Volume Title: Migration and Business Cycles

Volume Author/Editor: Harry Jerome

Volume Publisher: NBER

Volume ISBN: 0-87014-008-6

Volume URL: http://www.nber.org/books/jero26-1

Publication Date: 1926

Chapter Title: The Influence of Economic Conditions in the Countries of Emigration

Chapter Author: Harry Jerome

Chapter URL: http://www.nber.org/chapters/c5272

Chapter pages in book: (p. 153 - 209)

CHAPTER VIII

THE INFLUENCE OF ECONOMIC CONDITIONS IN THE COUNTRIES OF EMIGRATION

To be comprehensive, an analysis of the cyclical aspects of migration should throw light on the relative influence of economic conditions in the countries of emigration and of immigration. Are fluctuations in the tide of migration due primarily to conditions at home or in the country of destination? Does the emigrant leave at a particular time because his status at home becomes intolerable or because the prospects in the "promised land" are unusually attractive?

If we had no better method of reaching a decision on this point, we should judge from a priori reasoning that the dominant cause of an unusual volume of emigration is most probably the attraction of unusual opportunities in the prospective home of the emigrant rather than the expelling force of unusually bad conditions in his former home. Particularly is this true of a common increase in emigration from several sources to a particular host country, especially if there is no similar increase in emigration from these same sources to other host countries.

An important consideration is that the passage money for many immigrants is furnished by relatives and friends in the United States and hence we should expect that increases in the immigration of this group would be particularly apt to show a close correspondence with prosperity in the United States.

On the other hand, we should expect that the time of arrival of immigrants who finance their own passage would be less influenced by conditions here. However, to the extent that business depressions in Europe and America occur at the same time—and we shall presently see that they are to a large degree concurrent—distress in the country of emigration will be accompanied by unemployment and low wages in the country of intended residence. Not only will it be difficult for both assisted and self-financed immigrants to obtain funds for their passage, but also the news from abroad will be depressing and little calculated to encourage the would-be immigrants to tear loose from their moorings.

An exception must be made of instances of unusual disaster in the home country. In severe famine or political oppression, even a poor chance in a new environment may appear as a relative betterment. As a result of the severe potato famines in Ireland in the late forties of the last century, great numbers of the Irish population sought escape to the newer countries, even though the conditions of transportation were wretched and during the passage many perished in fever-infested ships. Likewise, when hundreds of thousands of Armenians were driven from their homes after the collapse of the Greek campaign in 1920, they would doubtless have gladly embarked for America in large numbers had not restrictions upon immigration to the United States been imposed in 1921.

But we are concerned here, not so much with exceptional national calamities, as with the ever-recurring succession of prosperity and depression which appears to be characteristic of the modern industrial organization. In this connection, the principal questions to be considered are: to what extent are cycles in economic conditions internationally concurrent, and are they of substantially equal violence; and to what extent do fluctuations in the flow of population from countries of emigration agree? Is there a substantial uniformity in the cyclical movements of emigration or does the peak of emigration from one country coincide with the trough of emigration from another? In the following paragraphs we first turn our attention to this latter question.

COMPARISON OF CYCLICAL FLUCTUATIONS IN THE PRINCIPAL STREAMS OF IMMIGRATION TO THE UNITED STATES AND OF EMIGRATION THEREFROM

Significance of Similarities.

Are the year-to-year changes in the volume of immigration to the United States substantially the same for all countries? Or is the change in total immigration merely the non-homogeneous composite of many more or less divergent tendencies causing increases in the emigration from some countries and decreases in that from others, with no clearly predominating tendency? Such a direct comparison of the fluctuations in the immigration to the United States from the leading emigrant countries is a logical first step in determining the relative influence of economic conditions in those countries. If the flow of immigration from all countries

evidences substantially the same fluctuations, a presumption is raised in favor of the theory that economic conditions in the United States are a predominating factor, particularly if business conditions in the several foreign countries are not closely parallel and these common migratory fluctuations accord well with industrial cycles in the United States.

On the other hand, if the more common phenomenon is a marked diversity in the cyclical fluctuations of the various national or racial elements in immigration, then a presumption is created in favor of the interpretation that conditions in the country of emigration are the dominant factor or that industrial prosperity and depression in the United States is itself a phenomenon so diversified in its influence upon employment that its effect is much greater upon immigration from certain countries than upon the general immigration movement.

Method of Analysis.

The facts concerning the relative fluctuations of immigration from the several countries are presented in two ways. In the first place, they are shown by means of a table (Number 44) giving the number of immigrants from each of several countries and by charts (32 and 33) to facilitate the determination of whether changes in the number of immigrants in any given year are common to the several countries. Secondly, as a means of presenting the same facts in a way which stresses the divergence of the immigration from any one country from its usual proportion to the total immigration, a table and charts are given showing the fraction of the total immigration which is represented by the number of immigrants from each of the selected list of countries. (See Table 45 and Charts 34 and 35).

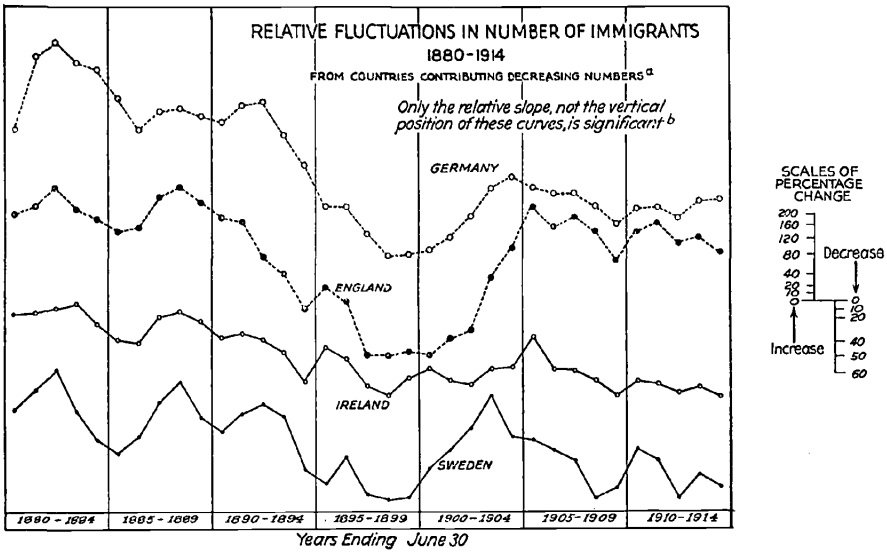
Immigration from Selected Countries.

An examination of the fluctuations in the number of immigrants from leading countries of emigration in the three decades prior to the Great War (Charts 32 and 33) furnishes reasonably conclusive evidence concerning the degree of similarity in such fluctuations.

The countries included in this graphic comparison are England, Ireland, Germany, Sweden, Russia, Italy, and Austria-Hungary from 1880-to 1914; and Greece from 1891 to 1914.

In nine of the thirty-four years covered by Charts 32 and 33, the selected immigration movements either all show an increase or all

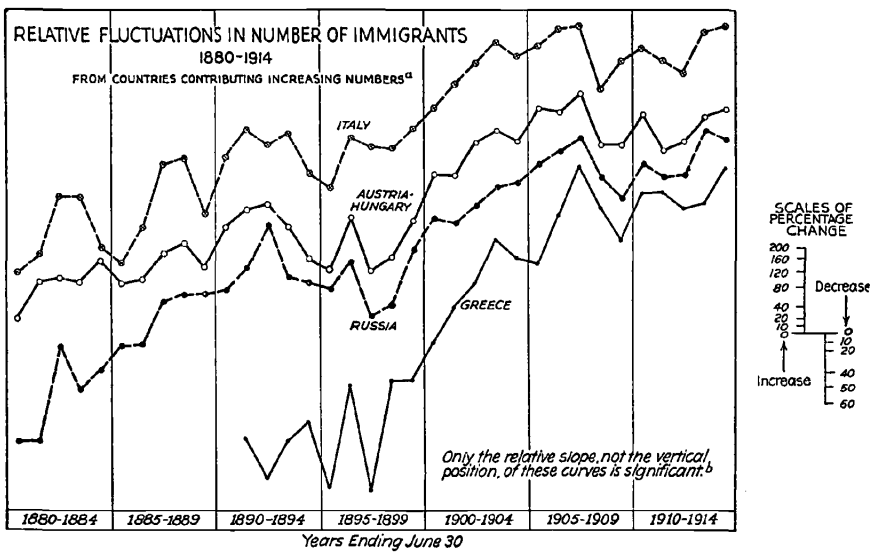
CHART 32



[a]Numerical data in Table 44.

[b]For a more complete discussion of the method of constructing the above chart, see footnote (b) to Chart 27, in Chapter VII.

CHART 33



[a]Numerical data in Table 44.

[b]For a more complete discussion of the method of constructing the above chart, see footnote (b) to Chart 27, in Chapter VII.

TABLE 44.—RECORDED NUMBER OF IMMIGRANTS TO THE UNITED STATES FROM SELECTED COUNTRIES: 1870-1914[a]

Thousands

YEAR ENDING JUNE 30	GERMANY	ENGLAND	IRELAND	SWEDEN	ITALY	AUSTRIA HUNGARY	RUSSIA	GREECE
1870	118	61	57	13	3	4	1	[b]
1871	83	57	57	11	3	5	1	[b]
1872	141	70	69	13	4	4	1	[b]
1873	150	75	77	14	9	7	2	[b]
1874	87	51	54	6	8	9	4	[b]
1875	48	40	38	6	4	8	8	[b]
1876	32	24	20	6	3	6	5	[b]
1877	29	19	15	5	3	5	7	[b]
1878	29	18	16	5	4	5	3	[b]
1879	35	24	20	11	6	6	4	[b]
1880	85	59	72	39	12	17	5	[b]
1881	210	65	72	50	15	28	5	[b]
1882	251	82	76	65	32	29	17	[b]
1883	195	63	81	38	32	28	10	[b]
1884	180	56	63	27	17	37	13	[b]
1885	124	47	52	22	14	27	17	[b]
1886	84	50	50	28	21	29	18	[b]
1887	107	73	68	43	48	40	31	[b]
1888	110	83	74	55	52	46	33	1
1889	100	69	66	35	25	34	34	[b]
1890	92	57	53	30	52	56	36	1
1891	114	54	56	37	76	71	47	1
1892	119	34	51	42	62	77	82	1
1893	79	28	44	36	72	57	42	1
1894	54	18	30	18	43	39	39	1
1895	32	23	46	15	35	33	36	1
1896	32	19	40	21	68	65	51	2
1897	23	10	28	13	59	33	26	1
1898	17	10	25	12	59	40	30	2
1899	17	10	32	13	77	62	61	2
1900	19	10	36	19	100	115	91	4
1901	22	12	31	23	136	113	85	6
1902	28	14	29	31	178	172	107	8
1903	40	26	35	46	231	206	136	14
1904	46	39	36	28	193	177	145	11
1905	41	65	53	27	221	276	185	11
1906	38	49	35	23	273	265	216	19
1907	38	57	35	21	286	338	259	37
1908	32	47	31	13	129	169	157	21
1909	26	33	25	14	183	170	120	14
1910	31	47	30	24	216	259	187	26
1911	32	52	29	21	183	159	159	26
1912	28	40	26	13	157	179	162	21
1913	34	43	28	17	266	255	291	23
1914	36	36	25	15	284	278	256	36

[a]From reports of the U. S. Immigration Commission, *Statistical Review of Immigration: 1820-1910*; and the *Annual Report of the Commissioner General of Immigration*, 1924, pp. 115-117, U. S. Bureau of Immigration. Prior to 1906, persons entering the United States were recorded by country whence they came, thereafter by country of last permanent residence.

[b]Less than 500 recorded immigrants.

a decrease. Thus, in 1881, 1882, 1887, 1888, 1903, 1910, and 1913, immigration from all these countries shows an increase, and in 1897 and 1908 a decrease. Also, in the depression of 1885 and likewise in 1889, immigration from all the selected countries but Russia declined; in 1893, a decline from all countries but Italy and Greece occurred, and from all but Greece in 1894. With the exception of the inflow from Greece, all these immigrant streams rose in 1899, and all rose in 1902 but that from Ireland. The tendency to uniformity of movement may be summarized by noting that in twenty-one of the thirty-four years under consideration three-fourths or more of the curves show changes in the same direction. It is also noteworthy that in sixteen of these twenty-one years, an increase in immigration is preceded, to use a typical index, by an increase in pig iron production in the United States, or a decrease in immigration by a decrease in pig iron production, in the calendar year ending six months prior to the close of the given immigration year.

In the post-war years from 1920 to 1924, inclusive, which are not shown on Charts 32 and 33, the conformity in the direction of year-to-year change was even more uniform, all the selected countries showing a movement in the same direction, with the exception of Russia in 1920, Germany and Austria in 1922, Greece in 1923, and Russia and Austria-Hungary in 1924.

Differences in Degree.

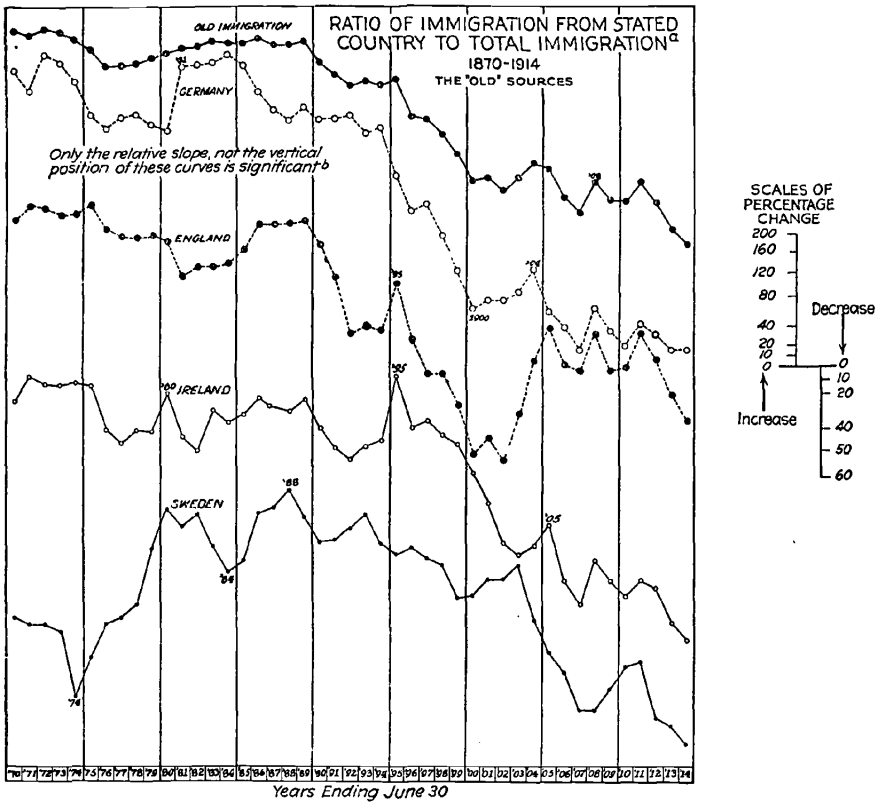
It is not, of course, to be inferred that year-to-year changes in the number of immigrants, even when similar in direction for many countries, are necessarily closely similar in degree. For example, taking the severe depression of 1908 as the basis of comparison, the sharpest decline among the countries which contributed one hundred thousand or more immigrants in the year ending June 30, 1907, is found in the immigration from Hungary and Italy, countries from which immigration had been rapidly increasing. In terms of percentage decline in the year ending June 30, 1908, from the number for the preceding year, the declines were as follows: United Kingdom, 18 per cent; Russia, 40; Austria, 43; Italy, 55; and Hungary, 56.

Proportion to Total Immigration.

Further indication of variances in the fluctuations of immigration from the several countries can be obtained from Charts 34 and 35, which portray the changes in the ratio of immigration from the

stated country to the total immigration for which the country of origin is known. In these charts a horizontal movement indicates that whatever the change in actual numbers, the immigration from the given country has not changed in proportion to the total. If the curve shows a drop, it means either that immigration from the

CHART 34



[a]Numerical data in Tables 4 and 45.

