
16.2	14.7	13.0	10.8	9.6	15.2	14.5	Netherlands.
12.9	13.6	13.4	11.8	11.5	18.5	13.6	Uruguay.
11.9	10.8	10.7	9.8	9.2	17.0	13.7	Australia.
26.0	25.9	24.5	24.6	19.6 (i)	17.4	13.4 (i)	Roumania ⁴ .
10.1	9.7	9.4	9.0	8.3	16.8	12.9	New Zealand.
—	—	—	10.8	9.7	—	12.9	Canada ⁵ .
—	—	18.6 (l)	14.1 (j)	—	9.7	12.8 (j)	Colombia.
24.4	20.9	20.3	22.9	21.2 (i)	13.3	12.6 (i)	Japan.
—	—	—	17.0	16.9	—	12.0	Lithuania ⁶ .
—	21.6	20.0 (m)	20.9 (k)	—	12.5 (m)	11.4 (k)	Portugal.
25.8	25.7	23.6	20.7	17.1	11.4	11.2	Hungary ⁷ .
21.9	21.7	19.2	17.4	16.6	12.8	10.9	Italy ⁸ .
16.2	15.4	14.2	12.1	11.8 (i)	—	10.8 (i)	United States ⁹ .
30.2	32.5	30.8	30.8	29.8	8.9	10.7	Chilo.
14.8	14.1	12.9	11.7	10.9	13.5	10.2	Denmark.
20.7 (n)	19.0	16.7	16.8 (j)	—	11.6	10.1 (j)	Algeria ¹⁰ (A).
21.3 (n)	20.8	18.3	20.8 (j)	—	9.0	2.5 (j)	(B).
24.1	24.1	20.2	16.9	15.2	9.6	9.9	Czechoslovakia ¹¹ .
26.2	24.9	22.3	21.1	19.4	8.9	9.9	Spain.
14.5	14.1	13.4	11.8	10.9	12.0	0.1	Norway.
19.9	18.3	16.6	13.9	11.9	11.6	8.7	Germany ¹² .
17.3	16.3	15.3	14.0	13.4	10.6	7.9	Scotland.
—	20.6	—	14.4 (o)	14.9	—	7.3	Latvia.
18.6	17.7	16.2	14.7	15.3 (i)	12.2	7.1 (i)	Finland.
—	—	21.6 (b)	23.7 (k)	—	8.4	7.1 (k)	Venezuela.
17.1	16.2	15.0	13.6	13.1	7.4	6.6	Belgium.
—	—	17.5 (f)	15.7	15.7	6.6	6.3	Northern Ireland.
17.5	16.5	14.6	12.9	12.2	9.2	6.2	Switzerland.
16.2	15.1	13.9	12.2	12.2	10.4	6.1	England and Wales.
32.2	35.4	30.7	27.7	28.5 (i)	8.5	6.0 (i)	India.
17.7	17.2	16.7	13.9 (p)	13.8	6.3	5.8	Ireland ¹³ .
15.4	14.6	13.9	12.4	11.7	9.8	5.8	Sweden.
—	—	18.2 (g)	16.8	—	5.3	5.7 (j)	Austria ¹⁴ .
18.4	19.2	18.5	16.5	15.2 (i)	6.5	3.0 (i)	Estonia ¹⁵ .
19.6	19.5	18.1 (b)	17.5	17.7	0.9	1.4	France ⁴ .

¹ White population.

² Before 1917, Bedouins were not included in the population estimates.

³ Seven provinces.

⁴ The pre-war figures refer to the pre-war territory. For Roumania the deaths include still-births.

⁵ Eight provinces.

⁶ Including Memel (Klaipeda).

⁷ For 1901-1914, pre-war territory, excluding Croatia-Slavonia.

⁸ For 1901-1923, pre-war territory.

⁹ No complete statistics are computed. The births refer to the birth registration area, the population of

which was in 1924: 76.2 per cent of the total population. The deaths refer to the death registration area, the corresponding percentage for which was 88.5 per cent.

¹⁰ A: European population. B: Native population.

¹¹ All the figures refer to the present territory except the pre-war figures for marriages which are approximate.

