A REVIEW OF IRISH AGRICULTURAL PRICES.

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The official collection of Irish agricultural prices was first undertaken systematically by the Irish Land Commission in the year 1887, at which time also a record of prices from the year 1881 was compiled. In 1900 this work, along with other statistical duties, was transferred to the Department of Agriculture and Technical Instruction under the authority of the Act of 1899 constituting that Department. In 1923 a further change of control took place, when the statistical work of the last-mentioned Department was transferred to the newly-constituted Statistics Branch of the Department of Industry and Commerce, where these prices are now collected and compiled. As might be expected, these successive changes of control have involved no break in the continuity or comparability of the statistics.

In an appendix to this paper details are given of the various agricultural prices collected at the present time and of the years from which the statistics are available.

As may be seen, there is an unbroken record of official prices of all the leading agricultural products brought to market extending backwards to the year 1881. In addition, unofficial price statistics for most of these products are available for a considerable period anterior. A valuable record of many of these prices will be found in the Journal of this Society for the year 1893 in the form of a paper read before the Society by the late R. M. Barrington, LL.B. Further records of unofficial Irish agricultural prices will be found in a Board of Trade Return of Prices, No. 321, published in 1903.

By far the most valuable of these early price records, however, is the table to be found as an appendix to the official reports on Irish agricultural prices for the years 1906-7, 1907-8, 1908-9 and 1910, published by the Department of Agriculture.

In the words of these reports, "a table is given showing the average of the highest and lowest prices from 1840 to 1886. This table is based on the prices published in *Purdon's Almanac* and the *Farmer's Gazette,* and supplies materials for a period during which there were no official records." Sources of the prices are more fully indicated in the heading to the original table. The peculiar value of this table consists in the fact that it embraces a comparatively remote period during the greater part of which there are available annual statistics of the areas and yields of crops and numbers of live stock in the country. Price figures for periods prior to the forties lose much of their significance by reason of the fact that there are no statistics to measure the influence upon the agricultural activities of the people of any fluctuations which they show.

It is not proposed in this paper to exhibit or discuss to any great extent actual prices expressed in terms of money, but rather to indicate how the prices of the leading agricultural products have fluctuated (*a*) from one period to another, (*b*) relatively to one another, and (*c*) relatively to the trend of prices in general; also (*d*) to trace as far as may be possible within brief compass the influence of price changes upon the activities and the fortunes of the farmer.

As a first step in this direction the accompanying table (Table I.) has been prepared. It will be observed that this table shows, not *actual* but *comparative,* prices of the leading agricultural products since the year 1840 (in the case of store cattle and flax the commencing year is 1845) and that all the figures in the table are related to a basic figure of 100 for each product for the year 1840 (100 for 1845 in the case of store cattle and flax). Hence, all the figures in the table are comparable with each other whether the comparison be made vertically for any period in respect of a single product or horizontally for any year in respect of all or any of the products included. For the period 1840 to 1881 the figures in the table are based upon the unofficial prices published in the reports of the Department of Agriculture already referred to, and from 1881 onwards official prices are used. The fact that no disharmony can be observed between the comparative price figures for the years immediately following 1881 and those for the years immediately preceding indicates that the two series of prices, although collected under very dissimilar conditions, confirm and support each other. A column is included in the table (Col. 16) showing the trend of general (wholesale) prices, also on a basis of 100 for the year 1840, as indicated by the *Statist-Sauerbeck* Index Number.

Table I.

Table showing Comparative Irish Agricultural Prices since 1840, reduced to a common basis of 100 at 1840 (or nearest year for which comparable price figures are available).

Year	Wheat	Oats	Barley	Hay	Potatoes	Flax	Butter	Pork	Wool	Eggs	Beef	Mutton	Store Cattle* 1-2 yrs.	Store Cattle* 2-3 yrs.	Statist Sauerbeck Index No. on basis of 100 for 1840	Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1840	100	100	100	100	100	—	100	100	100	100	100	100	—	—	100	1840
1845	98	118	118	92	88	100	92	92	106	96	103	120	100	100	84	1845
1846	131	187	175	69	323	95	105	117	94	100	104	120	129	170	80	1846
1847	98	107	116	81	254	90	99	149	82	124	105	125	157	190	92	1847
1848	87	96	100	56	292	94	87	115	65	106	110	120	143	180	76	1848
1849	66	83	85	48	215	118	74	88	71	100	79	105	97	150	72	1849
1850	73	101	87	60	219	124	74	92	92	102	81	100	89	130	74	1850
1851	66	89	85	50	175	112	83	94	89	94	86	105	100	135	72	1851
1852	76	97	97	—	—	—	—	—	—	—	—	—	—	—	76	1852
1853	124	121	135	106	223	—	98	122	123	111	110	128	100	110	92	1853
1854	122	144	129	125	300	—	107	124	94	111	120	130	107	160	99	1854
1855	150	165	179	98	215	167	106	129	98	109	112	125	157	170	98	1855
1856	102	112	149	75	150	171	119	138	118	122	115	131	171	180	98	1856
1857	86	108	127	85	254	153	117	141	141	129	128	133	100	190	102	1857
1858	69	100	102	85	146	207	119	108	118	120	121	124	171	180	88	1858
1859	86	116	120	127	177	142	127	123	137	122	117	119	150	200	91	1859
1860	99	139	135	90	265	149	104	138	153	124	112	135	157	200	96	1860
1861	95	112	116	83	227	121	125	132	141	137	126	137	150	170	94	1861
1862	73	100	109	87	181	157	104	118	153	132	119	140	186	200	98	1862
1863	69	100	104	83	127	166	113	118	165	135	121	130	154	210	100	1863
1864	64	92	102	92	131	144	123	126	206	139	130	147	179	240	102	1864
1865	101	120	115	79	146	238	140	145	165	144	136	160	186	200	98	1865
1866	107	140	156	90	173	211	136	145	157	131	149	157	179	190	98	1866
1867	125	164	149	110	200	175	109	108	125	137	141	120	121	150	97	1867
1868	117	139	155	117	177	207	147	144	133	138	138	145	143	200	96	1868

TABLE I.—*Continued.*

Year	Wheat	Oats	Barley	Hay	Potatoes	Flax	Butter	Pork	Wool	Eggs	Beef	Mutton	Store Cattle* 1-2 yrs.	Store Cattle* 2-3 yrs.	Index No. on basis of 100 for 1840	Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1869	98	136	148	92	154	171	130	158	118	138	151	145	150	190	95	1869
1870	84	127	118	110	185	135	141	144	110	150	148	162	157	200	93	1870
1871	102	129	129	100	196	198	136	105	184	144	156	170	214	235	97	1871
1872	103	123	133	87	312	146	133	126	180	150	161	175	220	275	106	1872
1873	98	109	80	150	223	150	147	141	161	161	172	174	229	230	108	1873
1874	76	144	132	133	142	148	153	147	143	178	161	175	214	280	98	1874
1875	77	131	126	144	162	166	150	151	145	181	164	160	229	220	93	1875
1876	79	119	122	144	163	142	155	133	119	193	161	186	243	260	92	1876
1877	87	129	131	106	277	166	126	142	115	148	150	190	214	250	91	1877
1878	72	136	122	87	208	139	121	136	106	164	155	185	243	250	84	1878
1879	90	137	118	112	285	153	113	132	83	183	135	160	214	230	80	1879
1880	76	120	114	94	142	146	129	146	122	176	135	160	239	245	85	1880
1881	83	127	113	108	185	121	114	141	100	217	133	160	221	240	82	1881
1882	76	124	115	108	185	112	114	137	93	215	137	166	233	247	82	1882
1883	70	125	111	108	191	106	110	133	86	215	140	173	240	240	79	1883
1884	62	116	106	117	170	112	105	123	86	211	132	163	214	228	74	1884
1885	58	113	100	100	156	106	91	119	82	203	118	146	185	205	70	1885
1886	53	99	82	81	151	115	88	116	86	193	107	136	165	188	67	1886
1887	55	98	91	105	139	102	96	108	91	—	104	127	251	174	66	1887
1888	61	107	100	85	156	106	95	114	91	—	112	140	226	238	68	1888
1889	57	114	100	75	166	104	101	118	86	—	116	152	253	252	70	1889
1890	59	123	99	82	189	93	91	107	84	—	119	152	255	249	70	1890
1891	65	135	112	139	222	104	109	106	86	—	114	130	223	233	70	1891
1892	59	135	107	170	152	117	113	129	86	—	109	130	180	202	66	1892
1893	53	131	103	149	160	142	102	137	82	229	110	132	175	198	66	1893
1894	50	115	107	123	191	123	93	113	82	195	115	137	189	200	61	1894
1895	50	97	103	102	191	96	92	105	82	209	119	149	214	212	60	1895
1896	56	101	97	109	133	83	95	96	82	193	109	130	209	212	59	1896
1897	64	106	98	111	189	90	93	113	74	183	110	139	219	221	60	1897
1898	56	104	108	91	214	102	93	112	65	193	106	132	228	214	62	1898