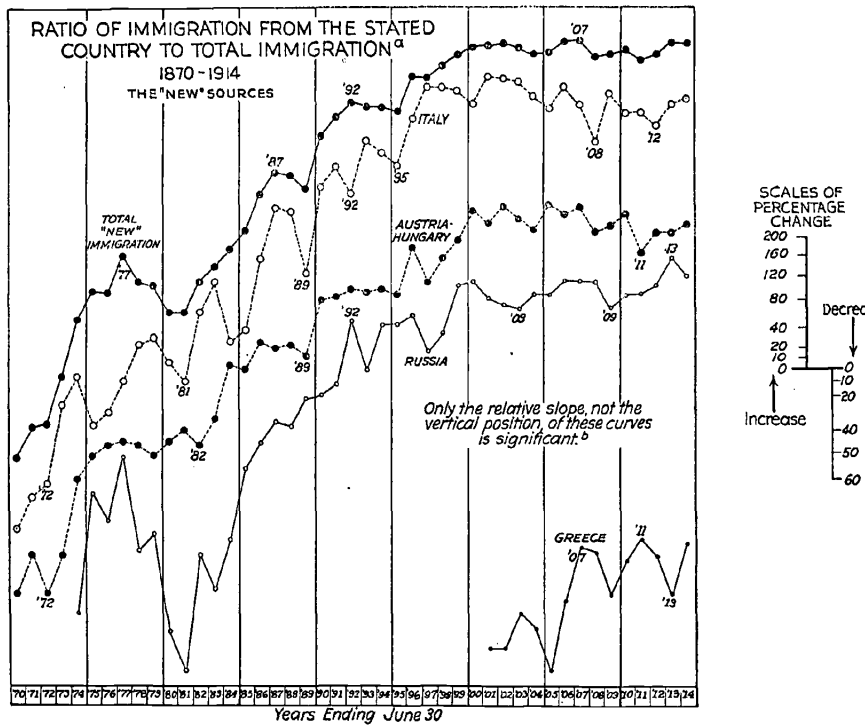
[b]For a more complete discussion of the method of constructing the above chart, see footnote (b) to Chart 27, in Chapter VII.

stated country has fallen off more sharply or has not risen as rapidly as that from other countries.

Chart 34 contains curves for the leading "old" sources of immigration. It will be noted that although drawn to the same scale, these curves have been vertically shifted for convenience in

plotting, so that it is only the shape of the curves and not their vertical distance from the base line which is significant. Though the movement from Sweden did not reach its peak until 1888, on the whole the proportion of total immigration contributed by each of these countries declined during the greater part of the period

CHART 35



[a]Numerical data in Tables 4 and 45.

[b]For more a complete discussion of the method of constructing the above chart, see footnote (b) to Chart 27, in Chapter VII.

since 1870. The probable causes of substantial deviations from the general trend for any one country, such as the sharp rise in the proportion from England in 1895, from Germany in 1904, or from Ireland in 1895 and 1905, will be considered later in the chapter, when analyzing the conditions peculiar to each of the leading emigrant countries.

Chart 35 is similar to 34, except that it presents the data for the leading "new" sources of immigration. For each of these countries,

TABLE 45.—RATIO OF IMMIGRATION FROM SELECTED COUNTRIES TO TOTAL IMMIGRATION[a]

Percentage Ratio of Immigration from Stated Country to the Total Immigration for which Country of Origin is Known.

YEAR ENDING JUNE 30	GERMANY	ENGLAND	IRELAND	SWEDEN	ITALY	AUSTRIA HUNGARY	RUSSIA	GREECE
1870	30.5	15.7	14.7	3.5	0.7	1.1	[b]	[b]
1871	25.7	17.6	17.9	3.3	0.9	1.5	[b]	[b]
1872	34.9	17.2	17.0	3.3	1.0	1.1	[b]	[b]
1873	32.6	16.3	16.8	3.1	1.9	1.5	[b]	[b]
1874	27.9	16.3	17.1	1.8	2.4	2.8	1.3	[b]
1875	21.0	17.6	16.7	2.5	1.6	3.4	3.5	[b]
1876	18.8	14.3	11.5	3.3	1.8	3.7	2.8	[b]
1877	20.7	13.5	10.3	3.5	2.3	3.8	4.7	[b]
1878	21.2	13.3	11.5	3.9	3.1	3.7	2.2	[b]
1879	19.5	13.6	11.3	6.2	3.3	3.4	2.5	[b]
1880	18.5	13.0	15.7	8.6	2.7	3.8	1.1	[b]
1881	31.4	9.7	10.8	7.4	2.3	4.2	0.8	[b]
1882	31.8	10.4	9.7	8.2	4.1	3.7	2.1	[b]
1883	32.3	10.5	13.5	6.3	5.3	4.6	1.6	[b]
1884	34.7	10.8	12.2	5.1	3.2	7.1	2.4	[b]
1885	31.5	12.0	13.1	5.6	3.5	6.9	4.3	[b]
1886	25.3	14.9	14.9	8.3	6.4	8.6	5.3	[b]
1887	21.8	14.9	14.0	8.7	9.7	8.2	6.3	[b]
1888	20.1	15.1	13.4	10.0	9.4	8.4	6.1	[b]
1889	22.4	15.4	14.8	8.0	5.7	7.7	7.6	[b]
1890	20.3	12.5	11.6	6.5	11.4	12.3	7.8	[b]
1891	20.3	9.6	9.9	6.6	13.6	12.7	8.5	[b]
1892	20.9	6.0	9.0	7.3	10.8	13.5	14.3	[b]
1893	18.1	6.4	10.0	8.2	16.6	13.2	9.7	[b]
1894	18.9	6.2	10.6	6.4	15.1	13.5	13.8	[b]
1895	12.4	9.1	17.9	5.9	13.7	12.9	13.9	[b]
1896	9.3	5.7	11.7	6.2	19.8	19.0	15.0	0.6
1897	9.8	4.3	12.3	5.7	25.7	14.3	11.2	[b]
1898	7.5	4.3	11.0	5.4	25.6	17.4	13.0	1.0
1899	5.6	3.3	10.2	4.1	24.9	20.1	19.6	0.7
1900	4.1	2.2	8.0	4.2	22.3	25.6	20.2	0.8
1901	4.4	2.5	6.3	4.8	27.9	23.2	17.5	1.2
1902	4.4	2.1	4.5	4.8	27.5	26.5	16.5	1.2
1903	4.7	3.1	4.1	5.4	26.9	24.0	15.9	1.6
1904	5.7	4.8	4.4	3.4	23.8	21.8	17.9	1.4
1905	4.0	6.3	5.2	2.6	21.6	26.9	18.0	1.0
1906	3.5	4.6	3.3	2.2	25.6	24.8	20.2	1.8
1907	2.9	4.4	2.7	1.6	22.2	26.3	20.1	2.8
1908	4.1	6.0	3.9	1.6	16.4	21.5	20.0	2.7
1909	3.4	4.4	3.3	1.9	24.4	22.6	16.0	1.9
1910	3.0	4.5	2.9	2.3	20.7	24.8	17.9	2.5
1911	3.6	6.0	3.3	2.4	20.8	18.1	18.1	3.0
1912	3.3	4.8	3.1	1.5	18.7	21.3	19.4	2.6
1913	2.9	3.6	2.3	1.4	22.2	21.3	24.3	1.9
1914	2.9	2.9	2.0	1.2	23.3	22.8	21.0	2.9

[a]Computed from the data in Table 44 and data concerning total immigration in the sources there cited.
[b]Less than 0.5 per cent.

the proportion of total immigration rises throughout the period under consideration. The movement from each country exhibits some sharp deviations from its general trend which challenge attention and which will be given more consideration when discussing the several countries separately. The immigration from Italy is particularly erratic, but there are many other peculiar movements, the explanation of which should be helpful in ascertaining the causes of changes in migration.

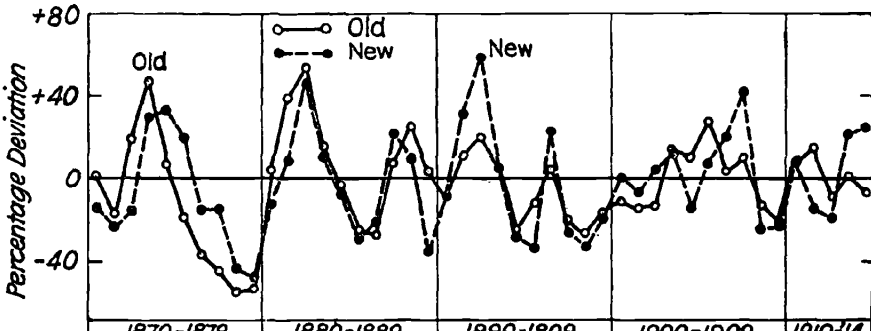
The "Old" and the "New" Immigration.

In comparing the fluctuations in the immigration from selected countries, we have found, on the whole, a general family resemblance in the curves for the countries of northern and western Europe, or the sources of the so-called "old" immigration, and also, a general similarity among the curves for the countries of southern and eastern Europe, or the sources of the so-called "new" immigration. Let us note the similarities and differences in the cyclical fluctuations of these two groups, as represented in Chart 36.

CHART 36

RELATIVE VIOLENCE OF CYCLICAL FLUCTUATIONS IN THE "OLD" AND "NEW" IMMIGRATION: 1870-1914.*

Percentage deviations from seven-year moving averages



*Numerical data in Table 46.

The immigration from the "old" sources and that from the "new" sources show substantially the same sequence of cyclical fluctuations in their annual totals from the seventies to the opening of the Great

War. But, in the later decades of the pre-war period, the new immigration is subject to the more violent fluctuations, increasing more in boom years and decreasing more in depression years than the old immigration. In addition to general differences in the degree of fluctuation, a few noticeable special differences in the direction

TABLE 46.—CYCLES IN THE "OLD" AND THE "NEW" IMMIGRATION: 1870-1914[a]

Percentage deviations from seven-year moving averages

YEAR ENDING JUNE 30	"OLD"[b]	"NEW"	YEAR ENDING JUNE 30	"OLD"	"NEW"
1870.....	+ 1.0	—14.5	1895....	—12.5	—33.5
1871.....	—16.8	—23.8	1896....	+ 4.5	+22.7
1872.....	+18.8	—15.0	1897....	—20.2	—26.4
1873.....	+46.6	+31.7	1898....	—26.9	—32.3
1874.....	+ 7.0	+33.0	1899....	—16.6	—19.9
1875.....	—19.4	+19.5	1900....	—11.6	0
1876.....	—37.6	—15.3	1901....	—14.6	— 6.8
1877.....	—44.5	—14.9	1902....	—14.2	+ 4.0
1878.....	—54.6	—43.8	1903....	+13.3	+11.8
1879.....	—53.5	—47.5	1904....	+10.1	—14.1
1880.....	+ 4.3	—12.5	1905....	+27.4	+ 7.1
1881.....	+39.1	+ 8.9	1906....	+ 3.9	+20.0
1882.....	+52.8	+45.6	1907....	+ 9.9	+41.7
1883.....	+15.6	+10.8	1908....	—13.3	—24.5
1884.....	— 3.6	— 8.0	1909....	—22.6	—23.5
1885.....	—24.9	—29.3	1910....	+ 8.7	+ 7.9
1886.....	—27.2	—21.3	1911....	+14.5	—15.3
1887.....	+ 7.9	+21.4	1912....	— 8.9[c]	—19.3[c]
1888.....	+24.6	+ 9.5	1913....	+ 0.9[c]	+21.4[c]
1889.....	+ 3.8	—35.1	1914....	— 7.7[c]	+24.0[c]
1890.....	— 9.9	— 8.6			
1891.....	+10.3	+31.4			
1892.....	+19.5	+57.7			
1893.....	+ 4.7	+ 5.6			
1894.....	—24.1	—28.8			

[a] Computed from data in reports of the U. S. Immigration Commission, *Statistical Review of Immigration, 1820-1910*, and in the reports of the Commissioner General of Immigration, U. S. Bureau of Immigration, for the years subsequent to 1910.

[b] See footnotes to Table 4 for countries included under "Old" and "New."

[c] In computing moving averages for these years, the average immigration in 1911 to 1914 was substituted for the actual immigration in 1915, 1916, and 1917, respectively.

and extent of change appear in these two immigration series. Thus, in the fiscal year ending June 30, 1906, the "old" immigration declined while the "new" rose. In 1911 the "old" rose slightly, the "new" fell. In 1913, the "new" rose much more rapidly than the "old," and continued to rise in 1914 while the "old" declined.

A comparison with the cycles in the production of pig iron in the United States indicates that in the discrepancies of 1906 and 1911 the "new" immigration conforms more closely than the "old" to the fluctuations in pig iron production. However, such industrial expansion as is indicated by pig iron production in 1912 and 1913 is scarcely sufficient to offer an obviously adequate explanation of the marked increase in the immigration from southern and eastern Europe in the year ending June 30, 1913.

Both immigration series show a moderately high degree of agreement with the cyclical fluctuations in pig iron when immigration for twelve months ending June 30th is compared with production in the year ending the previous December.[1]

Emigration to Selected Countries (Chart 37)

In analyzing the fluctuations in emigration by country of intended future residence of the emigrant, we have again selected for comparison the aggregate of the countries of northern and western Europe, frequently designated as the "old" sources of immigration; the aggregate of the countries of eastern and southern Europe, known as the "new" sources; and lastly, a few of the constituents of these two groups: namely, Italy, Austria-Hungary, Russia, Greece, the United Kingdom, Scandinavia, and Germany.

Emigration declined to all the selected countries in the year ending June 30, 1909, and continued to decline in 1910 for Scandinavia and eastern and southern Europe except Greece. It rose to all these countries in 1911 and 1912, except to Germany; fell in 1913 to all but Greece; and rose in 1914 to all but Greece and Italy.

By the year ending June 30, 1919, or at least by 1920, emigration to each of the countries under consideration exhibited a recovery from the small volume of the war period; but, under the influence of the restrictions on immigration imposed in 1921, which have tended to discourage emigration as well as immigration, there has been in recent years a distinct downward trend in emigration from the United States.

It is evident that there is a substantial similarity in the direction of the year-to-year changes in the number of emigrants to these several European countries. The most striking exception to the general movement is the heavy exodus to Greece in 1913, when the

[1]The Pearsonian coefficient of correlation is $+.63 \pm .06$ for the "old" immigration and pig iron and $+.68 \pm .06$ for the "new."

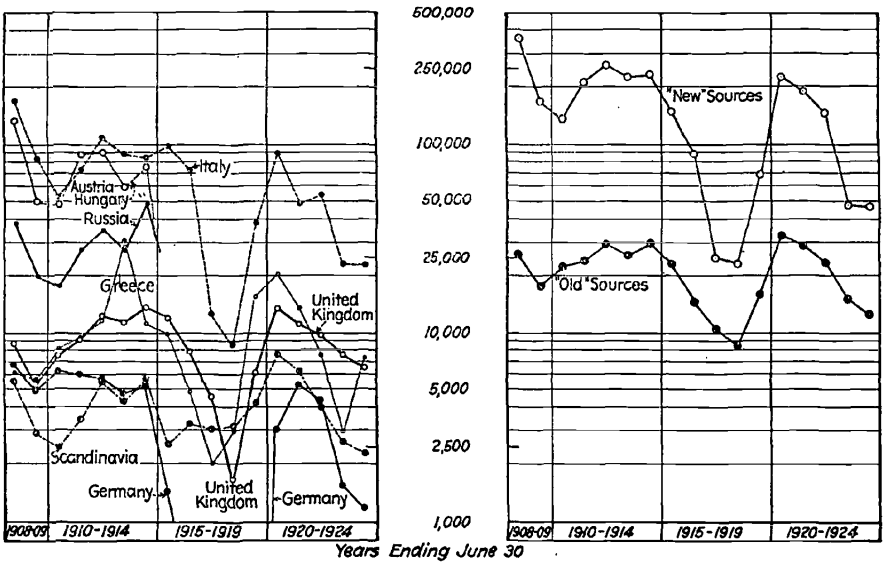
citizens of that country were hurrying home to answer the call to the colors for the Balkan Wars.

There are, however, differences in degree of fluctuation. The decline in emigration in the prosperous years 1909 and 1910, from the high point reached in the depression year 1908, is most marked

CHART 37

FLUCTUATIONS IN NUMBER OF EMIGRANTS FROM THE UNITED STATES TO SELECTED EUROPEAN COUNTRIES: 1908-1924.

Ratio Scale



[a]The annual statistics of emigration for the several countries are given in the *Annual Report of the Commissioner General of Immigration*, 1924, pp. 119-121, U. S. Bureau of Immigration. For list of countries classified as "old" and "new" sources, respectively, see footnotes to Table 4.

for the countries of southern and eastern Europe. (See the right hand section of Chart 37). The movement to Scandinavia in 1909 and 1910 is more akin, however, to that of Italy, Austria-Hungary, and Russia than it is to the relatively small decline in Germany and the United Kingdom. Of the several emigration movements represented in Chart 37, the least susceptibility to employment conditions in the United States is evidenced by the emigration to Germany.

Comparison of Selected Groups or Races.

In the reports of the U. S. Immigration Commission in 1910, the interpretation was advanced that the response to industrial conditions, particularly in the way of exodus, is most obvious among the immigrants from southern and eastern Europe, inasmuch as a larger proportion of these are "simply transients whose interest in the country is measured by the opportunity afforded for labor."[2] We have found some support for this conclusion in preceding paragraphs dealing with immigration from separate countries and with the groups contributing the so-called "old" and "new" immigration. Additional significant contrasts are evident when attention is turned to the statistics of immigration and emigration by race or people, which are available beginning in the year ending June 30, 1899.

Immigration.