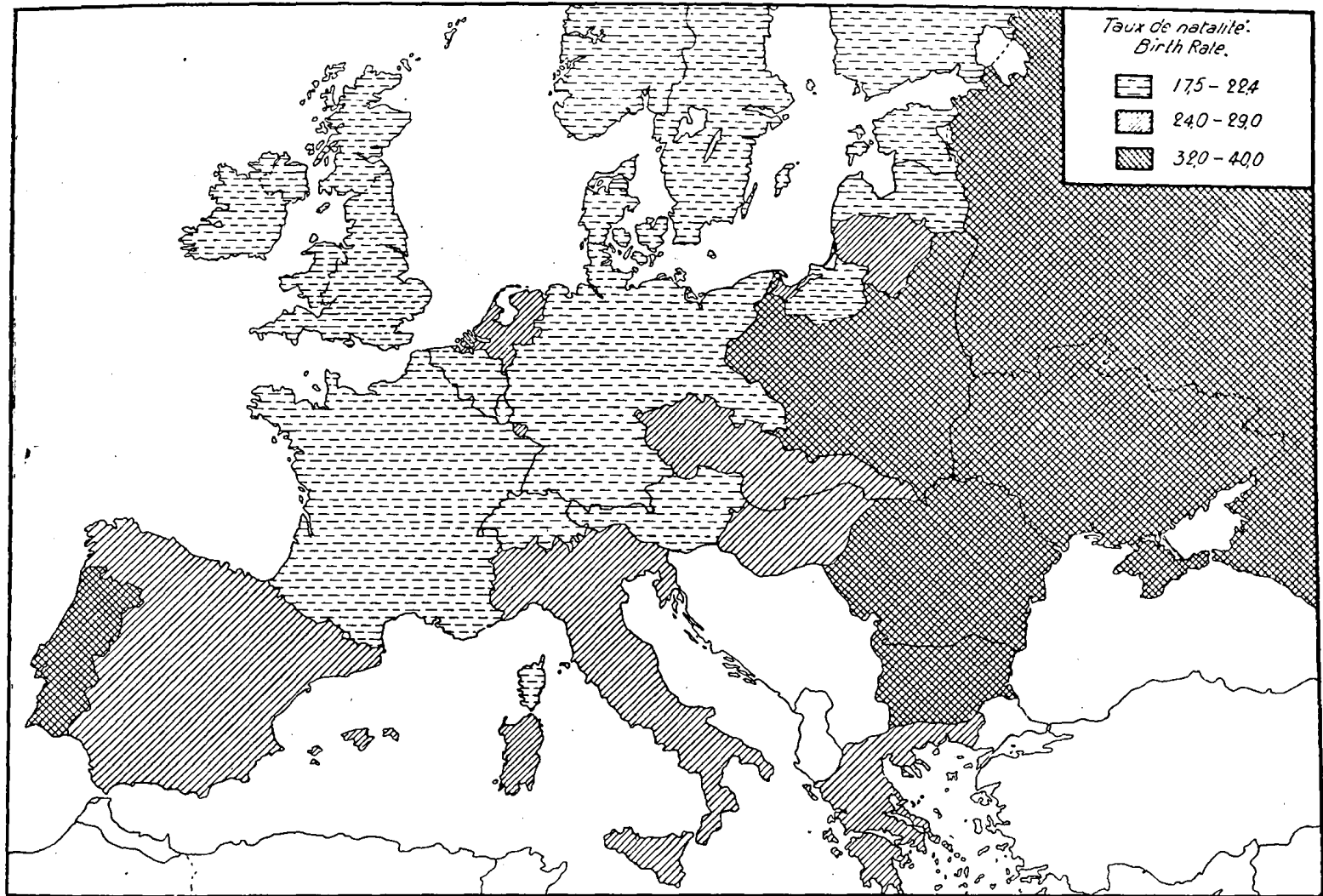
¹² For 1901-1914, pre-war territory. The post-war figures exclude the ceded territories and the Saar Territory.

¹³ Since 1922, Irish Free State.

¹⁴ Present territory, excluding Burgenland.