TABLE I.—*Continued.*

Year	Wheat	Oats	Barley	Hay	Potatoes	Flax	Butter	Pork	Wool	Eggs	Beef	Mutton	Store Cattle* 1-2 yrs.	Store Cattle* 2-3 yrs.	Index No. on basis of 100 for 1840	Year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1899	54	104	101	98	173	112	101	101	61	199	115	135	238	221	66	1899
1900	56	109	105	129	208	123	101	121	62	199	119	142	243	235	72	1900
1901	56	116	108	123	191	117	105	131	49	199	115	137	243	235	68	1901
1902	54	120	110	131	177	112	102	133	48	197	122	136	233	231	67	1902
1903	55	109	107	117	216	107	99	123	67	207	116	147	255	245	67	1903
1904	63	112	110	135	208	119	95	112	88	213	114	149	250	238	68	1904
1905	61	114	108	131	177	119	105	133	112	231	110	147	243	233	70	1905
1906	56	119	108	127	177	123	107	137	114	241	110	—	240	228	74	1906
1907	71	125	109	116	243	123	103	135	103	249	115	157	255	240	77	1907
1908	70	115	113	120	214	111	113	129	69	251	119	146	260	247	71	1908
1909	68	120	111	147	177	125	106	149	92	269	121	122	267	252	72	1909
1910	62	111	106	159	202	152	108	161	98	265	125	146	284	266	76	1910
1911	66	125	109	134	216	149	112	137	94	271	121	136	299	271	77	1911
1912	68	138	131	132	220	142	112	148	96	279	125	143	294	271	82	1912
1913	66	120	112	125	237	126	109	171	109	283	129	159	308	282	82	1913
1914	77	143	111	132	210	162	114	160	115	297	132	159	313	289	82	1914
1915	103	186	159	177	247	309	144	199	159	380	176	184	374	348	104	1915
1916	124	226	222	202	335	404	169	239	174	460	200	219	454	433	131	1916
1917	144	305	238	229	474	464	215	336	164	633	258	263	529	513	169	1917
1918	150	330	262	294	345	537	251	410	168	1,065	279	303	576	574	185	1918
1919	150	334	357	359	466	641	298	423	258	1,013	292	333	588	593	199	1919
1920	189	347	331	314	630	686	338	503	162	934	330	412	665	682	242	1920
1921	136	231	196	251	382	247	218	346	54	675	258	299	597	595	150	1921
1922	97	191	135	281	293	259	193	282	57	479	192	263	442	419	126	1922
1923	92	174	139	192	278	249	172	216	84	412	177	278	431	407	124	1923
1924	115	191	197	217	505	299	193	209	142	442	181	270	427	403	134	1924
1925	118	172	140	189	334	237	189	260	114	497	183	269	443	403	131	1925

*From 1845 to 1881 the price figures are those for one-year-old and two-year-old cattle taken from the reports of country fairs held during the months of May and June in each year and published in the *Farmers' Gazette*.

It is perhaps necessary to point out that the original table for the period 1840-1881 generally shows two prices for each product, namely, the mean of the maximal and the mean of the minimal prices. In order to facilitate comparison and to trace with greater ease the varying price trends it was necessary in preparing Table I. to employ the arithmetical mean of the two prices where shown and thus arrive at the single figure now given for each year and product during the period. Although it cannot be claimed that the mean of the maximal and minimal annual prices strictly represents the true average, any deviation therefrom would be confined within narrow limits, and, for present purposes, would not be likely to affect appreciably the truth or value of any comparisons or inferences here made. The official prices published since 1881 show an average annual figure.

A cursory glance at Table I. will indicate that throughout the long period from 1840 to 1913 the prices of all the products included, with the single exception of wheat, increased relatively to wholesale prices in general as measured by the Statist-Sauerbeck Index Number. A more detailed examination will reveal that up to the early fifties (1850-51) the actual prices of eight or nine of the fourteen products listed fell substantially, and that in the case of two of the remaining products only—potatoes and store cattle 2-3 years old—is any marked rise noticeable. During this period general prices fell in the ratio of 100 to 72, but the fall in agricultural prices, although very considerable in a few instances, was, in the aggregate, proportionately less. It is also important to observe that the prices of the tillage products—wheat, oats, barley, potatoes, flax—maintained their position relatively to the prices of the animals and animal products.

During the two decades between the early fifties and early seventies both agricultural prices and general prices tended to rise, and although the increase in general prices amounted to as much as 50 per cent. between 1851 and 1873, the prices of certain agricultural products rose proportionately much more. Taking the prices in 1851 at 100 in each case, the following table indicates the relative prices in 1873 :—

[TABLE II.

TABLE II.

(Prices in 1851 = 100 in each case.)

GENERAL PRICES	150	Pork	150
Wheat	149	Wool	181
Oats	122	Eggs	171
Barley	94*	Beef	200
Hay	300	Mutton	166
Potatoes	128	Store Cattle—	
Flax	134	1-2 years	229
Butter	177	2-3 years	170

*The price returned for barley in 1873 was abnormally low for the period (see Table I.). The average for the quinquennium, 1871-75, would be represented by 143 as against 94 for the single year, 1873.

It will be seen that the price tendencies between 1851 and 1873 were substantially different from those that existed during the preceding decade and that prices moved markedly in favour of animals and animal products and against the products of the plough.

The agricultural statistics show that between 1847 and 1851 the area of ploughed land in Ireland increased by 513,000 acres, but it is not safe to base any very sweeping conclusions upon this fact, as no figures of areas for earlier years are available, and the possibility cannot be ruled out that the area under tillage in 1847 and the years immediately following was abnormally low for that period as a result of the catastrophe of 1846. The peak point for tillage in Ireland within the period of statistical record was attained in the year 1851 with 4,613,000 acres, dug or ploughed. In 1873 the area had fallen to 3,432,000 acres.

There can be no reasonable doubt that the price situation disclosed in Table II. had a very intimate bearing upon the great decline in tillage during this period.

From 1873 to 1896 agricultural prices and general prices fell together. The following table represents the price situation in the latter year as compared with former:—

TABLE III.

(Prices in 1873 = 100 in each case.)

GENERAL PRICES	55	Pork	68
Wheat	57	Wool	53
Oats	93	Eggs	120
Barley	121*	Beef	63
Hay	73	Mutton	75
Potatoes	60	Store Cattle—	
Flax	55	1-2 years	91
Butter	65	2-3 years	92

*See note to Table II.

It will be seen that the animals and animal products, relatively to tillage crops, not only maintained but enhanced the favourable price position they had reached by 1873. The disparity, however, between the price trends in the two groups of activities is not so pronounced in this as in the preceding period, and it is interesting to note that although the decline in tillage continued it amounted to the lower figure of 792,000 acres for the 23 year period, 1873-96, as against 1,181,000 acres for the 22 year period, 1851-73.

One feature alike common to the two periods is that agricultural prices tended to rise relatively to general prices and that this tendency was much more pronounced in the case of the animals and animal products than in that of the tillage products.

Throughout the whole of the period from 1896 to 1913 both agricultural and general prices once more tended to rise. The following table indicates the position in 1913 compared with 1896 :—

TABLE IV.