In Table 47 are shown the changes, compared with the previous year, in the years ending June 30, 1904, 1908, 1911, and 1922, in each of which there occurred a decline in industrial ac-

TABLE 47.—DECLINE IN DEPRESSION YEARS OF IMMIGRATION OF SELECTED PEOPLES INTO THE UNITED STATES[a]

YEAR ENDING JUNE 30	PER CENT DECREASE (—) OR INCREASE (+) FROM PRECEDING YEAR			
	1904	1908	1911	1922[b]
All races	—5.2	—39.1	—15.6	—61.6
Slovak	—18.8	—61.5	—33.9	—82.9
South Italian	—18.8	—54.4	—17.1	—82.0
Polish	—17.7	—50.7	—44.3	—69.9
North Italian	— 2.0	—52.1	— 1.5	—77.8
German	+ 4.2	—21.4	— 6.9	+29.2
Irish	+ 4.8	— 5.9	+ 4.9	—56.0
Hebrew	+39.4	—30.7	+ 8.3	—55.0
English	+45.8	— 4.0	+ 7.0	—44.3

[a]Computed from statistics in *Annual Report of the Commissioner General of Immigration*, 1924, p. 114, U. S. Bureau of Immigration.
[b]Affected by quota law restrictions.

tivity accompanied by a decline in total immigration. Of the several leading races tabulated, the Polish, South Italian, and Slovak show the most consistent tendency to drop sharply in the given depression years. Of course, it is difficult to determine how

[2]United States Immigration Commission, *Abstract of Reports*, Vol. 1, p. 179.

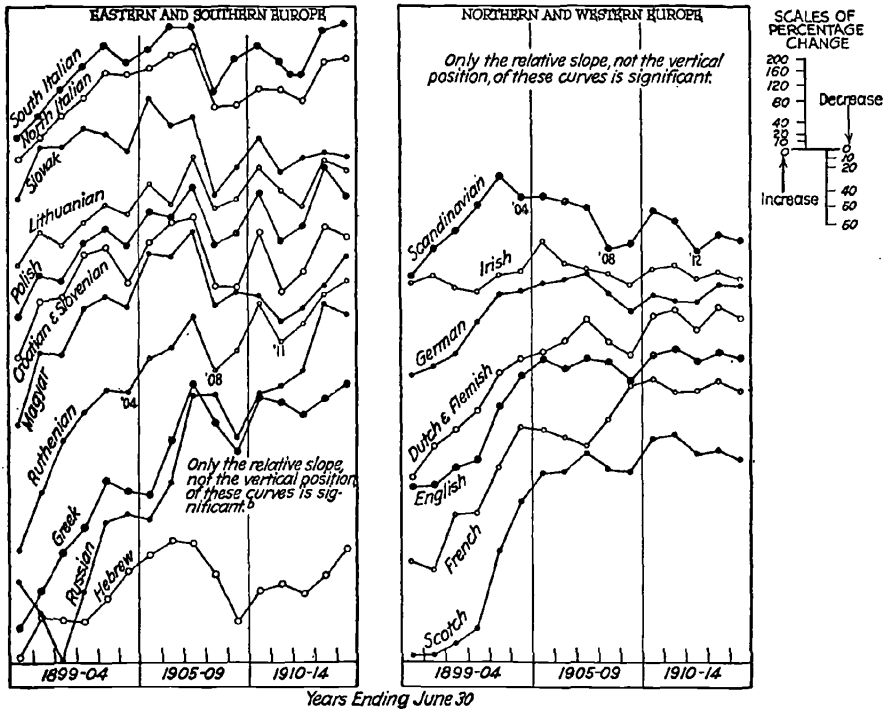
much of the decline in 1922 is due to depression conditions and how much to the restrictive legislation which went into effect in May, 1921.

The data in Table 47 furnish a first approximation of the relative degree to which the immigration of various races is checked by business depression. For example, the depression of 1908 evidently had a relatively slight effect on English and Irish immigration, but reduced the Polish and Italian immigration to less than half that of the preceding year.

Whether these differences are merely peculiar to the particular depression years selected or are characteristic of general tendencies may be determined somewhat more completely by examination of Chart 38, which shows the movement of the immigration of selected

CHART 38

FLUCTUATIONS IN IMMIGRATION, BY RACE: 1899-1914.[a]



[a] For the numerical data from which these curves were plotted, see the *Annual Report of the Commissioner General of Immigration*, 1924, pp. 113-114.

[b] For a more complete discussion of the method of constructing the above chart, see footnote (b) to Chart 27, in Chapter VII.

races over the period from 1899 to 1914 (years ending June 30).

The left-hand section of Chart 38 portrays the fluctuations in the annual totals of immigration for the leading races of eastern and southern Europe; the right-hand section, for the races of northern and western Europe. The relative percentage decline of two series in any selected year may be approximated by comparing the vertical changes in the corresponding curves with the aid of the scales of percentage change to the right of the chart.

Of these two groups, the restraining effect of the depression conditions of 1904, 1908, and 1911, is more evident in the immigration of the races of eastern and southern Europe. There are exceptions, of course, to this generalization if attention is given to the separate races. For example, the immigration of North Italians and of Greeks declined but slightly in 1904 and 1911, and the immigration of Russians and Hebrews not at all.

Every race shows a decline in 1908 but the French, which comes largely from Canada rather than from Europe, and the Russian, which declined sharply in 1909. In 1913 the immigration of every one of the selected races increased, this increase being particularly marked for the Russian, Polish, Lithuanian, Croatian, and both the North and South Italian.

Emigration.

The study of emigration by races, although it does not add greatly to the results obtained by the study of immigration by races, or to the study by countries, which appear earlier in this chapter, does provide some additional significant contrasts in a few cases where an important racial group forms but a fraction of the total emigration of a country or, on the other hand, is an important element in that of two or more countries.

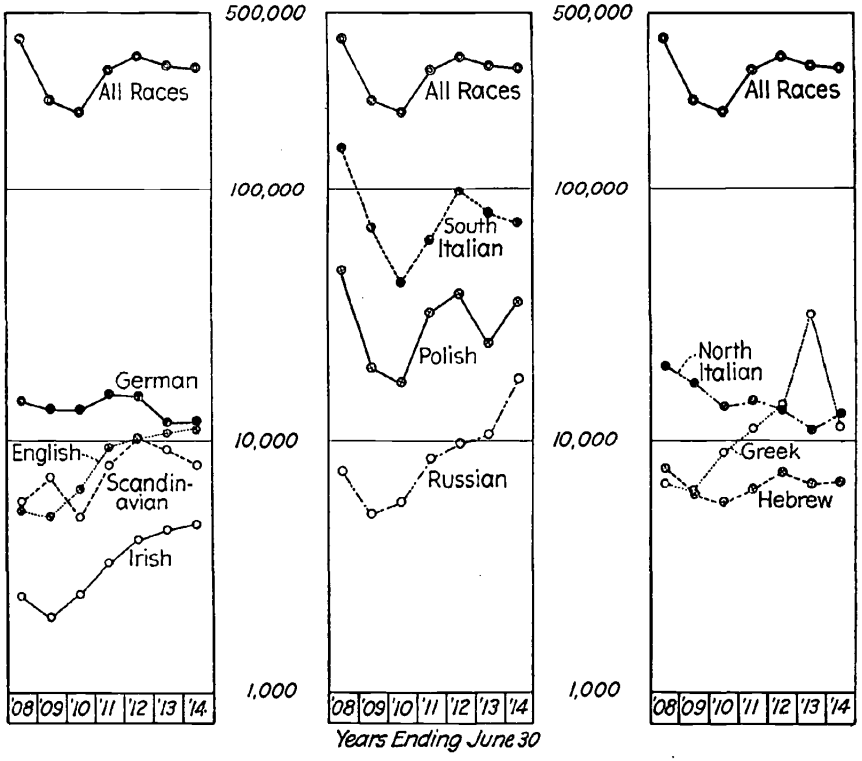
In the pre-war period, when economic forces had relatively free play so far as their effect on migration is concerned, the most obvious response to industrial conditions in the United States is shown by the group in the central section of Chart 39—Russian, Polish, and South Italian. Particularly is the decline in 1909 and 1910 relatively pronounced for these races. On the other hand, the emigration of the Hebrew, North Italian, and German races affords relatively little susceptibility to the ups and downs in industrial conditions in the United States.

CHART 39

EMIGRATION BY RACE

Fluctuations in the Number of Emigrants of Selected Races in the Pre-war Period: 1908-1914.

Ratio Scale



•For the numerical data from which the above chart was plotted, see the 1924 *Annual Report of the Commissioner General of Immigration*, p. 118.

THE INTERNATIONAL COMPARISON OF INDUSTRIAL CYCLES

Significance.

It is obviously pertinent to our problem to inquire into the extent to which business cycles are internationally concurrent. If, for example, the crest of prosperity is reached simultaneously in Germany and the United States, and if the high tide of immigration from Germany coincides closely with the peak of prosperity, then

it would seem reasonable to assume, so far as the choice of a particular time of departure is concerned, that the immigrant is attracted by unusually promising opportunities, rather than driven by the bitter necessity of seeking an adequate livelihood elsewhere. Conversely, if a relatively large movement of immigrants coincides with depression conditions in both the country from which they come and the country to which they go, then migration must be looked upon as a refuge of despair rather than as a voyage of hope—in such case the immigrant is to be considered as moving, not because he sees a clear opportunity to better a tenable position at home, but because conditions are so bad there that at the worst he feels he has little or nothing to lose. In any event, if the cycles are substantially concurrent in the countries concerned, migration can scarcely be considered as a means of international adjustment of cyclical unemployment; for in such case either it withdraws workers from the home country when employment is at a maximum or it floods an already depressed labor market in the country of immigration.

On the other hand, if there is a substantial lack of uniformity in the cyclical movements in the United States and European countries, then it is entirely possible that large immigration may be equally the result of depression at home acting as an expelling force and prosperity in the United States as an attracting force. Under such conditions migration might have a distinctly beneficial effect, ameliorating distress in Europe and meeting an industrial demand in the United States. Whether the easy satisfaction of an industrial demand for more workers is fundamentally beneficial and conducive to a sound development of industry is a pertinent question, the consideration of which we shall keep in abeyance for the present.

Before enlarging further upon the hypothetical possibilities, let us endeavor to discover the degree to which cyclical movements in industry do synchronize in the several important countries.

Material Used in International Comparisons.

There have been several detailed comparative studies of cycles in the more important industrial countries, the most significant for our purposes being various studies on British economic conditions, consideration of which is deferred to the subsequent section of this chapter dealing with the United Kingdom, and also a monograph by Professor Alvin H. Hansen, based upon monthly data for the period from 1902 to 1908, and dealing with cycles in the United

States, Great Britain, and Germany.[3] Professor Hansen divides his series into three groups: the Investment, Industrial, and Banking Groups, respectively. Of these, the Industrial Group is most pertinent to a study of migration. For the United States the Industrial Group is constituted of wholesale commodity prices, pig iron production, railroad gross earnings, imports, and immigration; for Germany, of wholesale prices and pig iron production; and for Great Britain, of imports and exports.

After careful analysis of these three composites, Professor Hansen comes to the conclusion that "the cyclical movements are quite closely concurrent," that is, there is a general tendency for the periods of prosperity to coincide in these countries and likewise for the depression troughs to be reached about the same time.

Our own analysis of comparative economic conditions in this and other countries is based chiefly upon certain statistical indices of economic activities, to be described presently, and upon portions of descriptive annals of industrial and agricultural conditions prepared by Dr. Willard Thorp, of the research staff of the National Bureau of Economic Research.

Composite Indices of Economic Activity.

To facilitate the international comparison of business cycles, we have utilized composite indices of economic activity in the respective countries. For the United States we made use of a composite index prepared by Professor W. F. Ogburn and Dorothy S. Thomas, for the years from 1870 to 1920, using nine economic series: namely, wholesale prices (1870-1915), commercial failures (1870-1920), bituminous coal production (1870-1920), pig iron production (1870-1920), railroad freight ton mileage (1882-1920), bank clearings outside New York City (1881-1915), employment in Massachusetts (1889-1920), railroad mileage constructed (1870-1888), and imports (1870-1888).[4] In constructing this index a mathematical trend curve was fitted to each series, the percentage deviations therefrom computed, and the results expressed as cycles, in units of the typical or standard deviation. Then the cycles thus obtained for each separate series were averaged to obtain the composite index.

For the United Kingdom, Germany, and Italy, we have com-

[3] Alvin Harvey Hansen, *Cycles of Prosperity and Depression in the United States, Great Britain and Germany—A study of Monthly Data 1902-1908*, University of Wisconsin Studies in the Social Sciences and History, Number 5.

[4] "The Influence of the Business Cycle on Certain Social Conditions," *Quarterly Publication of the American Statistical Association*, September, 1922, p. 327.

puted composite indices of cyclical fluctuations in economic conditions by methods substantially similar to those used in the computation of the index for the United States just described. In choosing the constituent series for these "industrial composites," as we shall designate them, we have selected series which are representative of important factors in the economic activities of the given country, which show at least a fair degree of homogeneity in their cyclical fluctuations, and lastly, which are available, with minor exceptions, over the entire period from 1870 to 1913.

The five series used for the United Kingdom are: wholesale prices, the value of exports, the tonnage of coal and of pig iron produced, and the per cent of unemployment among trade union members. For each series the cyclical fluctuations were computed by finding the percentage deviations from a seven-year moving average, smoothed to eliminate minor irregularities and to extend the average at the ends of the period. The results were then expressed in multiples of the typical or standard deviation for the respective series, and an unweighted arithmetic average of these five series was computed to obtain the composite index. Inasmuch as the price, export, and production series will ordinarily have positive values when unemployment is low and negative values when unemployment is high, the cycles of the unemployment series were reversed in sign when combining them with the other series to form the composite, so that, for example, in a period of large unemployment the sign of the unemployment index is negative.

The series used for the industrial composite for Germany are wholesale prices, the value of exports, the production of anthracite coal (*Steinkohlen*), and the production of pig iron. The methods of computation were similar to those used in preparing the composite index for the United Kingdom.

The satisfactory data available for analyzing cyclical fluctuations of the economic conditions in Italy are relatively scant. The only series used in constructing the composite are the value of imports and the value of exports, hence this index may appropriately be designated as an index of Italian foreign trade. Inasmuch as the great bulk of coal used in Italian industries is imported and a large portion of some of the more important agricultural products, such as wine and olive oil, are exported, the index of foreign trade is probably a fairly good index of economic conditions in Italy, but it is obviously not as reliable as the composite indices for the United States, the United Kingdom, and Germany.

Certain limitations of the method used in constructing these composite indices will, of course, be recognized. For one thing, they may convey an exaggerated impression of the homogeneity of cyclical fluctuations in the given country. The averaging of several series obscures differences which may not be altogether unimportant in their effects on migration tendencies. Furthermore, the use of moving averages in estimating the trend, in some instances, such as toward the end of a depression period which is followed by a rapid recovery, results in extending the computed depression period beyond the time when in absolute terms the several economic phenomena are beginning to show signs of recovery. For example, in 1879, the production of pig iron in Germany was 2,227,000 tons, as compared with only 2,148,000 in 1878, but because this increase is less than the computed increment to the trend line from 1878 to 1879, the movement in the cycle curve from 1878 to 1879 appears as a decline for pig iron.

This tendency may account for occasional discrepancies between the evidence presented by the cycle curve and the descriptive accounts of variations in business conditions. Inasmuch as the cycle curves for migration and the industrial composites are computed by the same method, occasional minor discrepancies between interpretations which rest on the unadjusted statistics and those based upon the cycle curves do not necessarily affect the validity of comparisons between the cycle curves.