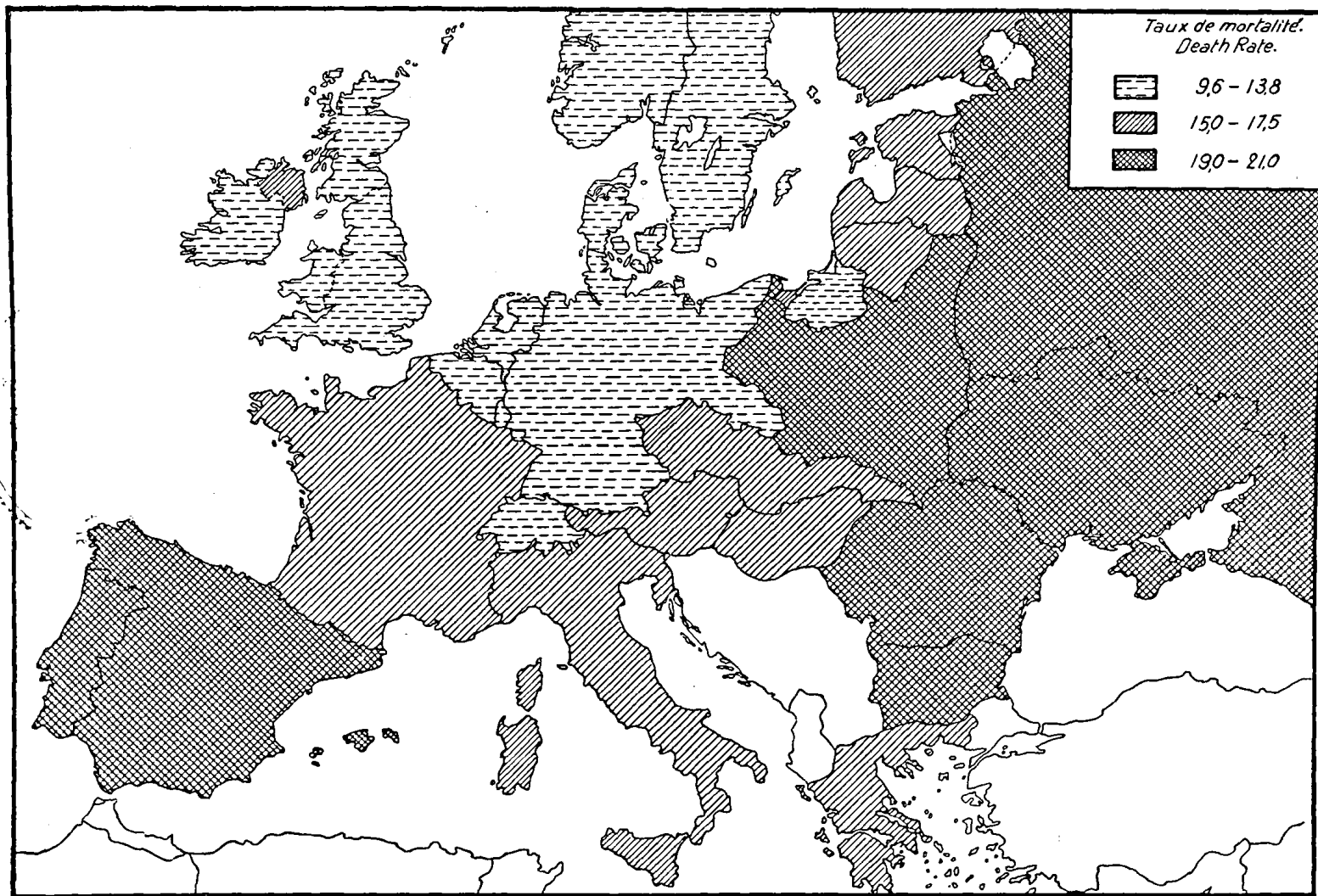
¹⁵ Up to 1914, the Russian Government of Estonia.

Birth Rate per 1,000 Inhabitants in 1925.