(Prices in 1896 = 100 in each case.)

GENERAL PRICES ...	139	Pork	178
Wheat	118	Wool	133
Oats	119	Eggs	147
Barley	115	Beef	119
Hay	115	Mutton	122
Potatoes	178	Store Cattle—	
Flax	153	1-2 years	147
Butter	115	2-3 years	133

During the period 1896-1913 the tendency, strongly marked throughout the earlier periods under review, for agricultural prices to rise relatively to general prices, is seen to have weakened, and the prices even of several animal products failed to keep pace with the advance in general prices. All the cereals, hay, butter, wool, beef, mutton, store cattle, 2-3 years, lagged behind. Therefore this altered price tendency which is only now beginning to attract the attention of farmers is not of such very recent origin as many may feel disposed to think. It can be clearly discerned in the price trends of many agricultural products during the 20-year period prior to the outbreak of the European War.

The following table shows the price situation in 1917 and 1925 respectively as compared with 1913 :—

[TABLE V.

TABLE V.

(Prices in 1913 = 100 in every case.)

	1917.	1925.		1917.	1925.
GENERAL PRICES	206	160	Pork ...	197	152
Wheat ...	219	179	Wool ...	150	105
Oats ...	254	143	Eggs ...	224	176
Barley ...	213	125	Beef ...	200	142
Hay ...	183	151	Mutton ...	165	169
Potatoes ...	200	140	Store Cattle—		
Flax ...	368	188	1-2 years ...	172	144
Butter ...	197	173	2-3 years ...	182	143

Examining first the figures for the year 1917 it is seen that tillage and dairy products, generally speaking, had advanced in price relatively to animals and other animal products. This tendency was maintained up to and including the year 1920 (see Table I.). The stimulus to increased tillage during the war and the few years immediately succeeding would appear, therefore, to have emanated to a great extent from the comparative advance in the prices of the tillage products. The compulsory tillage schemes of the Department of Agriculture operated as another powerful stimulus; and, in addition, the farmer was greatly aided in his efforts by the facilities with which he was provided under the Department's various schemes for obtaining agricultural equipment, including seeds, manures, implements and machinery. Nevertheless, the basic factor in the situation was the price trend favouring tillage operative during the years 1914-1920. It must also be borne in mind that advancing prices such as those experienced during this period are always a boon to the farmer and tend to quicken his activities, especially in the direction of more intensive agriculture. Falling prices, on the other hand, have the reverse effect: it has been well said that "high farming is no remedy for low prices." The recent British Committee in their *Report on the Stabilisation of Agricultural Prices* state that "a further consequence of a falling price level is the laying down of arable land to grass."

The area under tillage in Ireland increased from 2,327,000 acres in 1914 to 3,239,000 in 1918—a great achievement within so short a period—but the advance thus made has again been completely lost; the area under the plough in 1925 amounts only to 2,154,000 acres.

Next, examining the figures for the year 1925, it will be observed that most of the products listed have lagged behind general (wholesale) prices. The real significance of this new

price tendency can only be fully realised by remembering that: (1) throughout the whole of the period since 1840 agricultural prices have advanced relatively far more than general prices; (2) about the year 1896 this relative gain attained its maximum; (3) from 1896 to 1913 the price tendency favouring agricultural products weakened, and the price of many of these products did not keep pace with the advance in wholesale prices; (4) in the period 1920-1925 the lagging behind of agricultural as compared with general prices became further accentuated. Confronted with this adverse tendency, it is poor consolation to the farmer of to-day to know that, on the whole, prices are relatively more favourable to him than they were to his predecessor of eighty or ninety years ago.

Moreover, the wholesale price index does not afford the truest measure of the extent to which a farmer's position in the market may be affected; he sells at the agricultural prices discussed in this paper but buys his requirements of shop goods at retail prices. The latter are known to have risen relatively to wholesale prices during recent years. The Saorstat cost of living figure is the closest available measure of the advance in retail prices in this country, and it shows an increase at the beginning of 1926 as compared with July, 1914, of 88 per cent.; the advance in wholesale prices (Statist-Sauerbeck) between 1913 and 1925 is only 60 per cent. Taking even the latter and more favourable figure as the criterion, it indicates that the farmer's position in the price arena, as may be seen from Table V., is now considerably worsened as compared with his position in 1913.

In surveying the agricultural price situation in its broader aspects since 1840, it was possible to trace at least a statistical concurrence between certain tendencies in prices and certain tendencies in agricultural production. It is now proposed to review briefly the variations in the prices of the leading agricultural products since the forties and to seek for any light which these variations may shed upon the farmer's activities.

It is here necessary to observe that average annual prices are usually compiled for the calendar year and that in the case of certain agricultural products whose prices are greatly influenced by the yield of the harvest, such prices may not represent with sufficient accuracy the position during the twelve months period within which a crop is usually harvested and consumed. The twelve months period of harvest and consumption in the case of the potato, for example, would be July-June; there is very wide fluctuation in the yield from year to year and correspondingly wide fluctuations in the annual price. By taking an average price for the year January-December, it is

quite obvious that a set of figures may be obtained, tending to fluctuate within limits narrower than those of a twelve months' average for the year July-June. It is possible to compile from the official statistics average annual prices for the crop year as distinct from the calendar year, but comparability with the unofficial price statistics for the period prior to 1881 would probably be lost in the process. Moreover, it is only in the case of a few crops, such as potatoes and hay, that prices are local in character and largely influenced by the yield and quality of the produce annually. Prices of cereals, flax and animal products are governed far more by world conditions than by domestic production.

It is also necessary to bear in mind that the farmer is influenced in his activities by prices of particular agricultural products only in so far as he grows such products for market. There are no very recent statistics showing to what extent the various tillage products are disposed of by sale in Ireland, but the following table based upon figures published in the *Agricultural Output of Ireland, 1908*, represents the position then as far as the principal crops are concerned, and may be taken to a large extent as reflecting it still.

TABLE VI.

Table showing the manner in which each of the chief tillage products was disposed of in the year 1908 and the proportions (by values) disposed of in each way.

	Total Value of Crop.	Proportions (by value) used as stated.		
		Fed to Live Stock or used as Seeds on Farms.	Consumed by Farmers and their Families.	Sold for Home Consumption or for Export.
(1)	(2)	(3)	(4)	(5)
Wheat	100	8·4	43·6	48·0
Oats	100	73·3	2·4	24·3
Barley	100	29·2	—	70·8
Hay and Straw	100	94·1	—	5·9
Potatoes	100	68·3	13·2	18·5
Flax	100	—	—	100·0

Out of the six leading vegetable crops grown in 1908 the proportions of the produce sold for cash (apart from any quantities sold by one farmer to another for use or consumption on farms) exceeded thirty per cent. in the case of three, namely,

wheat, barley and flax. Consequently, the stimulus to production in the case of the other three crops, oats, potatoes and hay, which constitute by far the more important of the two groups, as well as in the case of other crops used mainly for fodder, such as turnips, mangles and coarse cabbage, cannot be to any appreciable extent the prevalent market price.

The produce of the flax crop is wholly, and that of barley to a large extent, marketed. Formerly, no doubt, when wheat was extensively grown in this country the produce was mostly marketed, and even still, despite the smallness of the area now devoted to the crop, almost half the produce is so disposed of.

Flax.

Great significance attaches to the flax crop in relation to prices owing to the fact that the produce is wholly marketed, and, therefore, since the inducement to production is wholly the market price, the area devoted to the crop may reasonably be expected to change in concordance with changing prices.