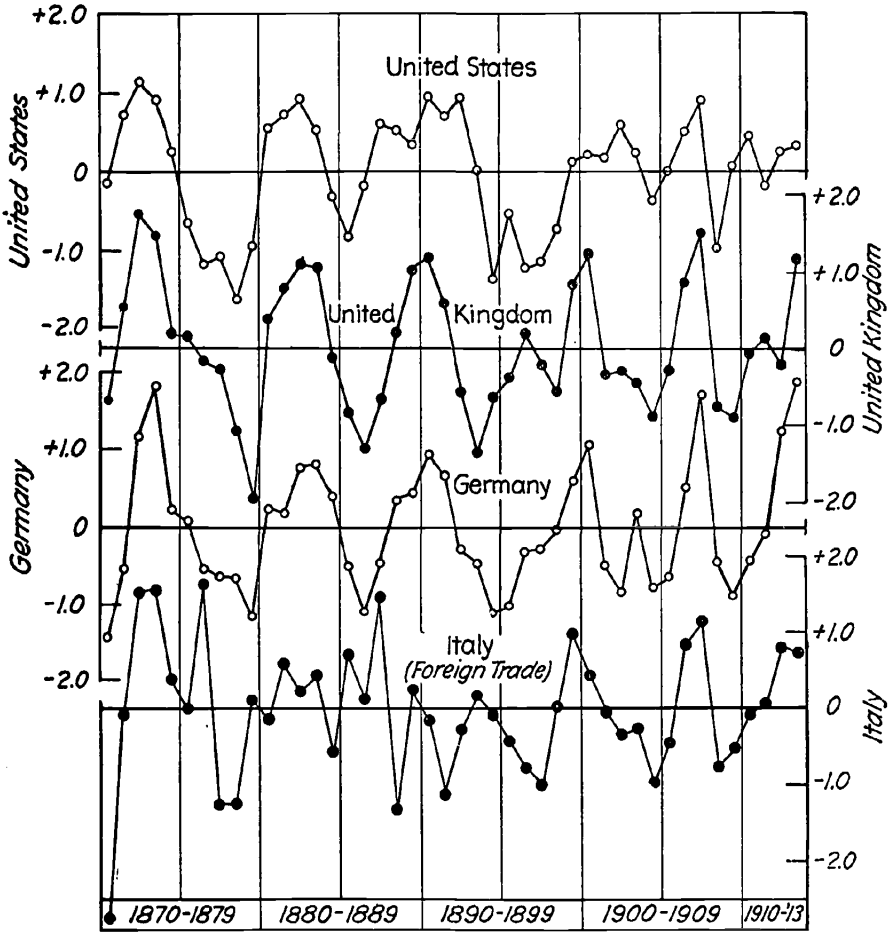
International Similarities in Business Cycles (Chart 40)

A comparison of the cycles of economic conditions in the United States, the United Kingdom, Germany, and Italy reveals that the fluctuations in the first three countries show marked similarities, although the agreement is by no means complete or invariable. In each of these three countries there was a boom in the early seventies followed by a decline in the middle part of the decade which continued well toward the end. Likewise, each experienced a boom in the early eighties, a decline near the middle of the decade, and a recovery in the late eighties or in the first years of the following decade, then a depression in the middle nineties, and a recovery again at the turn of the century. In each, a depression appears in 1904, a marked rise culminating in 1907, and a sharp decline in 1908, followed in a year or two by the beginning of a recovery which, during the remainder of the period prior to 1914, is not broken in any of the three countries by a reaction as severe as that of 1908.

CHART 40

INTERNATIONAL COMPARISONS OF CYCLES IN INDICES OF ECONOMIC CONDITIONS: 1870-1913.

Percentage deviations from seven-year smoothed moving averages, expressed as multiples of their standard deviations



•Numerical data in Table 48, except for the United States index, which is plotted from computations made by W. F. Ogburn and Dorothy S. Thomas, published in the *Journal of the American Statistical Association*, September, 1922, p. 327.

TABLE 48—CYCLES IN ECONOMIC CONDITIONS AND IN IMMIGRATION TO THE UNITED STATES: 1870-1913*

Percentage deviations from smoothed seven-year moving averages, expressed in multiples of their standard deviations

YEAR	INDUSTRIAL COMPOSITES			EMIGRATION TO THE UNITED STATES		
	UNITED KINGDOM	GERMANY	ITALY	UNITED KINGDOM	GERMANY	ITALY
	A	B	C	D	E	F
1870	—0.67	—1.44	—2.72	+0.33	.....	—0.69
1871	+0.55	—0.53	—0.07	+0.30	—0.24	—0.69
1872	+1.75	+1.18	+1.56	+0.91	+1.74	+2.40
1873	+1.48	+1.81	+1.58	+1.81	+1.32	+2.29
1874	+0.20	+0.22	+0.40	+0.16	—0.76	+0.74
1875	+0.17	+0.08	0	—0.91	—1.35	—1.06
1876	—0.17	—0.53	+1.66	—2.09	—1.59	—1.46
1877	—0.26	—0.63	—1.24	—2.67	—1.89	—1.46
1878	—1.06	—0.66	—1.22	—2.41	—1.89	—1.20
1879	—1.93	—1.16	+0.12	—0.94	—1.81	—0.69
1880	+0.39	+0.23	—0.12	+1.60	—0.03	—0.32
1881	+0.80	+0.18	+0.61	+1.19	+2.17	+0.53
1882	+1.11	+0.77	+0.23	+0.88	+1.55	+1.41
1883	+1.08	+0.81	+0.45	+0.87	+0.80	+0.86
1884	—0.11	+0.40	—0.56	—0.52	+0.33	—1.30
1885	—0.82	—0.50	+0.72	—1.13	—0.50	—1.40
1886	—1.29	—1.10	+0.14	—0.65	—1.05	—0.24
1887	—0.66	—0.47	+1.48	+0.97	—0.40	+0.71
1888	+0.20	+0.34	—1.30	+0.84	—0.27	+0.44
1889	+1.02	+0.44	+0.26	+0.03	—0.37	—1.01
1890	+1.20	+0.93	—0.14	—0.37	+0.04	+0.77
1891	+0.60	+0.68	—1.11	+0.09	+1.21	+0.85
1892	—0.56	—0.28	—0.26	+0.24	+1.63	+0.21
1893	—1.34	—0.48	+0.18	+0.63	+0.69	+0.56
1894	—0.63	—1.12	—0.08	—0.92	—1.02	—1.02
1895	—0.38	—1.02	—0.41	+0.65	—0.89	—0.86
1896	+0.20	—0.31	—0.78	—0.34	—0.72	—0.03
1897	—0.21	—0.28	—1.00	—0.83	—1.12	—0.66
1898	—0.56	—0.02	+0.02	—0.98	—1.09	—0.53
1899	+0.85	+0.60	+0.98	—0.21	—0.85	—0.56
1900	+1.25	+1.05	+0.44	+0.16	—0.79	—0.25
1901	—0.33	—0.49	—0.04	—0.17	—0.72	—0.13
1902	—0.29	—0.84	—0.34	—0.29	+0.35	+0.54
1903	—0.44	+0.17	—0.26	+0.08	+0.85	+0.78
1904	—0.88	—0.78	—0.98	+0.83	+0.01	—0.56
1905	—0.29	—0.64	—0.44	—0.34	+0.02	+0.95
1906	+0.87	+0.51	+0.84	+0.61	+0.48	+1.19
1907	+1.51	+1.71	+1.14	+1.71	+0.73	+0.89
1908	—0.76	—0.45	—0.77	—1.40	—0.68	—2.16
1909	—0.89	—0.88	—0.52	—0.79	—0.32	+0.01
1910	—0.06	—0.42	—0.08	+0.33	+0.25	—0.01
1911	+0.13	—0.08	+0.06	—0.06	—0.12	—0.88
1912	—0.21	+1.24	+0.80	—0.26	—0.74	—0.29
1913	+1.18	+1.88	+0.74	+0.24	+0.45	+1.16

*Sources:

A. *United Kingdom Industrial Composite.* Computed from: (1) wholesale prices of "total materials" (Statist); (2) the value of exports of British and Irish produce; (3) the production of coal; (4) the production of pig iron from British and foreign ores; and (5) the per cent unemployed in trade unions (signs reversed).

B. *Germany Industrial Composite.* Computed from: (1) wholesale prices, according to series published by Otto Schmitz, in *Bewegungen der Warenpreise*; (2) production of pig iron; (3) production of anthracite coal (Steinkohlen); and (4) the value of exports.

C. *Italy Industrial Composite.* Computed from the value (1) of imports and (2) of exports.

D. Great Britain, Commercial Labour and Statistical Department, *Emigration and Immigration—Copy of Statistical Tables relating to Emigration and Immigration from and into the United Kingdom*, 1892, and 1899 to 1909. These statistics pertain to the emigration of persons of British and Irish origin.

E. Kaiserliches Statistisches Amt, *Vierteljahreshefte zur Statistik des Deutschen Reichs.*

F. Computed from quarterly data of immigration from Italy to the United States, 1870 to June, 1888, and monthly data from July, 1888, to 1913 inclusive. (Table 49, footnote "a").

The index for Italy conforms reasonably well to the above described general tendencies, with the exception that the decline in the seventies is interrupted by a sharp recovery in 1876, and the movement of the Italian index through the eighties and the early nineties conflicts in some years with the direction of movement of the indices for the United States, Great Britain, and Germany, and is on the whole more erratic. Whether these differences are chiefly due to significant peculiarities in the economic conditions of Italy or are merely the result of the less adequate basis for the Italian index, may be open to question. Since the late nineties, the index for Italy also conforms approximately to the movements which have been mentioned as common to the other three.

The emphasis in the above paragraphs on similarities in the major swings of business conditions in the United States, Great Britain and Germany, should not be interpreted as implying that there are not many minor differences. To illustrate, in the eighties the low tide of activity is reached in the United States in 1885 but not until 1886 in Great Britain and Germany; in 1892 a rise is evidenced in the United States, while activity is declining in Germany and Great Britain; the decline of 1896 is peculiar to the United States; the reaction in 1901 is slighter in the United States than in the other two countries; in 1902, depression is deepening in Germany while a considerable improvement is shown in the United States; and in 1911, a mild depression is evidenced in the United States but not in Germany or Great Britain. More consideration will be given to these differences in subsequent paragraphs when making a comparison of economic conditions and emigration from each country separately considered. On the whole, however, the degree of similarity illustrated in Chart 40 indicates that inasmuch as the major swings in immigration to the United States coincide with the major cycles in industrial conditions in the United States, as has been pointed out in previous chapters, it follows that the upward swings in the cycles of emigration to the United States, must, in general, occur in periods of relative prosperity in the European countries of emigration. It remains to test this tentative conclusion by closer examination of the fluctuations in migration from the several important countries.

Selected Countries.

In the preceding pages we have noted the outstanding differences in the flow of migration from various countries to the United States

and the extent to which there are similarities in the business cycles of leading industrial countries. Let us now examine somewhat more closely the economic conditions in a few of the leading countries of emigration and the concurrent state of prosperity or depression in the United States, with the object of ascertaining, if possible, what influences are primarily responsible for cyclical fluctuations in migration. The countries to which chief attention is given are the United Kingdom, Germany, and Italy. Also the fluctuations in emigration to the United States from Russia, Sweden, and Austria-Hungary are briefly analyzed.

IMMIGRATION FROM THE UNITED KINGDOM

During the early decades of the nineteenth century the United Kingdom contributed the major part of the immigrant stream to the United States; and, with the enactment of the quota laws of 1921 and 1924, which allotted relatively large quotas to the northern European countries, British immigration has again been brought into a position of relatively large importance.[5]

Degree of Agreement between Business Cycles in the United States and the United Kingdom.

In several previous studies of business cycles, attention has been given to the extent to which business cycles move synchronously in Great Britain and the United States. Professor Alvin H. Hansen, in his study of cycles in industrial conditions in the years 1902 to 1908, by months, reached the conclusion that the cyclical movements in the United States and Great Britain are quite closely concurrent.[6] Also, Professor Warren M. Persons and his associates, in a study of British economic conditions, demonstrated that, with certain noteworthy differences, there was a marked similarity in business cycles in the United States and Great Britain in the years 1903 to 1914, but that the British index, however, frequently lagged after that for the United States;[7] and Miss Dorothy S. Thomas, in a recent study, finds, for the same period covered by our analysis (1870 to

[5] In this chapter the term "British" is applied to the entire United Kingdom, including Great Britain and Ireland, and, unless so specified, references to "Great Britain" do not necessarily include Ireland.

[6] Alvin Harvey Hansen, *Cycles of Prosperity and Depression in the United States, Great Britain and Germany—A Study of Monthly Data 1902-1908*, University of Wisconsin Studies in the Social Sciences and History, Number 5.

[7] *The Review of Economic Statistics, Supplement*, June, 1922, "An Index of British Economic Conditions, 1903-1914," by W. M. Persons, N. J. Silberling, and W. A. Berridge.

1913), a high degree of agreement between fluctuations in economic conditions in these two countries.[8]

The reader may form his own conclusions concerning the degree of this similarity by examining the composite indices for the United States and Great Britain in Chart 40 or 41. The general similarity is fairly obvious, but so also are certain differences. The British turn in 1879, and also in 1886, is a year later than the corresponding movement in the United States; a decline in 1888 and 1889 does not appear in the index for the United Kingdom as it does in the composite index for the United States; 1892 is a year of improvement in the United States but not in Great Britain; the index for the latter country recovered in 1894 but that for the United States continued to decline; the decline of 1896 in this country has no equivalent movement in Great Britain until 1897 and continues there in 1898; the boom in the early part of the century came in 1900 in Great Britain and in 1902 in the United States; and the depression of 1908 continued in 1909 in Great Britain, but the latter country did not experience a depression in 1911.

Peculiarities in the Immigration from the United Kingdom.

We have a graphic representation of the changes in the movement of immigration from England and Ireland in Chart 32, page 156, covering the years ending June 30, 1880 to 1914. In terms of the conditions shown by our industrial composite for the United Kingdom, in the boom years of the early eighties, immigration was high, particularly from England in 1882 and Ireland in 1883. With the industrial decline to 1885 and 1886, immigration likewise declined. The next peak in immigration appears in 1888, simultaneously with a period of business revival in Great Britain. The next ten years are marked by a decline in the number of immigrants from England and Ireland, varied only by a slight recovery in Irish immigration in 1891 and an accentuated decline for both countries in 1894, followed by a temporary recovery in 1895. If we allow for a few months lag, we find some movements which suggest that bad conditions in the United Kingdom diminish emigration, and some which indicate the contrary. The decline in 1894 follows the depression of 1893, the rise in 1895 follows the temporary revival in Great Britain in 1894, and the accentuated decline in the year ending June 30, 1909, accompanies depression conditions in Great Britain. But, on the other hand, the immigration boom, particularly

[8]Dorothy S. Thomas, *Social Aspects of the Business Cycle*, pp. 149-151.

from England, in 1903 to 1905, and in 1905 from Ireland also, accompanies a period of decline or depression in British industry.

At first inspection, all this appears somewhat confusing; for in some years an increase in immigration from these countries appears to coincide with good conditions; in others, with bad conditions.

As a second method of approach, we turn to Chart 34 on page 159. This chart shows the fluctuations in the ratio of immigration from the stated country to total immigration. The most striking movements in the English and Irish curves are the sharp decline in the year ending June 30, 1892, and the sharp increase in 1895 and again in 1904 and 1905. Evidently, if we consider only British conditions, we reach the conclusion that the hard times which existed there in the latter part of 1890, and in 1891 and 1892, materially checked emigration from the United Kingdom as compared with the movement from other countries; and that the marked increase in 1895 may be associated with the revival which occurred in Great Britain in 1894 and the spring of 1895. On the other hand, the rise in 1903, 1904, and 1905, which is relative as well as absolute, occurs in years which are marked by declining industrial activity in Great Britain.

It is evident from the above that even a comparison between conditions in Great Britain and fluctuations in the ratio between total immigration to the United States and that from England and Ireland does not lead us to a clear-cut conclusion concerning the relation between immigration and economic conditions in the home country.

We get a better indication of the causes of cyclical fluctuations in emigration from the United Kingdom if we compare this emigration movement with economic conditions in both the United States and Great Britain (Chart 41).

Emigration and Economic Conditions in the United States and the United Kingdom.

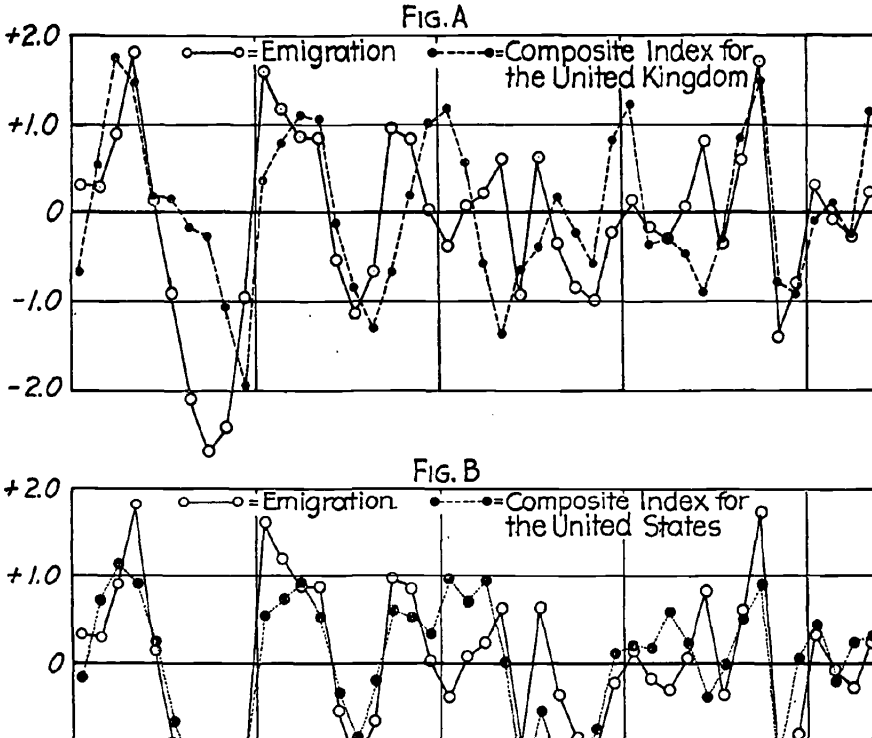
With the aid of Chart 41, we can make visual comparison of the relation between cycles in emigration from the United Kingdom to the United States and the concurrent economic conditions in these two countries. The emigration curves do not agree closely and consistently with economic conditions in either country; but there is a fair degree of agreement in major features. Good business conditions common to both countries are usually accompanied or closely followed by high emigration, and bad conditions by low

CHART 41

BUSINESS CONDITIONS AND EMIGRATION FROM THE UNITED KINGDOM: 1870-1913.