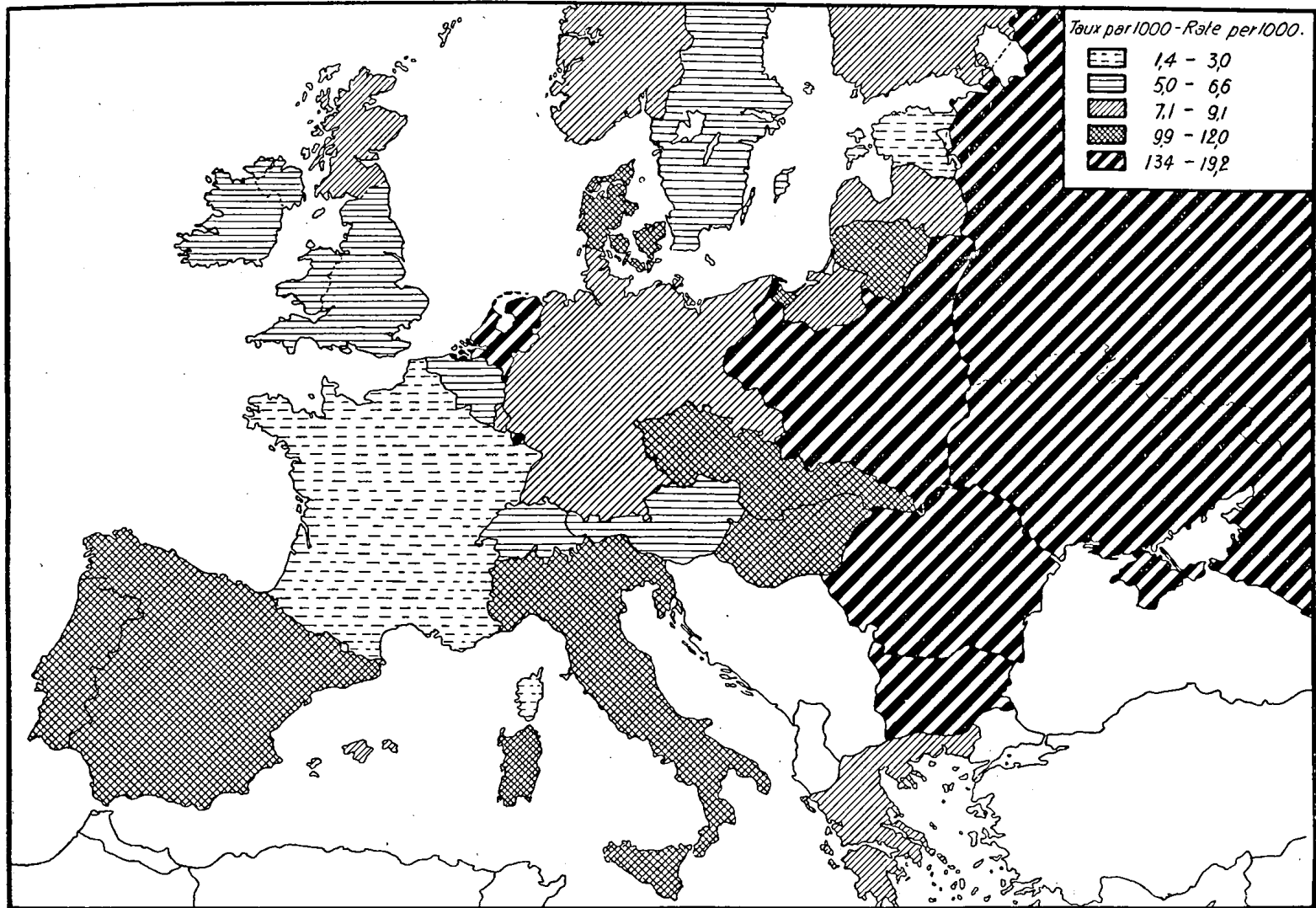
NOTE. — The shadings are based partly on information transmitted by the Central Statistical Offices and partly on data extracted from official publications.

Death Rate per 1,000 Inhabitants in 1925.



NOTE. — The shadings are based partly on information transmitted by the Central Statistical Offices and partly on data extracted from official publications.

Natural Increase of the Population per 1,000 Inhabitants in 1925.



NOTE. — The shadings are based partly on information transmitted by the Central Statistical Offices and partly on data extracted from official publications.