The maximum Irish flax area on record was planted during the sixties of the last century, when, owing to the interruption of raw cotton supplies from the United States, the linen industry of the North of Ireland flourished exceedingly. As may be seen by reference to Table I., very high prices for flax prevailed during this period. The largest area recorded for any single year since 1847 (302,000 acres) was planted in 1864. Prices fell considerably during the late eighties and the first two years of the nineties, and areas followed suit. In 1893 the price recovered sharply, and was followed in 1894 by a sharp recovery in the area to 101,000 acres, from 67,000 in the preceding year. Prices fell to a very low level during the years 1895-98, to be followed during the years 1896-99 by a remarkable falling off in the area. The lowest and second lowest prices on record prevailed during the years 1896 and 1897, and the lowest and second lowest areas on record (with a single exception to be referred to later) were planted during the years 1898 and 1899. During this period prices generally reached the lowest level recorded during the nineteenth century, but, even so, it will be seen by again referring to Table I. that flax prices were abnormally low when compared with those of the other leading agricultural products. Prices recovered to a new high peak in 1900 and the area to a new high peak in 1901; prices fell to a fresh low level in 1903 and areas to a fresh low level in 1904. The low price of 1908 was followed by the low area of 1909; the high price of 1910 by the high area of 1911; and the low price of 1913 by the low area of 1914. During the war

years the price of flax rose to a higher level, comparatively, than that of any other agricultural product (see Table I.), and the area increased from 49,000 acres in 1914 to 143,000 in 1918. A fresh falling off in price was experienced during the end of 1920 and beginning of 1921; the monthly average, which was as high as 40/- per stone in August, 1920, fell to 11/10 in April, 1921. Thus the farmer became apprised of the altered price situation before the planting of the latter year's crop. The result may be seen in the falling off in the area from 127,000 acres in 1920 to 40,000 acres in 1921. The area in 1922 (34,032 acres) was the lowest on record, being some hundreds of acres less than the very low areas returned for the years 1898 and 1899. A moderate recovery in areas has taken place during the past few years, apparently in response to the slightly improved prices prevailing in 1922, '23 and '24 as compared with those of 1921.

The statistical record of the flax crop is specially important because of the proof it affords of the speedy adjustment of the farmers' activities to changing prices where production takes place solely with a view to direct sale. In the case of no other crop or product, however, can the nice adjustment of effort to price be so readily measured because either the product is not wholly marketed and therefore the inducement to production is not wholly its market price, or, as in the case of store cattle, the farmer's commitments are such as to prevent his making any speedy readjustment in response to short-period price fluctuations. All the available statistical evidence, however, tends to confirm the view that in the long run he is not less responsive to price movements in other directions than in the case of flax-growing, provided, as already pointed out, that direct sale is the object of production.

Wheat.

The price of wheat has lagged behind that of every other agricultural product, and has now fallen so low that minor fluctuations therein scarcely affect at all the area devoted to the crop. In the forties and fifties when prices were comparatively high the area was very considerable, amounting in 1847 to 744,000 acres as against 34,000 in 1913 and 26,000 in 1925. In the forties and fifties the farmer's responsiveness to price changes can be readily discerned. For example, prices fell between 1846 and 1852 in the ratio of 131 to 76 and the area from 744,000 acres in 1847 to 327,000 in 1853. Prices were high between 1852 and 1856, and the area recovered to 560,000 acres in 1857; prices reached a very low level during the years 1862-64 and the area fell from 401,000 acres in 1861 to 267,000

in 1865. The area again increased during the late sixties, no doubt in response to the recovery in prices observable during that period; but thence onward prices tumbled down, and the wheat grower had perforce to transfer his activities to other and more remunerative forms of agricultural production.

Barley and Oats.

Barley is another crop grown to a considerable extent for cash. Prices have remained high relatively to those of wheat, but have fallen in comparison with those of all the other vegetable crops. It is therefore interesting to note that the area has been better maintained than in the case either of oats or potatoes. The comparison, however, has but little relevancy since the two latter crops, as may be seen by reference to Table VI., are grown only to a very limited extent for direct sale. Moreover, it is not improbable that the barley grower may be restricted in his choice of alternative crops or activities by his own economic circumstances or by the special suitability of his land for this particular crop or its comparative limitations for other agricultural purposes. It must, however, be admitted that the movement of prices has run strongly against the barley-grower, and if it persists much longer it would not be a very rash prophecy to foretell that he too must abandon an unremunerative branch of agriculture, as the wheat grower has already all but done. It is significant in this sense that the second smallest area on record (148,000 acres) was grown last year, the smallest being 142,000 in 1915.

The area under oats is far larger than that devoted to either wheat or barley. Owing to the comparatively small proportion of the crop grown for market it is obviously not possible to trace any very intimate relation between the area and the price. The miximum area on record (2,283,000 acres) was planted in 1852 and the smallest (993,000) in 1925.

Potatoes.

No other crop has varied so much in market price from year to year as the potato. This variation is due to the great differences in the annual yields. High prices prevailed in all the notoriously bad potato years, *e.g.*, 1846, 1860, 1872, 1879, 1898, 1903; and low prices in the good years, *e.g.*, 1874-76, 1887, 1901-2. It must also be observed that the full effect of a deficient potato crop would not, for reasons already explained, be adequately reflected in average annual prices such as those shown in Table I., which relate to the calendar year rather than the crop year.

Potato prices ever since the famine have, on a broad average, been at least 100 per cent. higher than those recorded for the years 1840 and 1845. This fact is all the more remarkable since the general price level for all commodities between 1840 and 1913 was usually lower, and for long periods very much lower, than in 1840. Dr. Hancock, writing in 1863 (*Report on the Supposed Progressive Decline of Irish Prosperity*, Dublin, 1863), observes that: "I have been informed by persons of great experience that the produce of potatoes per acre has never since the famine at all equalled what it was before 1846, being on an average about one-half." It would seem as if the diminished productiveness of the potato since 1846 has had a permanent effect upon the price. The maximum area within the period of statistical record was planted in the year 1859, namely, 1,200,000 acres; and the minimum area, 535,000 acres, in 1925. This falling off must be attributed in part to the decline in numbers of the population and in part to the change in the dietary of the people from potatoes to breadstuffs, but undoubtedly there are also other causes. The following table shows the tendency in potato cultivation in different countries over long periods:—

TABLE VII.

Country.	Area under Potatoes (1,000 acres). *	1913.
(1)	(2) Acres.	(3) Acres.
Ireland (1859) ...	1,200	582
Great Britain (1871) ...	628	591
Denmark (1871) ...	106	173
Belgium (1855) ...	371	395
Norway (1865) ...	79	101
Holland (av. 1850-1855)	237	421
Sweden (1865) ...	316	376
German Empire (1878)	6,815	8,431
France (1850) ...	2,303	3,825
United States (1875) ...	1,510	3,667

* Year shown in brackets in col. (1).

It will be seen that the tendency generally outside the British Islands is to increase the area under this crop; in Great Britain there has been a slight decline since 1871. The falling off in the case of Ireland stands alone in its unenviable magnitude. Another interesting feature which the table reveals is

that towards the middle of the nineteenth century potato cultivation was developed in Ireland to a far greater extent, comparatively, than in other countries. When it is borne in mind that the cultivation of the potato necessitates one of the most intensive processes of tillage known in agriculture; that it must be a manured crop; that the use of artificial fertilisers was almost unknown in Ireland until well into the second half of the nineteenth century; that owing to the paucity in the number of farm animals kept as compared with the present time there was necessarily a dearth of farmyard manure; that spade cultivation was then almost universal—the magnitude of the Irish potato cultivator's achievement towards the middle of the nineteenth century stands out uniquely in the annals of agriculture. It is probably correct to state that the cultivators of that period have never received from their fellow-countrymen the meed of appreciation which that great effort merits.

Hay.

Although the price of hay shows considerable fluctuations from year to year it has not risen at all to the same extent as that of potatoes. It may appear strange, therefore, that the area under the crop—if hay can be elevated to the dignity of a crop—should increase from 1,139,000 acres in 1847 to 2,743,000 acres at present, whilst during the same period the area under potatoes has declined to the extent already indicated. Here, again, the crop is not produced to any appreciable extent for market, and it is only when the prices of cattle and dairy products are reviewed that some light is shed upon the inducements to increase the acreage under hay.

Pork.

The intimate relation between pork prices and the numbers of pigs kept was recently pointed out in an article contributed by the Statistics Branch to the last December issue of the *Irish Trade Journal.* It is stated therein that "in no less than twenty-three out of the thirty-one years from 1881 to 1913 a rise or fall in pork prices in any twelve months was followed by a rise or fall, respectively, in the number of pigs in the following twelve months." When it is borne in mind that the pig is produced mainly for market it is only natural indeed that supplies should be largely governed by prices.