Cycles in Emigration to the United States Compared with Business Conditions in the United Kingdom (Fig. A) and the United States (Fig. B)

Deviations from seven-year smoothed moving averages, expressed as multiples of their standard deviations



•For numerical data see Table 48 and footnote to Chart 40.

emigration; but where conditions in the two countries are not similar, the emigration movement appears to agree somewhat better with the index for the United States than with that for the United Kingdom.

These instances where the migration movement differs from one business cycle curve but agrees with the other are of special interest. The beginning of recovery in emigration in the late seventies and in 1886 agrees best with the concurrent changes in the index for the United States. Also, in the years 1888 and 1889, and in 1894 and 1896, the emigration curve and the United States composite, but not the British composite, decline. On the other hand, the decline in the emigration movement in 1901 and 1902 can be explained more plausibly by reference to economic conditions in Great Britain than to those in the United States, for 1902 is a boom year in the latter country. The emigration boom in 1904 coincides with depression in both countries. The recovery in emigration in 1909, despite the continuance of depression in the United Kingdom, evidences the effect of industrial recovery in the United States.

The tentative conclusion upon the basis of the evidence presented in Chart 41 is, that the general movements in economic conditions in the United States and the United Kingdom are similar, and that prosperity in the two countries ordinarily means higher emigration from the United Kingdom to the United States; depression, lower emigration. When, as not infrequently happens, the cyclical changes in the United Kingdom come somewhat tardily as compared with the similar movements in the United States, the movement in emigration usually agrees more closely with the ups and downs of industry in the latter country. The emigration decline of 1902 and the boom of 1904 are not, however, consistent with this explanation.

It may be suggested that by allowing a lag of one or two years we may find a good correspondence between depression in Great Britain and emigration therefrom. But upon examination of the curves for such possible relations, we find that with a one year lag attributed to emigration there is no consistent agreement, either direct or inverse, between British business conditions and emigration. With a two-year lag there is a moderate degree of inverse correlation, that is, a tendency for poor business conditions in Great Britain to be followed two years later by increased emigration to the United States, and for good conditions to be followed by decreased emigration. However, for the period as a whole, this agreement is not as close as that found between concurrent conditions of prosperity

and high emigration, or depression and low emigration.[9] Furthermore, inasmuch as depression in the United Kingdom is ordinarily accompanied or preceded by depression in the United States, the assignment of such a two-year lag to the influence of British economic conditions upon British emigration would involve the rather implausible assumption that poor employment conditions in the United States stimulate emigration from the United Kingdom or that they act much more promptly upon British emigration than do conditions in the United Kingdom.

Quarterly Cycles of Employment in the United Kingdom and the United States.

The discussion in the preceding pages is based upon annual data. Quarterly statistics afford the basis for attention to some details which are not ascertainable from annual statistics. For some twenty-five years prior to the Great War, there are available quarterly or monthly statistics of immigration from Great Britain and Ireland to the United States, of unemployment among trade union members in the United Kingdom, and estimates of factory employment in the United States, the preparation of which is explained in Chapter III. For convenience in discussion, the signs of the unemployment series were reversed in plotting and the resulting curve in Chart 42 may be described as an "employment curve." Also, the curve for immigration to the United States from the United Kingdom will be designated herein as the "emigration curve."

[9]The Pearsonian coefficients of correlation between the cycles of emigration and industrial conditions afford some evidence in support of the conclusions reached by graphical analysis. They are: British emigration to the United States with British industrial composite, concurrent items, $+.421 \pm .08$; with emigration lagging one year, $+.06 \pm .10$; with emigration lagging two years, $-.26 \pm .08$; British emigration with the United States industrial composite, concurrent items, $+.56 \pm .07$; emigration lagging one year, $+.37 \pm .09$; two years, $+.03 \pm .10$.

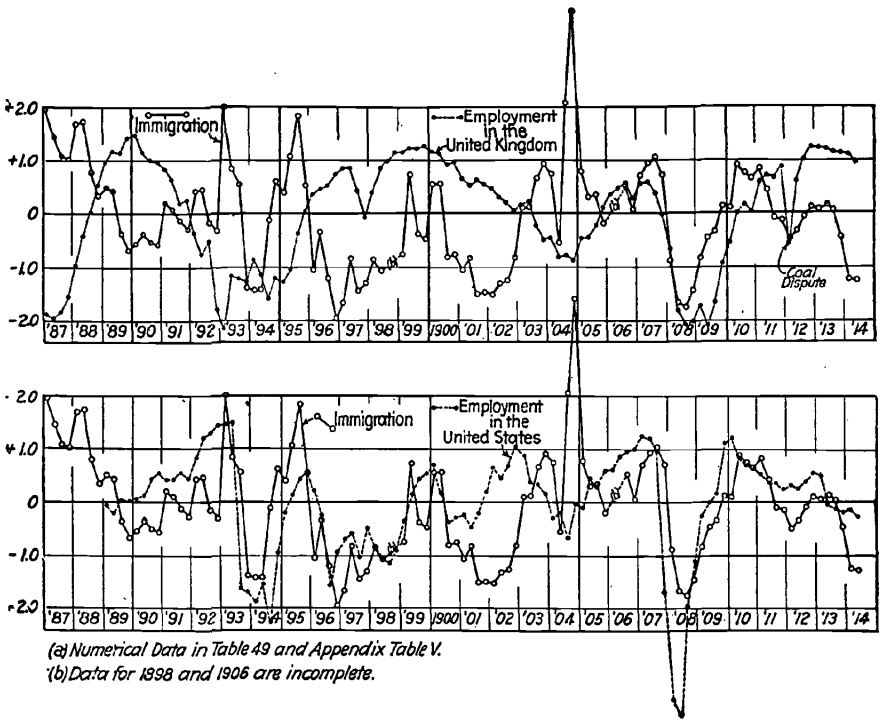
Dorothy S. Thomas, in *Social Aspects of the Business Cycle*, pp. 148-151, finds that for the period from 1862-1913 the coeficient of correlation between her index of British business cycles and total emigration from the United Kingdom "reaches a maximum of $+.48$ with synchronous items. For the first half of the period, 1862-91, the correlation is $+.63$ for synchronous items; but for the second half, 1892-1913, the positive coefficients are not significant and a maximum negative correlation of $-.40$ occurs with a lag of two years." This suggests the possibility that, in the second half of the period, conditions in Great Britain, allowing for a lag of two years, are the major factors determining fluctuations in emigration from the United Kingdom. However, upon examination of the relation between emigration from the United Kingdom to the United States and business conditions in the United States, she finds that even "for the second half of the period, 1892-1913, the maximum $+.52$ was again for synchronous items," and hence slightly greater than the maximum correlation with British conditions ($-.40$, with a lag of two years assigned to emigration). Thus, using somewhat different data and methods of computation from those used by us, she reaches substantially similar conclusions.

Through the first decade covered by this chart, the movement in emigration from the United Kingdom to the United States is frequently converse to the movement of employment in the United Kingdom. Thus from 1887 to 1889, inclusive, emigration is decreasing and employment increasing; in the next three years, em-

CHART 42

QUARTERLY CYCLES OF EMPLOYMENT CONDITIONS AND OF IMMIGRATION FROM THE UNITED KINGDOM TO THE UNITED STATES[a]

Unit = one standard deviation



(a) Numerical Data in Table 49 and Appendix Table V.
(b) Data for 1898 and 1906 are incomplete.

ployment declines and emigration increases. This inverse relationship is somewhat less obvious in the next succeeding years, although in the second half of 1904 an exceptionally high peak in the emigration movement from the United Kingdom coincides with the low point in the employment cycle. The sharp decline in the depression of 1908 is quite similar in the two series, and, aside from a tendency

in the upturn in 1909 for employment in the United Kingdom to lag after the corresponding change in immigration, the two movements agree fairly well in the recovery period. Except for a decline in one quarter of 1912, due largely to a coal strike, the employment

TABLE 49.—QUARTERLY CYCLES IN EMPLOYMENT CONDITIONS IN THE UNITED KINGDOM AND IN IMMIGRATION THEREFROM TO THE UNITED STATES: 1887-1914

Corrected for seasonal variation. Unit = one standard deviation.

YEAR	IMMIGRATION FROM THE UNITED KINGDOM TO THE UNITED STATES[a]				EMPLOYMENT IN THE UNITED KINGDOM[b]			
	1ST Q	2D Q	3D Q	4TH Q	1ST Q	2D Q	3D Q	4TH Q
1887	+1.98	+1.45	+1.09	+1.01	−1.88	−1.95	−1.84	−1.52
1888	+1.68	+1.71	+0.79	+0.32	−0.96	−0.41	+0.02	+0.52
1889	+0.50	+0.43	−0.37	−0.69	+0.94	+1.16	+1.14	+1.42
1890	−0.56	−0.37	−0.51	−0.57	+1.48	+1.15	+1.00	+0.96
1891	+0.21	+0.10	−0.11	−0.27	+0.83	+0.65	+0.20	+0.25
1892	+0.44	+0.46	−0.15	−0.31	−0.36	−0.75	−0.51	−1.77
1893	+1.99	+0.82	+0.56	−1.39	−2.16	−1.17	−1.21	−1.26
1894	−1.41	−1.41	−0.12	+0.61	−0.86	−1.14	−1.58	−1.21
1895	+0.40	+1.06	+1.83	+0.53	−1.28	−1.03	−0.36	+0.04
1896	−1.05	−0.34	−1.20	−1.96	+0.37	+0.46	+0.52	+0.74
1897	−1.66	−0.83	−1.43	−1.30	+0.84	+0.85	+0.44	−0.09
1898	−0.85	−1.07	[c]	[c]	+0.39	+0.84	+0.98	+1.14
1899	−0.76	+0.72	−0.38	−0.47	+1.14	+1.21	+1.21	+1.27
1900	+0.55	+0.56	−0.81	−0.75	+1.15	+1.12	+0.91	+0.96
1901	−1.05	−0.82	−1.50	−1.47	+0.65	+0.52	+0.62	+0.55
1902	−1.51	−1.30	−1.25	−0.82	+0.47	+0.31	+0.20	+0.05
1903	+0.10	+0.12	+0.67	+0.93	+0.17	+0.23	−0.22	−0.49
1904	+0.75	−0.55	+2.08	+3.82	−0.46	−0.80	−0.77	−0.87
1905	+0.79	+0.31	+0.37	−0.17	−0.46	−0.43	−0.21	+0.12
1906	[c]	[c]	+0.53	+0.08	+0.37	+0.49	+0.57	+0.29
1907	+0.71	+0.96	+1.06	+0.72	+0.55	+0.60	+0.39	−0.01
1908	−0.89	−1.66	−1.73	−1.43	−0.64	−1.80	−2.06	−2.01
1909	−0.82	−0.45	−0.32	+0.14	−1.72	−2.08	−1.64	−0.92
1910	+0.11	+0.90	+0.77	+0.67	−0.53	+0.01	+0.18	+0.04
1911	+0.85	+0.45	−0.08	−0.12	+0.61	+0.71	+0.68	+0.88
1912	−0.48	−0.33	−0.07	+0.12	−0.54	+0.62	+1.03	+1.25
1913	+0.08	+0.17	+0.06	−0.42	+1.24	+1.22	+1.16	+1.14
1914	−1.22	−1.24	.....	.....	+1.12	+0.97	.....	.....

[a] Deviations from 28-quarter moving average, computed from quarterly and monthly data given in U. S. Bureau of Statistics, *Tables Showing Arrivals of Alien Passengers and Immigrants, 1820 to 1888*; the *Monthly Summary of Commerce and Finance*, for July, 1888, to December, 1905; and the publications of the U. S. Bureau of Immigration for the remainder of the period.

[b] Deviations from mean for the period, computed from percentages of trade union members unemployed (signs reversed), Great Britain Commercial, Labour and Statistical Department, *Abstract of Labor Statistics*, 1887-1912; Trade Board, *Labor Gazette*, 1912 to 1914.

[c] Data incomplete.

movement does not reflect the slump in immigration in the latter part of 1911 and the early part of 1912.

Let us see whether some of these peculiarities may not be explained by reference to the curve for employment in factories in the United States, given in the lower section of Chart 42, together with the curve for immigration from the United Kingdom to the United States.

Upon examination of the facts concerning employment conditions in the United States, we find that, as a rule, those years when rising emigration is concurrent with declining employment in the United Kingdom are also years when the employment conditions in the United Kingdom and in the United States are not similar. Thus, from 1887 to 1889,[10] industrial activity in the United States slackened while British employment rose; in 1890 to 1892, inclusive, factory employment conditions in the United States improved while British employment declined; in 1896, employment in the United States declined but in Great Britain rose; in 1902, the United States movement is upward but in Great Britain it is downward; in 1908 and 1909 the upward turn comes more quickly in the United States, and the depression of 1911 is more clearly defined in the United States movement.

In each of the periods just mentioned emigration from the United Kingdom tended to increase when employment conditions were improving in the United States and becoming less favorable in the United Kingdom; and similarly, emigration declined when employment conditions became less favorable in the United States and more favorable in Great Britain.

On the other hand, in those periods when employment is improving in both countries, emigration is, as a rule, also increasing; when employment in both countries is declining, emigration also diminishes. For example, see 1906 to 1909. Neither employment conditions in the United States nor in Great Britain afford an obvious explanation for the sharp boom in emigration in 1904.

To summarize, the flow of emigration from the United Kingdom to the United States agrees to a large extent with the course of employment in the latter country, whether the concurrent movement in employment in Great Britain is similar or dissimilar to that in the United States.

British Emigration to Countries other than the United States.

During the period from 1870 to 1913 there was a substantial volume of emigration from the United Kingdom to countries other

[10]See Charts 32, 34, and 41.

than the United States. A complete analysis of cyclical fluctuations in British emigration would, consequently, involve a thorough study of business cycles in all the countries to which large numbers of British emigrants are attracted. This is a task we have not undertaken. However, even without an examination of economic conditions in the countries of destination, we can profitably compare the fluctuations in emigration to these "other countries" and to the United States. If these two streams of emigration fluctuate in close accord, it would be reasonable to conclude that the cyclical changes in employment opportunity in the United States and other host countries are essentially similar, or, as an alternative explanation, that conditions in the country of emigration are the dominating factor. On the other hand, if marked differences appear in the fluctuations of emigration to the United States and to "other countries" some weight is added to the other evidence tending to show that conditions in the home country of the emigrant are not the predominant influence in determining when his departure takes place.

In fact, the cycles in emigration from the United Kingdom to countries other than the United States show many dissimilarities to the cycles of emigration to the United States, indicating that these two movements are not clearly dominated by conditions in the United Kingdom or they would evidence more similarity. On the whole, the cycles of "other emigration" agree less closely with business conditions in the United Kingdom than do the cycles of emigration to the United States.[11]

In a few instances the relation between these two emigration movements is not readily explained by conditions in the United States. For example, in 1902 a boom in the United States was accompanied by declining emigration to the United States and increasing emigration to other countries; and in 1904 depression in the United States was accompanied by increasing British emigration thereto and declining emigration to other countries. As a rule, in those years in which the direction of change in the business cycle curve in the United States is dissimilar to that in Great Britain, the cyclical fluctuations in emigration to the United States agree, in direction of movement, with the business cycle in the United

[11]This conclusion is based upon the analysis of graphs of the cycles in emigration and business conditions, not reproduced here, supplemented with mathematical computation of the Pearsonian coefficients of correlation, which are $+.22 \pm .10$ for concurrent items in "other emigration" and British business conditions, and $+.42 \pm .08$ for emigration to the United States and British conditions.

States, while such agreement is evidenced less frequently by emigration to the "other countries." This adds some evidence, though not in itself sufficient to be conclusive, to indicate that the tendency for emigration to the United States in these years to agree with conditions in the United States, rather than in the home country, is not merely accidental but directly caused by the industrial conditions in the United States. For example, in 1896 economic activity in the United Kingdom increased, but slumped in the United States, and British emigration to the United States, but not to other countries, declined. A similar situation existed in 1911. Also, in 1909 conditions improved in the United States more rapidly than in Great Britain, and British emigration to the United States increased, though emigration to other countries declined.

IMMIGRATION FROM GERMANY

Immigration from Germany to the United States has experienced two great booms, one following the revolutionary disturbances in 1848 and culminating in 1854, when the recorded number of immigrants from Germany was 215,009; and a second wave culminating in 1882, with a total of 250,630, representing almost 32 per cent of the total immigration into the United States in that year. Subsequent to 1882 the general trend of immigration from Germany has been downward; though from 1900 to 1904 there was an increase, and thereafter up to the beginning of the war period the annual movement decreased only slightly. (See Chart 32).

