

Total Production of the Electrical Industry in Millions of Reichsmarks.

Explanatory Notes.

I. Method employed in the Table.

Owing to the huge number of different products in the electrical industry it is impossible to state the total output quantitatively, and therefore only values have been entered in the lists. These values again are not comparable with one another, as they are based on the home prices of the various producing countries, and for many reasons the price basis varies very considerably in different countries. In the accompanying table an attempt has been made to obtain, from the available figures relating to production values, a comparison of actual quantities. To enable such a comparison to be made, the values have been reduced to a common price basis — in the present case, the German.

II. Explanation of the various columns.

Columns 2 and 7 contain production values, on the basis of the home prices in the various countries.

Columns 3 and 8 show the factor used to reduce the values to a common price basis, in order to enable the comparison of quantities to be made. This unit factor expresses the relation between the home market prices of the different countries, on the basis of which the comparative quantity values in column 4 a and 9 a are calculated. The German price basis is taken as 1 for both periods concerned, as this is the level from which the prices in the other countries are calculated. As regards the unit factors in column 8 for 1925, the increase in prices, as compared with 1913, is not taken into consideration. This is however shown in column 13. (For details see that column.)

In columns 4 a and 9 a the values given in columns 2 and 7 are divided by the factors given in columns 3 and 8, and in this way they are reduced to a common basis. The figures thus arrived at permit of a comparison of the share of the various countries in the total production, and this is given as a percentage in columns 4 b and 9 c.

Columns 6 and 11 show the export values in millions of marks, ascertained from official statistics.

Column 9 b ("Pre-war values") shows the production values in 9 a converted into pre-war value through dividing by the increase factor 1,2 as compared with 1913, so as to show in column 12 the comparison between the production in 1913 and 1925, both in respect of the individual countries, and also as regards the totals. The unit factor mentioned in column 8 is 1,2 as compared to 1913. The German price level is thus taken as being on an average 20% above pre-war basis. This figure takes into consideration the increase in efficiency, weight and unit compared, due to technical progress.

Column 13 shows the average factor of increase in the price of electrical goods as compared to 1913. This factor is calculated by multiplying the unit factor for 1925 by the increase factor of 1,2, and dividing the product by the unit factor for 1913. The mean value of 1,38, which represents the average increase in price of the world's production, is not the arithmetic mean of the price increase factors of the different countries, but is a weighted average value, which takes into consideration the percentage of total production falling to the share of each country.

Example: As the prices in the United States of America in 1913 were, on an average, 1,3 times the German prices, the prices in U. S. A. for electrical goods have not increased by  $1,57 \times 1,2 = 1,9$  times, but only by

$$\frac{1,57 \times 1,2}{1,3} = 1,45.$$

Columns 5 and 10 show the number of workers in thousands. The figures include manual workers only, not technical or clerical staff. In cases where only figures of total numbers employed were available, a definite percentage ratio of staff to manual workers has been assumed. See remarks in notes regarding sources of information at the foot of the table.