The table below shows the average monthly prices for pork and for bonhams in each of the last three years.

TABLE VIII.

Average monthly prices of young pigs (8 to 10 weeks old) and of pork in each month during the years 1923, 1924 and 1925.

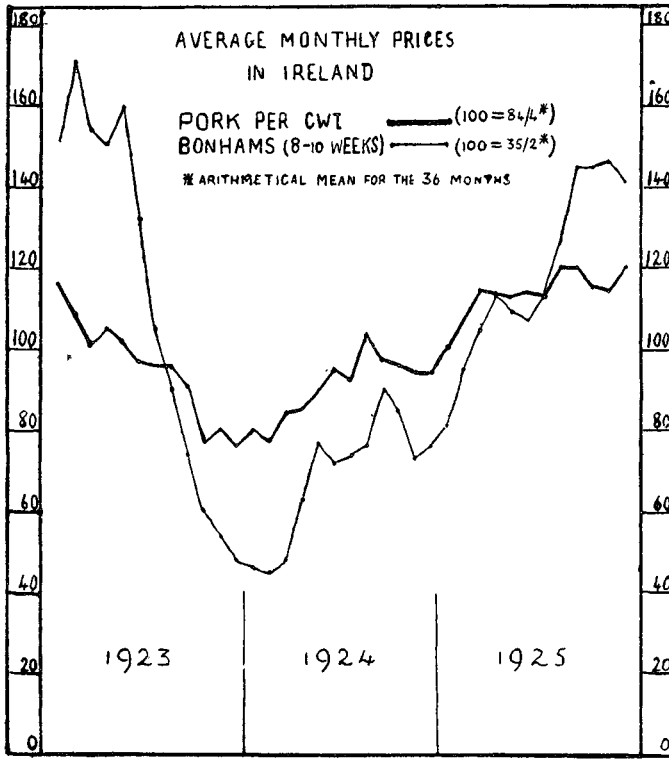
	1923.						1924.						1925.					
	Young Pigs (each)			Pork (per cwt.)			Young Pigs (each)			Pork (per cwt.)			Young Pigs (each)			Pork (per cwt.)		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
January	2	13	3	4	18	0	0	16	3	3	7	6	1	8	6	4	4	3
February	3	0	0	4	11	0	0	15	9	3	5	0	1	13	6	4	10	0
March	2	14	3	4	5	6	0	16	9	3	10	6	1	17	0	4	17	3
April	2	12	9	4	8	6	1	2	3	3	12	0	1	19	9	4	16	6
May	2	16	3	4	6	0	1	7	0	3	16	0	1	18	6	4	15	3
June	2	6	6	4	1	6	1	5	3	4	0	6	1	17	6	4	16	6
July	1	17	0	4	1	0	1	6	0	3	18	0	1	19	9	4	15	0
August	1	11	6	4	1	0	1	6	9	4	7	6	2	4	9	5	1	3
September	1	6	0	3	16	6	1	11	9	4	2	0	2	11	0	5	1	6
October	1	1	3	3	5	0	1	9	9	4	1	0	2	11	0	4	16	9
November	0	19	0	3	7	6	1	5	9	3	19	6	2	11	6	4	16	0
December	0	17	0	3	4	6	1	6	9	3	19	6	2	9	9	5	1	3

A glance at the table will suffice to show that when the price of pork is high the price of young pigs also is high, and that the two prices rise and fall simultaneously or subject to a lag of a month or so in the price of bonhams behind that of pork. The position is graphically represented in the accompanying diagram, which is based upon the comparative variation shown in the respective prices, the average price for the three-year period in each case being taken as equal to 100.

The diagram shows that a given percentage change upwards or downwards in the price of pork was accompanied or followed immediately by a greater percentage change in the same direction in the price of young pigs. When the price of pork was relatively high, as in the early part of 1923, the price of young pigs, proportionately, was still higher. Between January and December of that year pork prices fell by 34 per cent. and the price of bonhams by no less than 68 per cent. Very low prices prevailed both for pork and young pigs in February, 1924; by December, 1925, pork had again risen by 56 per cent., to be accompanied by a rise in the price of bonhams amounting to as much as 216 per cent. The situation here disclosed should put on their mettle those directely interested in maintaining the supply of pigs to pay the largest possible price for the finished animal, because any fall in this

price reacts with greater severity upon the price of the bonham and hence the inducement to produce the young animal rapidly disappears.

DIAGRAM I.



BUTTER, BEEF AND STORE CATTLE.

These prices are economically interdependent, as least so far as concerns many of their effects, and they are therefore best reviewed together. Butter prices have risen in much the same proportion as beef prices, but much less than store cattle prices. The increase in the price of store cattle constitutes one of the outstanding features of the price situation as revealed in Table I. Since 1840 they have risen in the ratio of 100 to 440 or by 340 per cent., whilst in the same interval wheat has risen by 18 per cent. only; oats by 72 per cent., barley, 40; hay, 89; potatoes, 234; flax, 137; butter, 89; pork, 160; wool, 14. Only

one agricultural product, namely, eggs, has outpaced store cattle in price, and egg production does not compete with cattle-rearing as a farming activity. Moreover, store cattle, unlike potatoes and hay, are produced wholly for market, and the farmer's activities, as already pointed out in the case of other products similarly disposed of, must react immediately to price changes affecting these animals. Ever since the forties the trend of prices has favoured the production of store cattle, and the following table shows how the farmer has responded to the inducement thus held out to him :—

TABLE IX.

Number of Cattle in Ireland.

(000 omitted.)

Year.	Under one year old.	One to two years old.	Two years old and over.	Milch Cows.
(1)	(2)	(3)	(4)	(5)
1850	503	594	—	1,626*
1860	580	624	775	1,545
1870	772	704	795	1,529
1880	841	819	864	1,398
1890	1,023	900	917	1,401
1900	1,086	1,034	1,031	1,458
1910	1,111	1,014	976	1,557†
1920	1,196	1,109	1,095	1,577†

* In 1854

† Specifically include "heifers in calf."

The numbers shown in column (2) are immensely significant because they represent the growing tendency to rear the calf rather than to slaughter it for veal. By reference to the figures in column (5) it will be seen that the increase in the numbers of young animals cannot be attributed to any increase in the size of the parent herd.

The farmer keeps milch cows for one or more of the following reasons :—

(*a*) To provide himself and his family with milk and butter.

(*b*) To provide milk for sale.

(*c*) To produce butter for sale.

(*d*) To produce young cattle for sale.

The force of these motives, particularly of (*b*), (*c*) and (*d*), will vary according to circumstances, but every such variation is fraught with its own economic consequences. The

motive to produce young cattle does not appear to have been very strong towards the middle of the nineteenth century, and hence reason (*a*) or (*b*) or (*c*) or any two or the three of them collectively would have operated with relatively greater force than (*d*). As the price of young cattle increases relatively to other products of the dairy herd it is obvious that reason (*d*) will gain in importance relatively to the others specified, and the farmer will respond by increasing the numbers of his young cattle. There is indeed no conflict with (*a*), (*b*) and (*c*) in the attainment of (*d*) unless and until the increased rearing of young stock, which require the same kind of keep as milch cows, compels the farmer to limit the latter with a view to an expansion of the numbers of store cattle carried. But the farmer has another way out of his dilemma, namely, to discontinue those other branches of agricultural production which he finds are becoming relatively less profitable than the rearing of store cattle. He may decide progressively to divert to meadow and pasture portions of his land hitherto devoted to wheat or oats or barley or potatoes, and thereby increase his capacity to rear store cattle without necessarily sacrificing or diminishing his dairy herd. There is indeed nothing very abstruse either in the problem as it has confronted the farmer or in the manner in which he has dealt with it. The abundant statistical data in the matter speak for themselves.