Proportion of Total Immigration (Chart 34).

In the seventies and eighties, immigration from Germany constituted, in most years, from twenty to thirty per cent or more of the total immigration to the United States; but in each year from 1900 to 1914, with the exception of 1904, it represented less than five per cent. This ratio to the total immigration declined during the depression of the seventies, rose sharply in 1881 and remained at this new high level for five years, then began a long decline, broken only by temporary recovery movements, notably in 1903 and 1904, 1908, and 1911.

Business Cycles in Germany and the United States.

Particularly in the first two decades after 1870, the fluctuations in economic conditions in the United States and Germany, as in-

dicated by the industrial composites previously described, show a substantial degree of similarity.[12] A tendency appears for the turns in the German curve to occur one year later than the corresponding changes in the United States composite. For example, the changes in direction which occurred in the United States composite in 1873, 1879, 1883, 1886, and 1909 are comparable with the changes in the German curve in 1874, 1880, 1884, 1887, and 1910, respectively. However, in the early nineties and again in the early part of the following decade, the decline toward depression becomes pronounced sooner in Germany than in the United States.

The German industrial composite exhibits some noteworthy differences from the United States composite. In 1892 economic activity diminished in Germany but increased in the United States; and in 1896, diminished in the United States but not in Germany. Conditions in Germany took a turn for the worse in 1901 and 1902 but improved in 1903; while industrial activity in the United States declined only slightly in 1901, improved in 1902 and declined in 1903. Again, in 1911 Germany experienced an industrial improvement while in the United States there was a mild depression, and the German boom in 1912 and 1913 was more pronounced than that in the United States. In both countries there was a decline in 1904, then a rise in 1907, and a decline in 1908.[13]

Emigration from Germany and Business Conditions.

In Chart 43 we have a comparison of the cycles of emigration from Germany, first (Fig. A) with business cycles in Germany, and, secondly, (Fig. B) with business cycles in the United States. Generally speaking, high emigration corresponds with the prosperity phase of the business cycle both in Germany and in the United States, and low emigration with depression in both countries.[14]

Where the movements are not concurrent, there is some evidence of a tendency for emigration to anticipate changes in conditions in Germany, as in the changes in emigration in 1873, 1882, and 1909; whereas changes in emigration are usually concurrent with cyclical

[12]See Chart 40, p. 174.

[13]The coefficient of correlation between the composites is $+.35 \pm .09$ if concurrent items are compared, or $+.31 \pm .09$ if a one-year lag is assigned to the industrial composite for Germany.

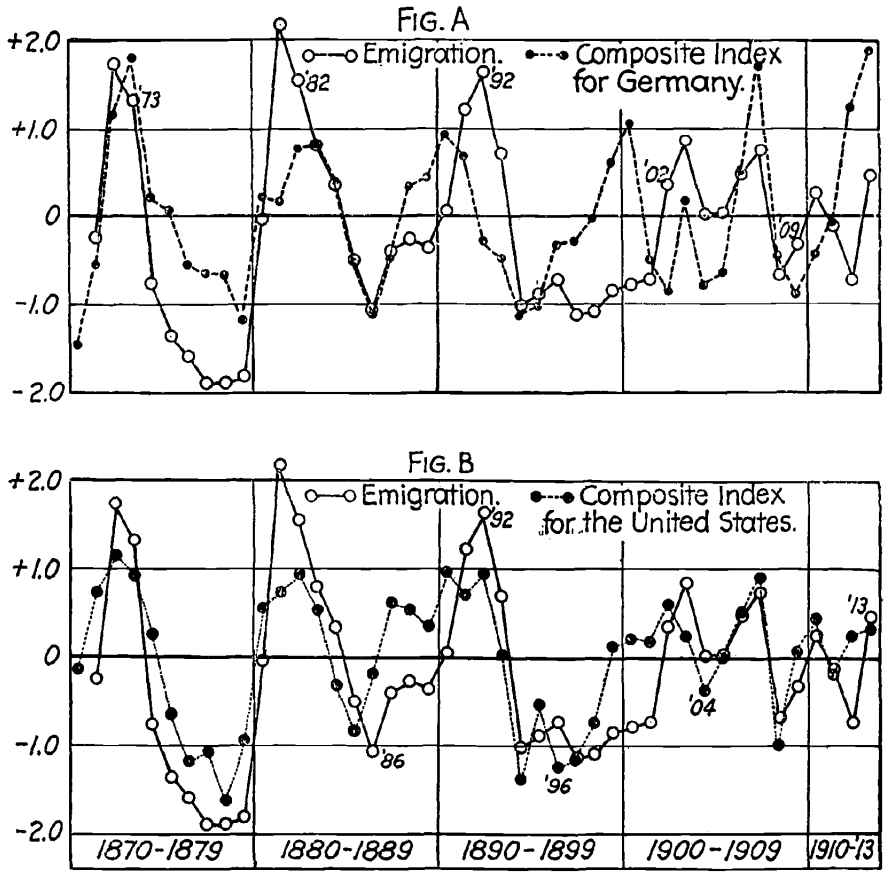
[14]The coefficients of correlation, for concurrent items, are $+.40 \pm .09$ for German industrial conditions and emigration from Germany to the United States, and $+.54 \pm .07$ for such emigration and industrial conditions in the United States. If a one-year lag is assigned to emigration, the coefficients are $+.17 \pm .10$ with German industrial conditions, and $+.52 \pm .08$ with conditions in the United States.

CHART 43

BUSINESS CONDITIONS AND EMIGRATION FROM GERMANY: 1870-1913

Cycles in Emigration to the United States Compared with Business Conditions in Germany (Fig. A) and the United States (Fig. B)

Percentage deviations from smoothed seven-year moving averages, expressed as multiples of their standard deviations



*For numerical data see Table 48 and footnote to Chart 40.

changes in the United States, or, as in 1886, 1904, and 1913, become evident in the year following. When we examine the periods in which the cyclical movements in the two countries are most conflicting, we find that in 1892 improving business conditions in the

United States and declining activity in Germany are accompanied by increasing emigration; that the decline in 1896, unique to the United States, is followed, somewhat tardily, by a decline in emigration in 1897; and that in 1902 German emigration is increasing and industrial conditions in the United States improving, while conditions in Germany are on the decline. On the contrary, in 1903, emigration increased despite the beginning of industrial decline in the United States. We shall return presently to a closer examination of this latter period.

Pig Iron Production.

Inasmuch as pig iron is a basic factor in manufacturing, it seems worth while to supplement the preceding analysis with a comparison of the relation between emigration and the production of pig iron. Following the Franco-Prussian War and the formation of the German Empire in 1871, the industrial activities of Germany grew apace. Is the marked growth of the German iron and steel industry accompanied by an increase or a decrease in emigration from Germany? Is emigration high when the industrial machine is slowing down or when it is running at full speed? Does the condition of the iron industry in the United States or in Germany, as an index of business conditions, offer the most reasonable and consistent explanation of fluctuations in emigration from Germany to the United States?

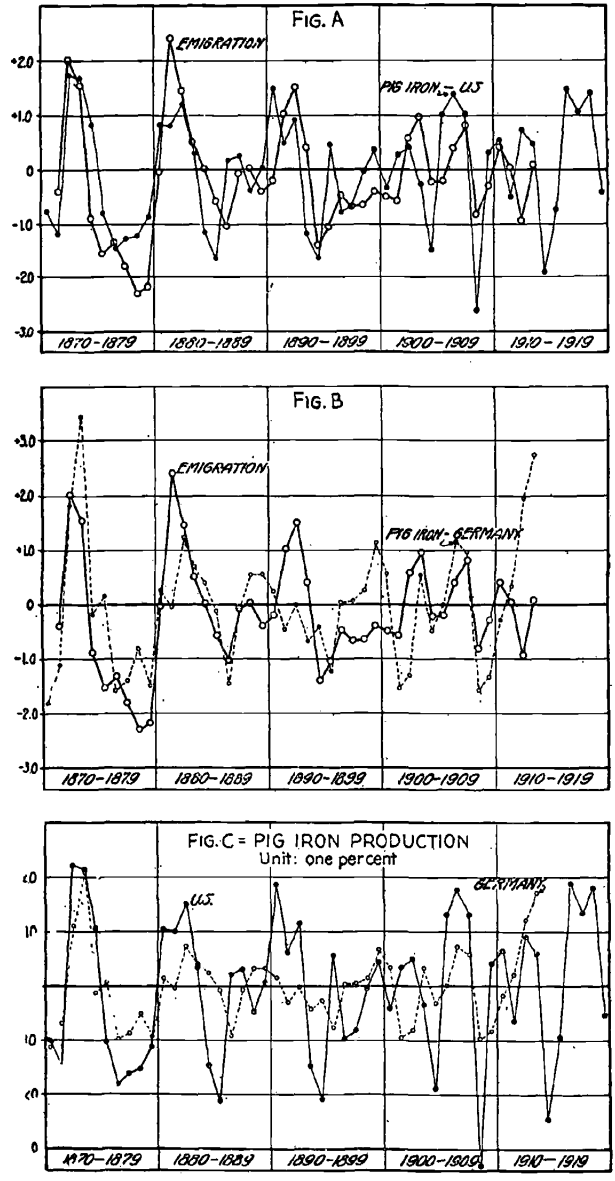
The first striking fact that confronts us in analyzing the relation of emigration and pig iron production in Germany is that the rapid growth of the iron industry is accompanied, particularly after 1881, by a downward trend in emigration.

In Chart 44 we have the basis for an appraisal of the relation between cyclical fluctuations in emigration from Germany to the United States and the condition of the iron industry in the two countries, in so far as this is correctly represented by pig iron production. The chart is in three sections, each representing deviations from seven-year moving averages. The first shows the cyclical fluctuations of emigration from Germany to the United States compared with pig iron production in the United States, with vertical scales in units of the respective standard deviations of the two series. The second section shows a similar comparison for emigration and pig iron production in Germany. The third compares the two pig iron curves in terms of percentage deviations from seven-year moving averages, and consequently does not iron out

Chart 44

Cycles in Emigration from Germany to the United States and in Pig Iron Production[a]

Units: Fig. A and Fig. B = one standard deviation; Fig. C = one per cent



[a]Sources: pig iron curves in Fig. A, from Table 14; in Fig. B, computed from Table 50; in Fig. C, direct from Table 50. The emigration curve is identical with that in Chart 40, except that the moving averages from which the deviations are taken are not smoothed.

differences in the curves due to differences in their degree of fluctuation.

As illustrated by Fig. A of Chart 44 emigration from Germany to the United States shows a relatively high degree of correlation with pig iron production in the United States, but at frequent points indicates a lag of about one year.

TABLE 50.—CYCLES IN PIG IRON PRODUCTION IN GERMANY AND THE UNITED STATES: 1870-1914

Percentage deviations from seven-year moving averages

YEAR	UNITED STATES[a]	GERMANY[b]	YEAR	UNITED STATES	GERMANY
1870.....	— 9.9	—11.2	1895....	+ 5.9	— 7.5
1871.....	—14.8	— 6.9	1896....	— 9.8	+ 0.2
1872.....	+22.1	+11.1	1897....	— 8.1	+ 0.4
1873.....	+21.3	+21.0	1898....	— 0.4	+ 1.6
1874.....	+10.7	— 1.2	1899....	+ 4.6	+ 6.9
1875.....	—10.2	+ 0.8	1900....	— 4.0	+ 3.4
1876.....	—18.1	— 9.8	1901....	+ 3.5	— 9.5
1877.....	—16.1	— 8.7	1902....	+ 5.2	— 8.0
1878.....	—15.2	— 5.0	1903....	— 3.2	+ 3.4
1879.....	—11.1	— 9.3	1904....	—18.8	— 3.0
1880.....	+10.4	+ 1.6	1905....	+13.1	0
1881.....	+10.1	— 0.3	1906....	+17.8	+ 7.2
1882.....	+15.2	+ 7.5	1907....	+13.1	+ 6.0
1883.....	+ 3.7	+ 4.2	1908....	—33.1	— 9.7
1884.....	—14.6	+ 2.4	1909....	+ 4.1	— 8.2
1885.....	—21.2	— 0.8	1910....	+ 6.7	— 1.7
1886.....	+ 2.2	— 9.1	1911....	— 6.3	+ 2.1
1887.....	+ 3.2	— 0.7	1912....	+ 9.1	+12.1
1888.....	— 4.8	+ 3.3	1913....	+ 6.1	+17.0
1889.....	+ 0.7	+ 3.3	1914....	—24.3	—14.2
1890.....	+18.7	+ 1.6			
1891.....	+ 6.3	— 2.9			
1892.....	+11.5	— 0.1			
1893.....	—14.7	— 4.2			
1894.....	—20.9	— 2.6			

[a]Computed from data in Table 12-A.
[b]Computed from annual statistics published in *Volkswirtschaftliche Chronik-Abdruck aus den Jahrbüchern für Nationalökonomie und Statistik* and in *Stahl und Eisen*.

Likewise, in Fig. B, we find evidence of a tendency for activity in the iron industry in Germany to coincide with the fluctuations in emigration, but with less definite indication of a lag in emigration.[15]

[15]The Pearsonian coefficients of correlation are (1) emigration and pig iron in the United States, $+.57 \pm .07$ if no lag is assigned, and $+.44 \pm .08$ with a lag of one year ascribed to emigration; (2) emigration and pig iron in Germany, $+.58 \pm .07$ with no lag, and $+.14 \pm .10$ with lag of one year.

In fact in some instances, the emigration movement precedes the corresponding change in pig iron production. For example, emigration reached high points in 1872 and 1881, and a low level in 1894, while the corresponding points in the pig iron curves are in 1873, 1882, and 1895, respectively.

The suggestion conveyed by the analysis of these two sections of the chart is that cyclical fluctuations in industrial conditions in the United States and Germany are substantially similar but that in some instances the United States movement anticipates the German movement by about a year, and that coincident high industrial activity in the two countries is accompanied by large emigration from Germany and an industrial depression by small emigration. This apparent dominance of the "pull over the push" may find some explanation in the fact that the fluctuations in industrial conditions in the United States appear more violent than those in Germany. This is illustrated by the comparison of the two pig iron curves in the lower section of Chart 44, expressed as percentage deviations from seven-year moving averages. As a rule, the American curve rises higher in prosperity and falls further in depression, so that even when industrial expansion in the two countries coincides, the greater volume of the American fluctuation affords one logical explanation of its effectiveness in attracting an increase in immigration from Germany.

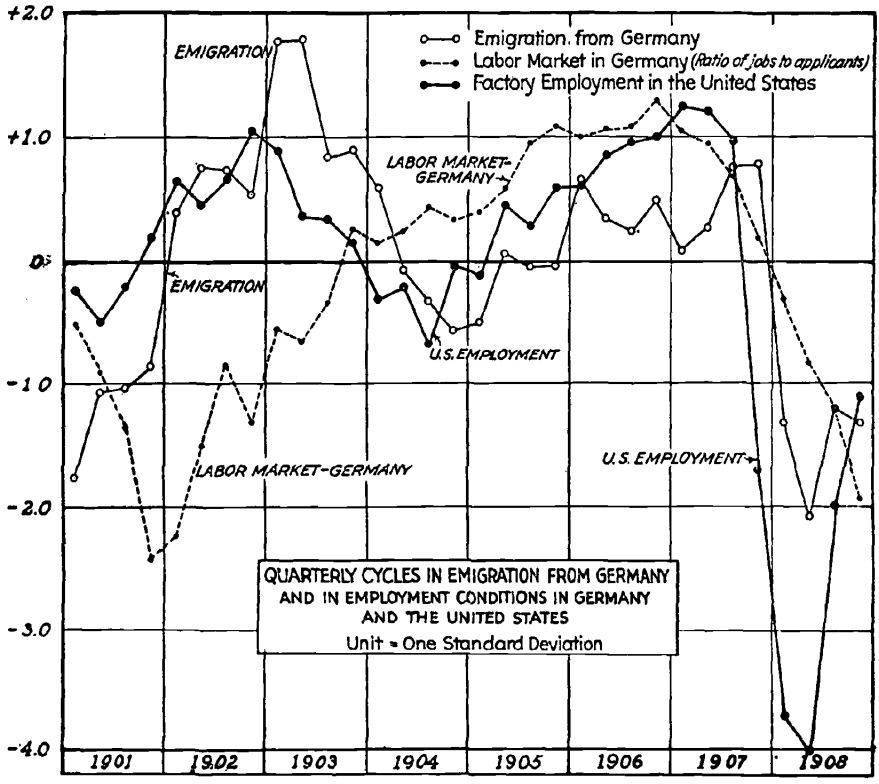
Employment in Germany and the United States (Chart 45)

A comparison of employment conditions in the United States and Germany, by quarters, from 1901 to 1908, affords an opportunity for further study of a period which is marked by substantial differences in the concurrent status of industry in these two countries. From 1901 to 1904, inclusive, the cyclical movement of quarterly employment in Germany was, on the whole, contrary to the corresponding movement in the United States, particularly in 1902, which was a year of low employment in Germany but a boom year in the United States. In 1905 to 1908, on the other hand, the two employment curves show better agreement, though the German labor market does not exhibit a recovery movement in the second half of 1908 such as occurred in the United States.