It is quite clear that the motives which actuate the farmer in keeping milch cows have varied radically in force since the forties; then the production of young cattle might well have been a minor consideration, whilst now it may be one of the first importance. If this should happen to be the case it is apparent that a new light is shed upon the question so often asked, namely, why the Irish farmer has failed to develop the dairying industry, or, in other words, failed to increase the number of milch cows in the country and to improve their milk and butter-producing qualities as farmers in other countries have done. The numerous critics of the Irish farmer never consider it necessary to enquire how it has happened that he has succeeded in developing the rearing of young cattle to an extent altogether unequalled in any country of the old world; nor pause to ask themselves the question whether the rearing of young cattle on such a scale is inconsistent with or inimical to the full development of other branches of agriculture.

The following table shows the numbers of " other cattle " per 100 milch cows in different countries in 1924 and the numbers of milch cows at different periods since 1860.

TABLE X.

Country.	Number of Dairy Cattle. (000 omitted)				No. of "other cattle" per 100 Dairy Cattle. (1924)
	1860.	1880.	1900.	1924.	
Ireland	1,626	1,398	1,458	1,636[5]	207
Great Britain	2,038[1]	2,242	2,621	3,112	127
Denmark	777[2]	898[3]	1,011[4]	1,369[5]	64
Holland	896[6]	911[7]	964[8]	1,086[9]	90[9]
Belgium	681[10]	754	828	839	81
France	6,400	6,587	7,820	7,431	89
United States	8,586	12,443	17,136	25,319	156
Australia	—	—	1,188	2,305[11]	479[11]
New Zealand	—	—	381	1,313	172

[1]1867. [2]1861. [3]1881. [4]1903. [5]In-calf heifers specifically included. [6]Av. 1866-70. [7]Av. 1871-80. [8]1901. [9]1921. [10]1846. [11]1923.

It will be seen that in numbers of " other cattle " relatively to milch cows Ireland occupies on enviable or unenviable position according to the point of view, and that she seems quite alone in her failure to increase appreciably the size of her dairy herd within the past sixty years. The figures point strongly to the conclusion that the production of milk and butter cannot be the predominant motive influencing the Irish farmer in regard to the numbers of milch cows now kept, but that rather the production of young animals is the governing factor in the situation. In Denmark, Holland, Belgium, France, and even Great Britain the comparative paucity of " other cattle " relatively to milch cows suggests that butter, cheese and milk production is a predominant motive underlying the maintenance and increase of dairy herds in these countries. If there is such a divergency of objective between the farmer in the countries mentioned and the Irish farmer, a whole train of far-reaching consequences must necessarily ensue. A man employed in a dual capacity will usually strive after the greater efficiency in the avocation which brings him or is likely to bring him the larger return. A farmer is a man employed in manifold capacities, many of which tend to become mutually inconsistent and destructive. He will naturally devote his energy and ability in greater measure to the objective which proves most attractive, whether it

be dairying or cattle rearing or tillage, and in so far as these objectives are in conflict the less attractive must suffer neglect. In Denmark or Holland or Belgium dairying may be an objective of primary importance and cattle rearing for beef a secondary one; in these countries, therefore, the farmer *qua* dairyman is likely to be more efficient than the farmer *qua* cattleman; in Ireland, on the other hand, cattle rearing for beef production may now be a farming objective of primary importance and cattle rearing for milk and butter production one of secondary importance only, and in this case the achievements of the Irish farmer *qua* dairyman cannot in reason be expected to rank as high as those of the Dane, the Dutchman or Belgian, but must be expected to rank higher in the domain of cattle production for beef. The Danish as compared with the Irish cow is reputed a more efficient milk producer, but nothing derogatory to the capacity of the Irish farmer is proven by this fact; it is necessary also to show that the Danish as compared with the Irish calf is a more efficient beef producer before even a suggestion based upon such data, regarding the comparative inefficiency of the Irish farmer, can be made to rest upon reputable evidence.

To many it might appear strange that whilst the price of beef between 1840 and 1925 has risen only in the ratio of 100 to 183, that of store cattle increased in the ratio of 100 to about 420. The price of beef, however, must to a large extent, govern the price of store cattle, and if the one price has outpaced the other some factor or factors must have arisen in the meantime affecting differentially, and in a sense favourable to the producer, the price of store cattle. There is every reason to believe that, in fact, a number of such factors have come into play. The prices of beef upon which the figures shown in column (12) of Table I. are based were those prevailing in Dublin, but the prices of store cattle similarly employed in columns (14) and (15) are the averages of those paid at fairs throughout the country. The development since the forties of rail transport in Ireland and the improvement of steam transport between Ireland and Great Britain have, in effect, brought the Irish cattle producer nearer to his market and thus eliminated or reduced many of the costs and difficulties incidental to the cross-Channel traffic in live cattle in the old days. The farmer would gain all or most of the advantages secured in this manner, and the gain would manifest itself in the enhanced prices paid for store cattle, even assuming the price of beef to remain constant. But the price of beef has also advanced. In reviewing the prices of pork and young pigs it has been shown that a given advance in the price of the finished animal or product

(pork) admits of and indeed inevitably leads to a greater percentage advance in the price of the young animal; there is no reason to doubt that the same price relation subsits as between beef and store cattle. Another factor may be an improvement effected since 1840 in the breed or beef-producing qualities of the young cattle. Finally, any cheapening of feeding stuffs, especially of those fed during the final stages of fattening, would operate as a further differential factor tending to increase the price of stores relatively to beef.

Eggs.

Eggs have risen in price relatively to every other Irish agricultural product and have advanced enormously compared with prices in general as measured by the Statist-Sauerbeck Index Number. The accompanying diagram illustrates the price trends for eggs and for wheat as compared with that for general prices. It shows clearly how it has happened that egg production has become steadily more profitble and how comparatively unattractive is wheat growing.

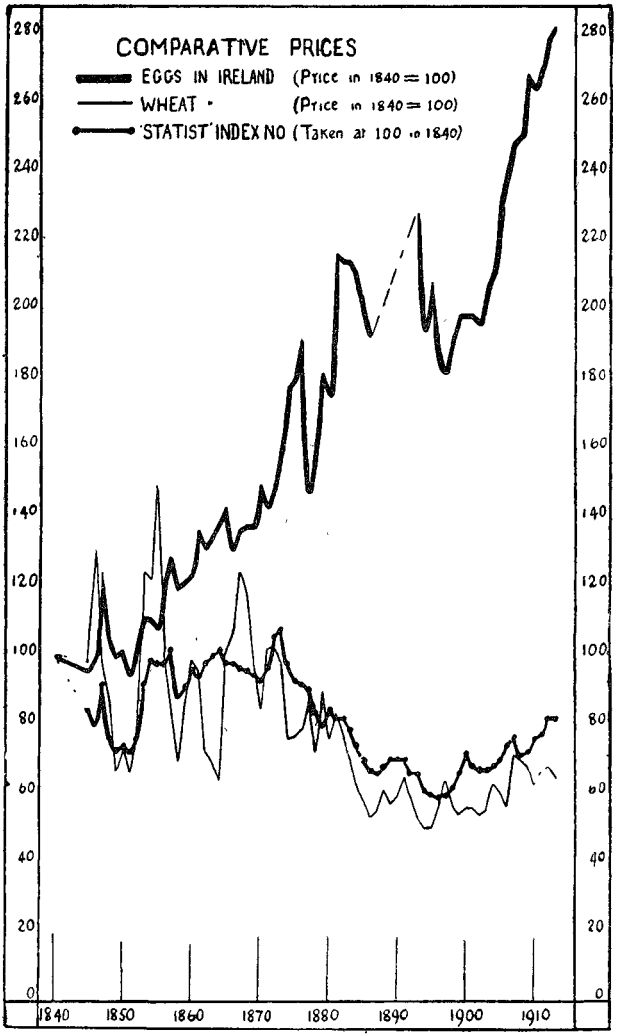
Here, again, the ready response of the farmer to a favourable price trend can be traced. The numbers of poultry returned for Ireland in the late forties and early fifties were round about six millions; in 1925 the corresponding figure was twenty-four millions. Part of this increase is indeed due to the fact that the net of the statistical enumerators is now more carefully drawn, but after every allowance is made for any possible discrepancy attributable to this cause, the fact remains unquestionable that the numbers of poultry in the country have been greatly increased in response to the progressive advance in the price of eggs. It is specially interesting to note that prices in recent years as compared with 1913 have been much better maintained than those of most of the other agricultural products listed, not excepting even store cattle. (See Table V.)

Mutton and Wool.

Ever since the forties and particularly since the eighties the price of wool has tended below that of every other product, with the single exception of wheat. The price of wool, therefore, offers no very strong inducement to the sheep farmer. On the other hand, the price of mutton has tended to rise throughout the whole of the period since 1840 relatively to the price of beef. Since 1922 this tendency has become very marked, and, should it continue, a recovery in the size of the flock may reasonably be anticipated. Already the statistics for 1925 show

an increase in numbers to 3,297,000 from 3,235,000 in the previous year, a fact which shows that the sheep farmer is not unresponsive to a favourable price trend.

DIAGRAM II.



SEASONAL PRICE VARIATIONS.

Variations in agricultural prices may be classed under four distinct headings, namely :—

(1) An upward or a downward trend as compared with the course of general prices.

(2) An upward or a downward movement in the course of actual prices.

(3) Annual fluctuations due mainly to variations in harvest yields at home and abroad.

(4) Seasonal variations due to the seasonal character of many types of agricultural production coupled with variability in the keeping qualities of the products.

Variations (1), (2) and (3) have already been repeatedly exemplified. Seasonal variations still remain to be considered, but it is impossible, having regard to the inevitable limitations of a paper such as this, to deal with them comprehensively.

Seasonal fluctuations in the price of butter, however, merit special attention at the present time. Probably it would not be too rash to assert that for centuries, indeed it may be so since butter was first brought to market in Ireland, prices in winter have been higher than in summer. In the Board of Trade Return already referred to June and December prices at Cork for Irish mild-cured butter are given for each year from 1862 to 1902, and in not a single instance is the summer price as high as the preceding or succeeding winter price. The average June price over the whole period of forty-one years for the best quality Irish mild-cured butter is 97/6 per cwt., and the average December price 128/2, or 31 per cent. more. Throughout the period from 1900 to 1913 the same price features are without exception revealed each year in the official statistics. During the world war and the few years immediately following seasonal fluctuations were practically submerged by the rapid advance in prices, but again towards the end of 1921 prices attained a new level of equilibrium which, broadly speaking, they have maintained ever since. In 1922, for what may have been the first time in the history of the country under reasonably stable price conditions as described, the winter price of butter fell below the summer price. The usual seasonal movements reasserted themselves in 1923 and 1924, but again in 1925 the winter price has fallen below the summer price.

The explanation of this novel feature in the butter price situation is to be found in the rapid development during recent years of the dairying industry of countries in the Southern hemisphere, notably Australia, New Zealand and the Argentine

Republic, whose summer season and therefore period of maximum butter production corresponds to our winter season and period of minimum butter production.

The table below shows the quantities of butter imported into Great Britain and Northern Ireland from the principal sources of external supply in the months of August and December, 1925 :—

TABLE XI.

Country whence imported.	Quantity Imported. August, 1925. cwt.	December, 1925. cwt.
Irish Free State ...	61,166	17,390
Denmark	142,343	172,382
The Argentine	20,134	63,859
Australia	15,833	122,322
New Zealand	21,399	65,204

The following were the London mid-month quotations as reported in the *Statist* in September and December, 1922 and 1925, respectively, for Danish butter :—

	1922. per cwt.	1925. per cwt.
September ...	225/- to 227/- ...	220/- to 224/-
December ...	202/- to 212/- ...	188/- to 190/-

Thus, the prices in the two years 1922 and 1925 were lower in the season during which butter is produced in the Northern hemisphere with the maximum of expense than in the season when produced at the minimum expense.

The following table indicates how the dairy herds in Australia, New Zealand and the Argentine have increased in numbers in recent years :—

TABLE XII.

	Numbers of Dairy Cows. 1919.	1923.
Australia ...	1,909,000 ...	2,305,000
New Zealand ...	826,000 ...	1,249,000
The Argentine ...	2,378,000* ...	3,295,000

* In 1918.

When it is recalled that Irish farmers have scarcely increased at all the numbers of their milch cows in a period of 70 years the magnitude of the achievement of Australia and New Zealand where the herds have been increased by 400,000 animals in each case within the period of four years ending with 1923 can be appreciated; but this achievement is entirely

eclipsed by Argentina, which has increased the dairy herd from 2,378,000 to 3,295,000 in the period 1918-23. To what lengths this growing tendency in the agricultural systems of certain countries in the Southern hemisphere may still run it is obviously difficult to foretell, but no one can doubt the possibility of further great expansion if the prices for butter in importing countries remain attractive.

A further disturbing element is introduced into the situation by what appears to be the great variability of butter production in the Southern hemisphere. For example, the total butter output in Australia in 1922, evidently an unfavourable year, was 32,000,000 lbs. less than in 1921, although the dairy herd was larger in 1922 by 77,000 animals.

The winter dairying industry of Denmark appears to be gravely threatened by the development of competition in world markets from countries in the Southern hemisphere. In Ireland all the efforts hitherto to develop this industry have met with but a very poor response, and the prospects for the future appear to be freshly overshadowed by the price situation described. It might indeed be asserted with every show of reason that never in the recent history of Irish agriculture were the prospects of winter dairying less hopeful than at present.

When it is borne in mind that all agricultural products are subject in some degree to seasonal price variations and that in the case of no two of them can it be asserted that these variations would be entirely the same or the factors governing them entirely similar, one realises the comprehensive character of any adequate review of this aspect of Irish agricultural prices.

International Price Trends.

Whilst the prices of grain appear to have been systematically collected for most countries for a lengthened period, those of other products are not so readily available, and, where available, comparison is sometimes difficult. It has already been shown in the case of Ireland that the price trend favoured animals and animal products and was unfavourable to cereal cultivation. If the prices only of one or the other group of these products were available it would not be possible statistically to establish an important proposition of the foregoing character. The difficulty of instituting international comparisons is further increased by the necessity of having regard to the manner in which the farmers dispose of their products, *i.e.*, the comparative proportions in which consumed on the farm or sent to market.

The Director-General of Agriculture at The Hague, who was approached for information on this subject, was good enough to furnish a number of figures, but he writes that "many of the older data are very approximate and should be appreciated merely as a hint for the movement of prices." The Chief of the Department of Statistics at Copenhagen, who was also approached, replied that "for those products for which no 'Kapitelstakster' are fixed, the Department can only refer to its trade statistics." The Danish *Kapitelstakster for Afgroden* contains official prices of the following amongst other agricultural products extending in unbroken sequence from 1821 to 1920, namely, wheat, oats, barley, rye, butter and pork. From 1921 the prices only of the four cereals are being collected. The French Agricultural Statistics show the average annual prices of the leading tillage products grown in the country mostly since the year 1840, and in the case of wheat since 1815. For England and Wales there are available the well-known "Gazette Prices" for wheat, oats and barley. From the sources indicated the following table has been prepared with the object of indicating the variable price trends in the different countries mentioned :—

TABLE XIII.

Comparative prices in the year 1913 in the different countries mentioned. (Prices in 1840 = 100 in every case).

	Ireland.	England and Wales.	Denmark.	Holland.	France.
Wheat ...	66	48	119	73	95
Oats ...	120	74	197	86	155
Barley ...	112	75	216	105	164

The figures in this table must necessarily be interpreted with a certain amount of reserve, but they at least suggest how divergent price trends for particular products might be even in neighbouring countries during any given period of time. The full significance of the divergencies indicated in this table cannot, however, be shown in the absence of statistics of the price trends of representative groups of animals and animal products in these countries at the same time. For example, the table shows that whilst in Ireland the price of wheat between 1840 and 1913 fell in the ratio of 100 to 66; in Denmark it rose in the ratio of 100 to 119; in Ireland oats rose in the ratio of 100 to 120, and in Denmark 100 to 194; in Ireland barley rose in the ratio of 100 to 112 and in Denmark in the ratio of 100 to 216. The statistics therefore show that the price trend for

cereals was relatively much more favourable to the farmer in Denmark than in Ireland, and hence no credit is due to the Danish farmer at the expense of his Irish confrere for maintaining with much greater success the area under cereals. The full effect of the contrast does not, however, end here. If, during the same period, the price of store cattle rose relatively more in Ireland than in Denmark a further factor would operate to keep the Danish farmer in tillage and to force the Irish farmer out of it. Thus the Danish and Irish farmer would be impelled along different lines of agricultural activity owing to the operation of divergent economic forces in the two countries.