The cyclical movement in emigration from Germany appears in this period to be determined by, or at least to vary with, employment conditions in the United States. With the exception of minor irregularities and an occasional lag of from one to three

quarters, it rises with the curve for United States factory employment in 1901 and 1902, falls with it in the latter part of 1903 and most of 1904, and exhibits a general upward tendency in common with it after 1904 until checked by the depression of 1908.

CHART 45[a]



[a]The numerical data for the German series are in Table 51; the quarterly cycles for factory employment in the United States are averages of the monthly cycles in Appendix Table V.

Emigration from Germany to Countries other than the United States.

The official recorded emigration from Germany to countries other than the United States from 1870 to 1913 was relatively small, exceeding ten thousand persons only in a few years, and constituting as a rule less than twenty per cent of total emigration.[16]

[16]Kaiserliches Statistisches Amt, *Vierteljahreshefte zur Statistik des Deutschen Reichs*, total emigration from principal ports of departure.

The cyclical movements of this "other emigration" evidence a fair degree of similarity to the cycles in emigration to the United States, particularly in the first two decades after 1870, but there are a number of instances in which the direction of the cyclical movements of these two streams of emigration are divergent, such as the changes, compared with the previous year, in 1889, 1892, 1893, 1906 to 1908, and 1910 to 1912.[17] The occurrence of such divergencies is also indicated by the fact that emigration to other countries varies, for example, from 23 per cent of the total in 1876 to only 7 per cent in 1882, and from 4 per cent in 1907 to 26 per cent in 1912 and 1913, this diversity indicating that there is a reasonable

TABLE 51.—QUARTERLY CYCLES IN EMIGRATION AND THE STATE OF THE LABOR MARKET, GERMANY, 1901-1908

Deviations from the mean adjusted for seasonal variation. Unit = one standard deviation

YEAR	EMIGRATION FROM GERMANY[a]				RATIO OF APPLICANTS TO JOBS (SIGNS REVERSED)[b]			
	1ST Q	2D Q	3d Q	4TH Q	1ST Q	2D Q	3D Q	4TH Q
1901	−1.76	−1.07	−1.03	−0.86	−0.51	−0.91	−1.35	−2.42
1902	+0.39	+0.76	+0.73	+0.54	−2.23	−1.50	−0.85	−1.31
1903	+1.77	+1.78	+0.84	+0.90	−0.54	−0.65	−0.33	+0.27
1904	+0.59	−0.07	−0.32	−0.56	+0.15	+0.24	+0.43	+0.33
1905	−0.48	+0.07	−0.04	−0.03	+0.40	+0.58	+0.95	+1.08
1906	+0.66	+0.34	+0.24	+0.49	+1.00	+1.07	+1.08	+1.29
1907	+0.08	+0.27	+0.76	+0.78	+1.05	+0.94	+0.68	+0.18
1908	−1.32	−2.08	−1.20	−1.32	−0.31	−0.83	−1.20	−1.93

[a]Computed from monthly statistics published by the Kaiserliches Statistisches Amt, *Vierteljahreshefte zur Statistik des Deutschen Reichs.*

[b]Computed from statistics of the number of applicants per 100 jobs in employment offices, in *Der Arbeitsmarkt*, J. Jastrow, editor, for the years prior to 1907; and in *Reichs-Arbeitsblatt*, Kaiserliches Statistisches Amt, for 1907 and subsequent years.

likelihood that cyclical fluctuations in emigration were not dominated primarily by economic conditions in Germany but that the conditions in the countries of destination were exercising a considerable influence upon such cyclical movements.

Influence of Crop Failures.

The suggestion occurs that agricultural rather than industrial conditions in Germany may explain emigration. We have not made a close statistical study of crop yields in Germany but have com-

[17]Based upon a comparison of the cyclical curves in Chart 43 with a similar curve for "other emigration," not here reproduced.

pared the general tenor of crop reports with the current volume of emigration, and also with the changes in emigration in the following year, inasmuch as the effect of crop failures, if any, would not, in many cases, be fully effective upon emigration until the succeeding year. We find no close or consistent relationship between harvests and emigration. Poor crop years are sometimes years of low, sometimes of high, emigration. They are sometimes followed by increased emigration, but almost equally often by decreased emigration. Similarly, years of excellent crops are sometimes accompanied or immediately followed by rising emigration, in other years by declining emigration.

To illustrate, poor crops in 1873 are followed, in the succeeding year, by a sharp cyclical drop in emigration,[18] in 1874 by a mild drop, in 1880 by a sharp rise, in 1881 by a drop, in 1886, 1889, and 1891, by a moderate rise. Likewise, in about fifty per cent of the cases in which good or excellent crops are reported, the cyclical change in emigration in the following year is a decrease; in the other fifty per cent, an increase.

IMMIGRATION FROM ITALY

The flow of immigration from Italy to the United States from 1870 to 1914 was characterized by a pronounced upward trend, both in actual numbers and in proportion to the total immigration to this country.[19] In fact, in recent decades Italy has become the largest single contributor to the stream of immigrants entering the United States. In the twenty-four years ending June 30, 1924, about three and one half million immigrants designated Italy as their country of origin or of last permanent residence. A large proportion of these, however, subsequently returned to their native land. The immigration movement from Italy has also been characterized by a strong cyclical movement, which fact suggests the special desirability of a comparison between it and cycles in economic activity in the United States and Italy.

Business Cycles in Italy and the United States (Chart 41)

We have previously noted, in comparing business cycles in the United States with those in important European countries, that the cycles in Italy, either because of the less adequate information

[18]See Chart 43.
[19]See Charts 33 and 35, in the early part of this chapter.

upon which the index for Italy was based, or because of peculiarities in the economic life of that country, evidence the least resemblance to the business cycles in the United States.

With which movement, then—cyclical fluctuations in Italy or cyclical fluctuations in the United States—are the fluctuations in immigration most nearly comparable? A preliminary answer to this question is given by the facts presented in Chart 46, which contains comparisons of the cycles in Italian immigration to the United States, first, in the upper section of the chart, with Italian foreign trade, and, secondly, in the lower section, with economic conditions in the United States.

The impression received from an examination of this chart is that the agreement between concurrent items is appreciably closer between Italian immigration and the United States industrial composite than it is between Italian foreign trade and Italian immigration. Nor does it appear obvious that a different conclusion would be reached if a lag were assigned to the influence of economic conditions upon immigration.[20]

In a few years, such as 1893, immigration increases with activity in Italy despite an industrial decline in the United States, but as a rule in those instances in which the index of Italian foreign trade shows marked differences from the United States industrial composite—as in 1876, 1888, and 1902—the course of immigration is apparently dominated by the course of economic activity in the United States. However, in some of the years in which changes in immigration from Italy are not closely similar in direction or degree of change with economic conditions in the United States—as in 1889 and 1896—some argument is afforded for the theory that activity in Italy decreases emigration, and vice versa, for in 1889 foreign trade boomed and emigration to the United States declined, and in 1896 foreign trade declined but immigration boomed. This absence of a clear and consistent relationship between foreign trade and emigration from Italy suggests the desirability of utilizing additional bases of comparison. Industrially, Italy is different in essential respects from the other leading emigrant countries which we have considered. The typical Italian immigrant comes largely

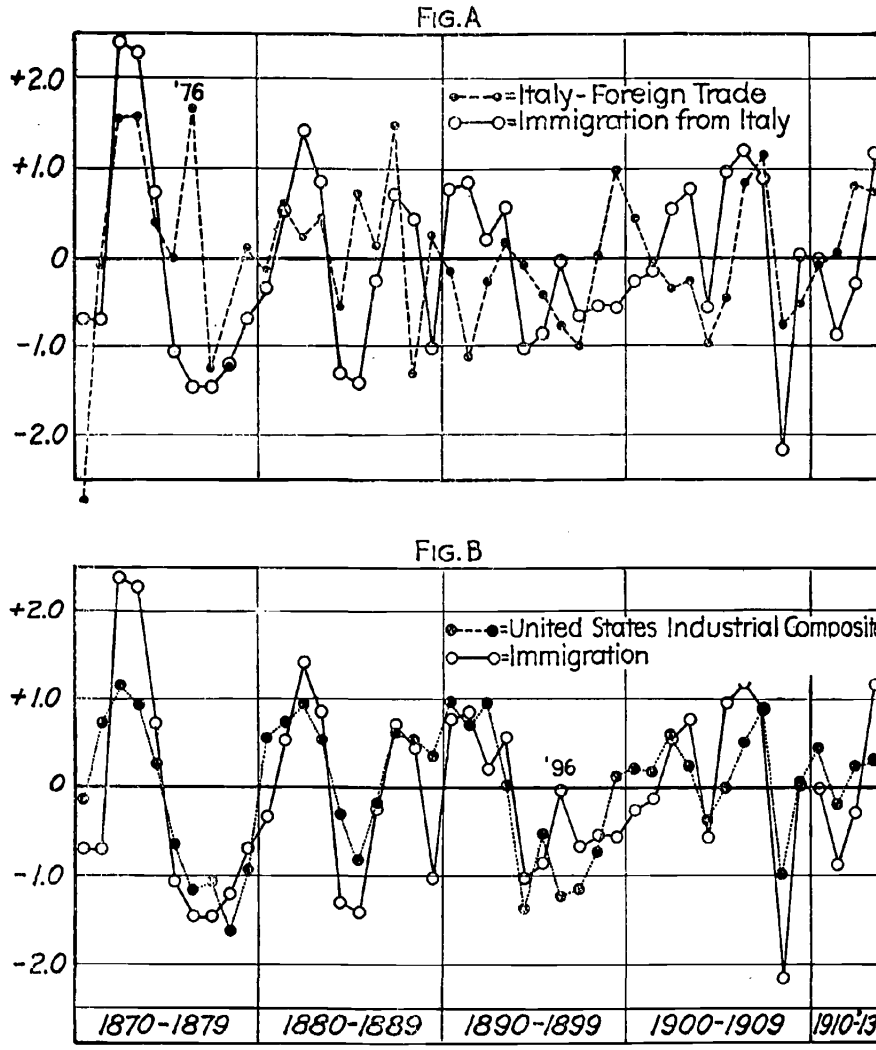
[20]These conclusions are further supported by the coefficients of correlation, which, with their "probable errors", are as follows: for concurrent items, only $+.34 \pm .09$ for foreign trade and immigration and $+.55 \pm .07$ for the United States composite and immigration; and, with a one year lag assigned to immigration, only $+.16 \pm .10$ for foreign trade and immigration and $+.35 \pm .09$ for the United States composite and immigration.

CHART 46

BUSINESS CONDITIONS AND IMMIGRATION FROM ITALY: 1870-1913.

Cycles in Immigration from Italy to the United States Compared with Cycles in Foreign Trade in Italy (Fig. A) and with Business Conditions in the United States (Fig. B)

Unit = one standard deviation



•For numerical data see Table 48 and footnote to Chart 40.

from the agricultural classes, where he has occupied the status of a laborer. Consequently, it is particularly pertinent to inquire as to the extent to which crop conditions in Italy account for fluctuations in emigration from that country.

Aggregate Value of Leading Crops in Italy (Chart 47)

As an aid to the determination of the relation between crop conditions and emigration, we have constructed an index of the aggregate annual value of leading crops in Italy. Inasmuch as a large crop may bring low prices in some years, but in others, because of adverse conditions in other parts of the world, may be accompanied by good prices, it appeared probable that an index of the product of quantity and price would give the best evidence of the prosperity of the agricultural classes. The crops used in this index are wheat, maize, wine, rice, and olive oil, for the years 1884 to 1913, inclusive. The estimated values of the several crops, together with a brief footnote description of the method used, are given in Table 52.

Crop Values in Italy and Pig Iron Production in the United States.

In view of the fact that Italy is predominantly an agricultural country, whereas the Italian laborer in this country engages primarily in industrial operations, it is desirable to ascertain whether crops in Italy or industrial conditions in the United States exercise the greater influence upon the cyclical fluctuations of immigration from Italy. For this purpose we have used the index of aggregate values of leading crops in Italy described in the above paragraph and the volume of pig iron production in the United States. It does not appear probable that the effect, if any, of crop conditions in Italy would become apparent until after some months, hence the comparisons made are chiefly between immigration in the fiscal year ending June 30th, and crop values and pig iron production of the calendar year ending on the preceding December 31st. This is tantamount to assuming an approximate lag of six months in the effect of crops or of industrial activity upon immigration.

The outstanding relations are evident upon examination of Chart 47. The cyclical fluctuations in immigration from Italy, and those in pig iron production in the United States, in the years 1884 to 1914 inclusive, show a general, although not invariable, similarity in their general contour. As a rule, a change in pig iron is accompanied, either in the same year or in the following year, by a

change in immigration, similar in direction at least. In the central part of the period, the agreement with fluctuations in pig iron appears to be best when the immigration ending June 30th is compared with pig iron production for the twelve months ending December 31st of the preceding year; but prior to 1889 and in

TABLE 52.—ESTIMATED VALUE OF LEADING CROPS IN ITALY: 1884-1913*

Unit: first column = one standard deviation; others, = one million lire

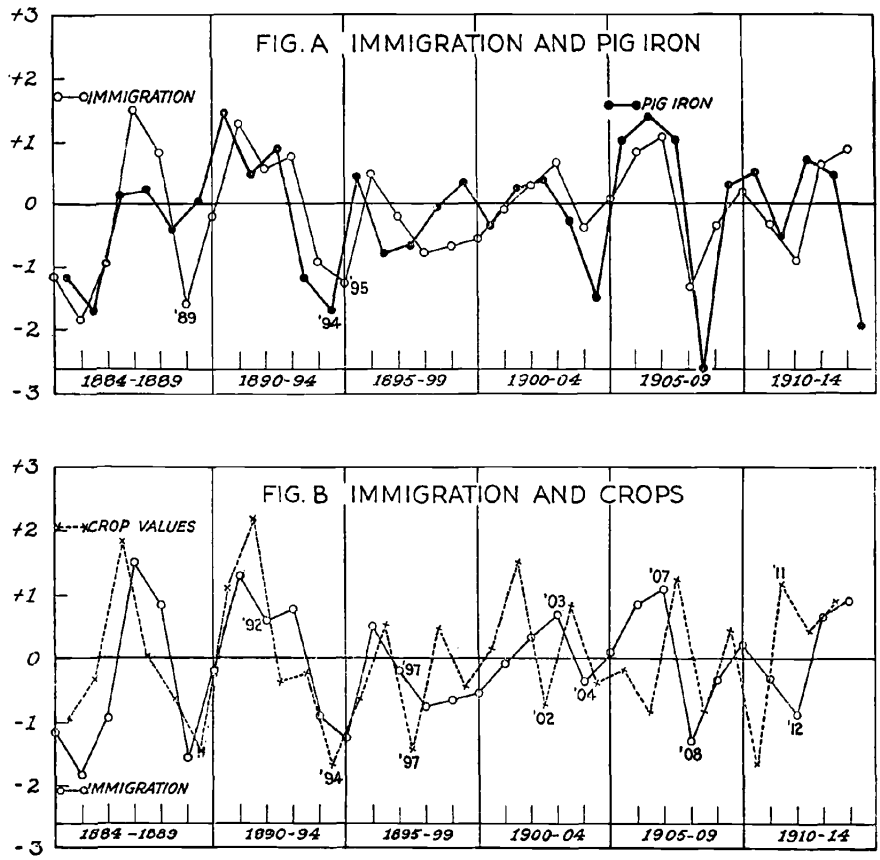
YEAR	TOTAL OF THE FIVE CROPS		WHEAT	MAIZE	WINE	RICE	OLIVE OIL
	CYCLES	VALUE					
1884	—0.96	2,256.4	823.5	351.1	684.0	126.2	271.6
1885	—0.33	2,421.0	771.8	309.7	946.9	124.0	268.6
1886	+1.81	2,958.8	791.8	319.0	1,376.2	134.5	337.3
1887	+0.02	2,494.2	837.3	286.1	1,036.0	116.0	218.8
1888	—0.64	2,396.7	731.4	276.5	985.4	80.6	322.8
1889	—1.46	2,130.5	770.0	322.7	739.7	131.8	166.3
1890	+1.10	2,758.1	917.2	294.8	1,119.4	93.5	333.2
1891	+2.19	2,931.2	1,071.9	294.2	1,183.7	110.1	271.3
1892	—0.39	2,188.7	859.9	283.7	781.4	104.4	159.3
1893	—0.24	2,254.7	872.3	283.5	739.8	67.9	291.2
1894	—1.68	1,778.8	700.2	211.7	593.8	72.8	200.3
1895	—0.66	1,991.7	732.8	277.2	630.4	77.8	273.5
1896	+0.51	2,322.3	981.7	294.0	829.4	53.7	163.5
1897	—1.43	1,903.5	677.1	250.8	708.8	91.8	175.0
1898	+0.48	2,637.2	1,111.5	333.4	856.4	92.9	243.0
1899	—0.44	2,474.1	1,054.5	348.2	877.5	99.9	94.0
1900	+0.14	2,788.7	1,030.6	368.3	1,044.3	142.4	203.1
1901	+1.51	3,397.5	1,292.3	433.3	1,192.9	133.4	345.6
1902	—0.73	2,709.9	1,020.9	324.4	1,036.0	133.8	194.8
1903	+0.82	3,302.2	1,338.3	406.4	1,053.0	152.4	352.1
1904	—0.41	2,998.3	1,220.3	413.5	1,022.0	152.2	190.3
1905	—0.19	3,024.0	1,254.4	444.2	790.8	135.4	399.2
1906	—0.86	2,919.8	1,330.4	424.8	893.5	145.8	125.3
1907	+1.24	3,637.6	1,382.1	404.2	1,347.6	164.9	338.8
1908	—0.85	3,048.4	1,339.0	438.2	1,035.0	150.8	85.4
1909	+0.43	3,694.1	1,596.9	479.2	1,050.1	141.8	426.1
1910	—1.67	3,018.0	1,191.1	484.5	966.7	135.0	240.7
1911	+1.17	4,262.3	1,455.1	470.0	1,791.5	153.3	392.4
1912	+0.43	4,078.6	1,409.0	520.1	1,853.2	147.2	149.1
1913	+0.91	4,323.1	1,705.0	516.2	1,671.7	179.3	250.9

*The "cycles" are deviations from a seven-year moving average of the estimated total value of the five crops. The values of the separate crops were computed by multiplying annual production by the average export prices of the given commodity in the year in question, except that for wheat the average prices in the markets of the Kingdom were used. Sources: Minister of Agriculture (Italy), *Annuario Statistico Italiano*, 1884 to 1914; and *Year Book of the International Institute of Agriculture—Statistical Bureau 1909-1921*.