A further illustration of the divergencies in price trends in different countries is afforded by the following table showing comparable agricultural prices of certain products in the United States and in Ireland respectively in the year 1924, prices in 1913 being taken as equal to 100 in every case.

TABLE XIV.

	United States. (2)	Ireland (3)
(1)		
Wheat	144·8 ...	174
Oats	136·8 ...	159
Barley	130·7 ...	176
Cattle—cows, choice to prime ...	101·2 ...	—
„ heifers	115·9 ...	—
Store Cattle—2 to 3 years ...	— ...	143
„ 1 to 2 years ...	— ...	139
Eggs	145 ...	156
Milk, fresh	153·7 ...	—
Potatoes	142·4 ...	213
Butter	166·9* ...	177

* Creamery, extra, Boston.

In this table the price relation shown in column (2) does not admit of direct comparison with that in column (3) owing to the difference in the price levels prevailing in the two countries in 1924 as compared with 1913, but the United States prices show a considerable falling off or lagging behind for cattle as compared with tillage products, whilst in the case of Ireland the same tendency is not nearly so marked. Again, the prices of dairy products—milk and butter—appear to be well maintained in the United States relatively to every other type of agricultural price, and hence the discouragement is confined to beef cattle and would not necessarily extend to milch cows. The United States agricultural statistics show that the numbers of other cattle (exclusive of milch cows) in that country de-

clined from 41,720,000 1st January, 1924, to 39,609,000 on the same date in 1925, whilst during the same period the number of milch cows increased from 24,786,000 to 25,319,000.

Needless to observe, it is impossible to deal adequately with international price comparisons within brief compass. In this paper the matter is introduced primarily because of its relevancy to the main topic under review and also because of its enormous significance. It must, however, be recognised that scarcely the fringe of the subject is touched, but it may nevertheless be claimed that sufficient statistical material has been adduced to suggest the necessity for the greatest caution in arriving at any conclusions concerning the energy, capacity or agricultural knowledge of farmers of different countries by a mere counting and contrast of the types of activities pursued or the comparative intensity of these activities. For example, the following are the comparative yields for some principal crops cultivated in the United States, Denmark and Ireland :—

TABLE XV.

Yields per hectare in quintals. (Average of 1909-13).

	United States.	Denmark.	Ireland.
Wheat ...	9·9 ...	33·1 ...	25·3
Oats ...	11·0 ...	18·9 ...	22·8
Barley ...	13·1 ...	23·1 ...	24·4
Potatoes ...	65·4 ...	148·3 ...	129·5

It would be incorrect to deduce from the comparatively small yields obtained by the Yankee farmer that he is a less competent or capable agriculturist than the Dane or the Irishman, just as it would be incorrect to deduce from the comparatively higher yields obtained in Ireland for oats and barley as compared with Denmark that the Irish agriculturist is more competent and capable than the Dane. So far, however, the risk of false inference is not very great.

When, however, comparison is made between the sum of Danish and of Irish agricultural activities reason too often disappears from the reckoning. Who has not heard it asserted that because there is less dairying or less pig production in Ireland the Irish farmer is less alert and less competent than his Danish competitor? Does the conclusion follow that because the Dane has increased the numbers of his milch cows or the number of his pigs relatively to the Irishman he is a more progressive and more practical agriculturist? In order to answer this question with any degree of certainty, it is neces-

sary among other things to compare price trends for all the leading agricultural products in Denmark and in Ireland respectively over a long period of time.

The urge to agricultural effort may be regarded as twofold in character: first, to provide directly from the soil a proportion of the necessaries of life for the cultivator; and, secondly, and usually the more important consideration, to produce goods for sale. So far as the second of these motives is concerned, the farmer has practically no alternative but to adapt his activities, within the limitations imposed by soil and climate, to comparative price changes. Whether, in the long run, he will in this way serve remoter interests, be they his own or those of the State, equally well is another matter.

However chequered has been the record of agriculture in Ireland, there is not a scintilla of evidence in the ample statistical material available to suggest that the Irish farmer has regulated his productive activities otherwise than in accordance with the economic tendencies of his time.

NOTE.

The statistics quoted in this paper have been taken from the following sources:—

Agricultural Statistics of Ireland; Returns of Agricultural Prices (Ireland); Journal of the Department of Agriculture; The Agricultural Output of Ireland, 1908; The Agricultural Statistics of Great Britain; Report of the Committee on the Stabilisation of Agricultural Prices (Great Britain); The Statist; Statistisk Aarbog for Danmark; Kapitelstakstr for Afgroden (Copenhagen); Verslag Over Den Landbouw in Nederland; Annuaire Statistique de la Belgique; Statistique Agricole (Paris); Annuaire Statistique (Paris); Wholesale Prices (U. S. Dept. of Labour); Year Book of the United States Department of Agriculture; Official Year Book of the Commonwealth of Australia; Official Year Book of New Zealand; Annuaire International de Statistique Agricole (Rome); Le Lait et ses Derives (International Agricultural Institute).

APPENDIX.

List of Official Agricultural Prices at present collected, showing intervals for which prices are available.

Product.	Intervals for which average prices are available.			
	Yearly.	Quarterly.	Monthly.	Weekly
Wheat, per cwt.	1881	1891	1909	1901
Oats, per cwt.	1881	1891	1909	1901
Barley, per cwt.	1881	1891	1909	1901
Potatoes, per cwt. ...	1881	1891	1909	1919-1922
Mangels, per ton ...	1919	1919	1916	
Turnips (stock food) per ton	1919	1919	1916	
Hay, per ton	1881	1891	1909	1919-1922
Oat Straw, per ton ...	1919	1919	1916	
Wheat Straw, per ton ...	1919	1919	1916	
Grass Seeds, per cwt ...	1895	1895	1909	
Wool, per lb.	1881	1891	1909	
Pork, per cwt	1881	1891	1909	1919-1922
Flax, per 14 lbs.	1881	1891	1909	
Butter, per cwt	1881	1891	1909	
*Eggs, per 120	1881	1891	1909	1919-1922
Hens, per pair	1919	1919	1916	
Chickens, per pair ...	1919	1919	1916	
Ducks, per pair	1919	1919	1916	
Turkeys, per head ...	1919	1919	1916	
Geese, per head	1919	1919	1916	
Dublin Market Fat Cattle and Fat Sheep, per cwt.	1881	1894	1908	1913
Calves, per head ...	1910	1894	1906	
†*Store Cattle*—				
6-12 months, per head ...	1900	1910	1911	
1-2 years, per head ...	1881	1891	1906	
2-3 years, per head ...	1881	1891	1906	
3 yrs. and over, per head	1887	1891	1906	
Fat Cattle—				
2-3 years, per head ...	1910	1910	1911	
3 yrs. and over, per head	1910	1910	1911	
Cows and Bulls, per head	1910	1910	1911	
Springers (Cows and Heifers), per head ...	1887	1891	1906	
Milch Cows (down calved), per head	1910	1910	1911	
Lambs, per head ...	1881	1891	1906	
Store Sheep—				
1-2 years, per head ...	1890	1891	1906	
2 yrs. and over, per head	1890	1891	1906	
Fat Sheep—				
1-2 years, per head ...	1910	1910	1911	
2 yrs. and over, per head	1910	1910	1911	
Young Pigs—				
8-10 weeks, per head ..	1908	1908	1911	
Store Pigs—				
10 weeks to 4 months, per head	1910	1910	1911	
4 weeks and over, per head	1913	1913	1913	
Fat Pigs, per head ...	1910	1910	1911	
Fat Sows, per head ...	1910	1910	1911	

*No Reports, 1887-1892. †Included in "Calves" prior to 1910.