CHART 47

IMMIGRATION FROM ITALY COMPARED WITH PIG IRON PRODUCTION IN THE UNITED STATES AND CROP VALUES IN ITALY: 1884-1913.

Unit = one standard deviation



•Cycles in immigration from Italy into the United States are computed from data given in Table 44; the cycles in United States pig iron production, Table 14; crop values in Italy, Table 52. The pig iron and crop data are for calendar years; the immigration data, for years ending June 30th.

several years beginning in 1904, the best agreement is reached when immigration for the year ending June 30th is compared with pig iron production for the year ending the following December 31st. This apparent tendency for immigration to anticipate changes

in pig iron production may be explainable largely by the fact that the bulk of the immigrants credited to any fiscal year actually arrive in the second half of the year, that is, between January and June, inclusive, so that, for example, the effect of the industrial boom indicated by pig iron production in 1909 would, if there is little or no lag in its effect on immigration, be evident in the immigration for the year ending June 30, 1909.

Crop values, as portrayed in the lower section of Chart 47, are more erratic in their fluctuations than pig iron production. Never, in the thirty years covered, is the direction of change constant for more than two years. Also, the degree of agreement between crop values and pig iron production is relatively low. Nor is there close agreement between immigration and crop values.[21] However, if immigration (fiscal years) is compared with crop values of the year terminating six months earlier, there is evident in several instances a tendency for poor crops to be followed by an increase in immigration and vice versa. For example the immigration curve rises in 1890, 1893, 1900, 1903, 1905, 1907, 1909, and 1913, while the crop value curve shows a decline for the preceding year. Also, in 1892, 1897, 1904, 1908, and 1912, the immigration curve declines while the crop value curve rises in the preceding year.

But are these years in which relatively poor crops are followed by an increased emigration, or good crops by decreased emigration, also years in which immigration from Italy is not well explained by the changes in industrial activity in the United States? On the contrary, in all of the fourteen years just mentioned but 1905 and 1909, an increase in Italian immigration to the United States is preceded by an increase in pig iron production, or a decrease in such immigration by a decrease in pig iron production; so that, in view of the further fact that in about half of the period under consideration an increasing emigration to the United States follows relatively good crops, there is scant evidence to support the theory that cyclical fluctuations in emigration from Italy are largely due to crop conditions in the preceding year.[22]

[21]The coefficient of correlation between crop values and pig iron production, when concurrent items are compared, is +.32 with a "probable error" of +.11; and between crop values in calendar years and Italian immigration to the United States in the respective years ending six months later is +.31 ±.11.

[22]The relationship between the three series under discussion may also be expressed in customary mathematical terminology, that is, by stating the coefficients of correlation, which are +.50 ±.09 for pig iron production and immigration from Italy in the fiscal year ending six months later; and only +.31 ±.11 for the corresponding comparison between Italian crop values and immigration from Italy.

The general conclusion would appear to be that immigration from Italy to the United States exhibits a better agreement with pig iron production in the United States than it does with crop values in Italy. It remains to test this assumption by other methods of approach.

Fluctuations in Immigration Peculiar to Italy.

In addition to the above comparison between the statistical evidences of fluctuations in crop values, pig iron production, and immigration from Italy, an examination was made of the unique movements in immigration from Italy; for it appears plausible that further knowledge of the influences which account for fluctuations in Italian migration may be obtained by examining the circumstances surrounding marked changes in the ratio of immigration from Italy to total immigration.

We have had occasion to note the fluctuations in this ratio (See Chart 35 and Table 45), and also the fluctuations in the actual numbers from Italy (Chart 33 and Table 44). These two sets of fluctuations are frequently similar. In eleven years in the two decades ending in 1914, an increase in actual numbers of immigrants from Italy results in an increase in the fraction of total immigration which arrived from that country, indicating that there has not been an equivalent change in the other elements in the immigrant stream. However, there are also several instances, such as 1902 and 1903, where a substantial change in the number of immigrants brings no equivalent change in the ratio to total immigration.

Comparisons with Crop Conditions.

A comparison of the marked changes in the ratio of immigrants arriving from Italy to total immigration with descriptive statements of crop conditions[23] prevailing in the preceding calendar year reveals a slight tendency for a relative increase in this ratio to be preceded by somewhat poorer crops than the years in which there is a relative decline in immigration. In the five years ending June 30, 1892, 1904, 1907, 1908, and 1910, this ratio declined one tenth or more from the ratio of the preceding year. In the years ending the preceding December crops are reported as excellent in one, good in two, and fair in two. On the other hand, in seven years (1891, 1893, 1896, 1897, 1906, 1909, and 1913) in which the ratio increased

[23]Based, not on our index of aggregate values of leading crops, but on descriptive statements of crop conditions compiled by Dr. W. L. Thorp.

one-tenth or more, good crops are reported for only two of the preceding years, fair for three, and poor for two. However, in three instances (1894, 1897, and 1910) in which poor crops or agricultural depression are recorded, there is no substantial increase in the immigration ratio for the following fiscal year. So again, we reach the conclusion that while there may be a slight tendency for poor crops to stimulate unusual emigration from Italy, and vice versa, it cannot be said to be a pronounced tendency.

Comparisons with Pig Iron Production in the United States.

Taking into account the general upward trend in the fraction of total immigration represented by the number of immigrants from Italy, the movements in this ratio which particularly challenge explanation are the declines or low points in 1875, 1880 and 1881, 1884 and 1885, 1889, 1892, 1894 and 1895, 1900, 1904 and 1905, 1908, and 1912 (Chart 35, p. 160).

It will be noted that in most of these instances, a relatively low immigration from Italy—low relative to total immigration—coincides with or immediately follows more or less marked periods of industrial depression, or at least of slackening activity, in the United States. This frequent coincidence between industrial depression and relatively low immigration from Italy suggests that Italian immigration is unusually sensitive to industrial conditions in the United States.

Emigration to Countries other than the United States.

Emigration from Italy was large long before the movement of Italian emigrants to the United States reached a substantial volume. In each year prior to the eighties, emigration to the United States was less than ten per cent of the total emigration to transoceanic countries, Europe, and the Mediterranean countries.[24] In the eighties and nineties, it only occasionally amounted to over twenty per cent of the total. But from 1900 to 1914, the proportion going to the United States ranged from 23 to 45 per cent. As a rule, this ratio was relatively high, as compared with the immediately preceding and succeeding years, in prosperous years in the United States, such as 1903 and 1906, and relatively low in the periods marked by depression tendencies, namely, 1901, 1904, 1908, and 1911. This fact adds some additional weight to the evidence supporting the

[24]Based upon the statistics of emigration published by the Director General of Statistics, Italy.

conclusion that cyclical fluctuations in migratory currents to the United States are determined largely by conditions in this country; for if conditions in Italy were the dominant factor, we should expect the ratio of total emigration going to the United States to show less sensitiveness to economic conditions in the United States.

OTHER COUNTRIES OF EMIGRATION

For the remaining sources of emigration to the United States, we have not attempted to make statistical comparisons of the kind made for the United Kingdom, Germany, and Italy; but for some of them we have endeavored to trace the effect of exceptionally good or exceptionally poor business or crop conditions upon the concurrent or immediately subsequent volume of emigration. Also, when substantial changes appear in the proportion of total immigration made up by immigrants from the stated country, we have sought to ascertain whether special conditions existed in the country of emigration to which the change might reasonably be attributed. This survey is intended to be suggestive rather than exhaustive. The data concerning immigration which are utilized in these comparisons appear largely in Tables 44 and 45 and the accompanying charts (32, 33, 34, 35) in the early part of this chapter; and the statements concerning conditions in the selected countries are based chiefly upon Professor Wesley C. Mitchell's treatise on *Business Cycles*, and upon the recently published "Business Annals" prepared by Dr. Willard L. Thorp, of the Staff of the National Bureau of Economic Research.

Sweden.

Immigration to the United States from Sweden reached its maximum with a total of almost sixty-five thousand in the year ending June 30, 1882, but since 1893 the annual inflow of immigrants from that country has exceeded thirty thousand only in the two years ending June 30, 1902, and 1903, respectively. The waves of the cyclical movement in Swedish emigration to the United States since 1870 have coincided substantially with the alternations of prosperity and depression in the United States, that is, with a slump following 1873, another in the middle eighties, a minor decline in the years ending June 30, 1889 and 1890, a marked decline in the nineties beginning with the depression of 1893-1894, and further slumps in the years ending June 30, 1904, 1908, and 1912.

On the other hand, an examination of the major features of agricultural and industrial conditions in Sweden does not afford an equally consistent explanation of the cyclical fluctuations in Swedish emigration to the United States. For example, excellent crops in 1892 and 1906 were followed in the respective fiscal years ending six months later, by a decline in emigration to the United States; but in 1890 and 1900, by an increase. Likewise, poor crops in 1902 were followed by increasing emigration, but poor harvests in 1904 by decreasing emigration.

Also, when we turn to the general business or industrial conditions in Sweden, no obvious consistent relation appears between cyclical changes in emigration to the United States and the concurrent prevalence of good or bad times in Swedish industry. For example, the years 1892, 1893, and 1894 were characterized in Sweden by depression in business, and were followed by declining emigration to the United States; also, in 1895 conditions underwent a substantial improvement, and emigration to the United States in the year ending June 30, 1896, increased decidedly. In these years, it would appear that bad conditions in Sweden diminished emigration, while good conditions stimulated it. On the other hand, the prosperous years of 1896, 1897, and 1898 were followed by low emigration, and the poor harvests and industrial depression of 1902 in Sweden were followed by increased emigration to the United States, which reached a peak, for this century, of approximately forty-six thousand in the year ending June 30, 1903.

In brief, while conditions in Sweden have probably exerted some influence upon fluctuations in emigration to the United States in the period since 1870, that influence has usually been consistent with, or at least less effective, than the attracting and repelling power, respectively, of good and bad conditions in the United States.

Russia.

Immigration to the United States from Russia was relatively small prior to the eighties, not reaching ten thousand in any one year. It increased sharply in the year ending June 30, 1882—rising from about 5,000 in the previous year to almost 17,000. Either the prosperous conditions in the United States in the early eighties or the beginning of outrages against the Jews in Russia in April, 1881, offer a plausible explanation for this spurt. Likewise, after further persecution of the Jews in 1883 and 1884, immigration from Russia, which had slumped somewhat following the spurt of

1882, again rose to about 17,000 in the years ending June 30, 1885 and 1886, and then, with the improvement of conditions in the United States, rose rapidly to a peak of 81,511 in 1892. In these years good conditions in America acted as an attracting force and bad conditions in Russia as an expelling force, for in July, 1890, there was a revival of the attacks against the Jews and in 1891 the expulsion of the Jews from Russia was ordered by Imperial edict. Also, 1891 and 1892 were depression years in Russia with crop failures and famine conditions.

In 1893 conditions improved in Russia, but depression set in in the United States, accompanied by a decline in immigration from Russia.

The poor harvests of 1896 and 1897, contrary to the tendencies just noted in the previous occurrences of that kind, are followed, in the years ending June 30, 1897 and 1898, respectively, by a decided decrease in emigration to the United States, both absolutely and relatively to immigration from other countries.

From this point, immigration from Russia rapidly increased, both in good years and in bad years, until it reached a high point of about 263,000 in the year ending December 31, 1906. It is not obvious whether this 1906 boom was due to the coincident industrial activity in the United States or to the depression and disturbed conditions which prevailed in Russia in 1905 and 1906 and for some years prior thereto. It is noteworthy, however, that this rapid rise in the years prior to 1908 is shared by other emigrant countries, so that for several years after 1899, there is no marked change in the proportion between immigration from Russia and that from other countries (see Chart 35).

The Russian movement yielded to the general slump in immigration in 1908 and continued to decline in 1909, and again in 1911, then exhibited a spectacular increase to a total of about 291,000 in the twelve months ending June 30, 1913, and about 345,000 in the year ending December 31, 1913.

Though Russia had experienced a depression tendency toward the close of 1911, together with crop failures and some famine conditions, 1912 was a period of industrial activity, which continued into 1913, and crops were excellent in both 1912 and 1913; hence we do not find in Russian economic conditions an obvious explanation for the unprecedented increase in emigration. Nor, as we have noted in previous chapters, does the industrial boom in the United States in 1912 appear exceptional enough to account for the intensity

of the immediately subsequent increase in immigration, particularly from Russia, Italy, and Austria. On the whole, the evidence is less clear for Russia than it is for the other European countries studied that economic conditions in the United States have dominated the fluctuations in migration.

Austria-Hungary.

The fraction of total immigration to the United States originating in Austria-Hungary rose rapidly from less than five per cent in the seventies to 25.6 per cent in the year ending June 30, 1900, and from then to the opening of the war remained relatively steady, never reaching 27 per cent and falling below 20 per cent only in 1911. The large influence of industrial activity in the United States upon immigration from Austria-Hungary is indicated by the fact that from 1900 to 1914 each decline in pig iron production in the United States—that is, in 1901, 1904, 1908, and 1911 (Chart 35)—is accompanied by a concurrent decline in the ratio of immigration from Austria-Hungary to the total immigration. Sharp increases in this ratio in the years ending June 30, 1874, 1884, 1890, and 1896 challenge attention. Some significance in this connection may be attached to the fact that in Austria at least, which at that time was contributing the major portion of the immigration from Austria-Hungary, the respective calendar years terminating six months prior to the four years of relatively large immigration just mentioned were years of poor crops or, as in 1895, of agricultural depression despite good crops. However, too much importance should not be attached to such fragmentary data. A closer examination of the conditions of economic activity in Austria-Hungary would doubtless reveal further interesting relationships, but we have not thought it necessary to subject the heterogeneous conditions of the Dual Empire to close study, in view of the fact that probably clearer conclusions can be drawn from the data concerning the more homogeneous countries to which major attention has been given in this chapter.

CHAPTER SUMMARY

The above study of the international aspects of cyclical fluctuations in the current of migration, particularly of the immigration movement into the United States, reveals that this movement is on the whole dominated by conditions in the United States. The "pull" is stronger than the "push."

In those relatively infrequent periods when prosperity in the United States is coincident with depression in the country of emigration, the tendency for emigration to the United States to be high would presumably have the effect of ameliorating unemployment in the home country.

On the other hand, when, as frequently is the case, periods of prosperity or of depression are common to the United States and the leading countries of emigration, the effect is less fortunate. When prosperity is being experienced, emigration is relatively high; when depression reigns, it is relatively low. In earlier chapters we have seen that despite the sensitiveness of the flow of immigration to industrial conditions in the United States, the net effect of cyclical fluctuations in immigration is to aggravate, on the whole, the unemployment problem in the United States. It would appear that, in those periods when cyclical conditions in the two countries are similar, the effect on cyclical unemployment in the countries of emigration must be even less favorable than in the United States, for in such periods the emigrant tends to leave when industrial conditions are good and to remain at home when they are bad.