Country	1913						1925						Alteration in Production 1925 compared to 1913 (cf. 4 a and 9 b)	Coefficient of Price increased in Gold 1913 = 1	
	Production Millions of RM	Unit Faktor	Uniform Price Basis		Number of Workers in Thousands	Export Millions of RM	Production Millions of RM	Unit Faktor = 1,2 compared to 1913	Uniform Price Basis		Number of Workers in Thousands	Export Millions of RM			
			Production Millions of RM	Proportion of total Production %					Production Present Value Millions of RM	Proportion of total Production %					
															9a
2	3	4a	4b	5	6	7	8	9a	9b	9c	10	11	12	13	
Germany . . . . .	1 300 <sup>1)</sup>	1,0	1 300	34,9	140 <sup>2)</sup>	330,6	2 100 <sup>2)</sup>	1,0	2 100	1 750	23,3	190 <sup>2)</sup>	356,5	1,35	1,2
United States of America	1 400 <sup>4)</sup>	1,3	1 078	28,9	118 <sup>4)</sup>	112,4	6 800 <sup>5)</sup>	1,57	4 330	3 609	48,1	290 <sup>6)</sup>	353,2	3,35	1,45
Canada . . . . .	70 <sup>7)</sup>	1,3	54	1,4	5 <sup>8)</sup>	0,3	170 <sup>9)</sup>	1,57	108	90	1,2	8 <sup>9)</sup>	12,7	1,67	1,45
Great Britain . . . . .	600 <sup>10)</sup>	1,0	600	16,0	75 <sup>10)</sup>	156,2	1 400 <sup>10)</sup>	1,35	1 037	864	11,5	135 <sup>11)</sup>	352,2	1,44	1,62
France . . . . .	150 <sup>12)</sup>	1,0	150	4,0	30 <sup>13)</sup>	30,2	420 <sup>14)</sup>	0,95	442	368	4,9	75 <sup>14)</sup>	78,3	2,45	1,14
Austria <sup>15)</sup> . . . . .	120 <sup>16)</sup>	1,0	120	3,2	25 <sup>17)</sup>	10,4	113 <sup>18)</sup>	1,0	113	94	1,3	23 <sup>19)</sup>	84,7	0,78	1,2
Switzerland . . . . .	45 <sup>20)</sup>	1,0	45	1,2	— <sup>*</sup> )	24,7	110 <sup>21)</sup>	1,2	92	77	1,0	— <sup>**)</sup>	47,6	1,71	1,44
Italy . . . . .	45 <sup>21)</sup>	1,0	45	1,2	— <sup>*</sup> )	8,3	150 <sup>22)</sup>	0,9	167	139	1,9	— <sup>**)</sup>	12,2	3,08	1,08
Japan . . . . .	90 <sup>22)</sup>	1,3	69	1,9	— <sup>*</sup> )	1,6	360 <sup>23)</sup>	1,4	257	214	2,9	25 <sup>21)</sup>	11,1	3,10	1,3
Sweden . . . . .	40 <sup>25)</sup>	1,0	40	1,1	6 <sup>25)</sup>	14,1	80 <sup>26)</sup>	1,3	62	52	0,7	7 <sup>26)</sup>	40,1	1,30	1,56
Czecho-Slovakia <sup>27)</sup> . . . . .	20 <sup>28)</sup>	1,0	20	0,5	— <sup>*</sup> )	—	60 <sup>28)</sup>	1,2	50	42	0,6	— <sup>**)</sup>	4,6	2,1	1,44
Russia <sup>29)</sup> . . . . .	100 <sup>30)</sup>	1,2	83	2,2	12 <sup>30)</sup>	—	37 <sup>31)</sup>	3,5	11	9	0,1	6 <sup>31)</sup>	—	0,1	3,5
Other countries <sup>32)</sup> . . . . .	130 <sup>33)</sup>	1,0	130	3,5	20	—	270 <sup>34)</sup>	1,2	225	188	2,5	— <sup>**)</sup>	—	1,45	1,44
Total . . . . .	4 110		3 734	100	456	688,8	12 070		8 994	7 496	100	829	1 303,2	2,01	1,38 †)

\*) Estimated Total 25 000. — \*\*) Estimated Total 70 000. — †) Weighted average value. See explanatory notes in the margin.

<sup>1)</sup> Siemens-Zeitschrift 1921 p. 302.  
<sup>2)</sup> Private estimate.  
<sup>3)</sup> Private estimate based on numbers of employed persons reported to the Zentralverband der deutschen elektrotechnischen Industrie. The number of officials deducted from the total was estimated on the basis of a definite percentage ratio of staff to workmen.  
<sup>4)</sup> Refers to 1914; Census of Manufactures 1923.  
<sup>5)</sup> Latest American estimate (of Sept. 1926). Supported by particulars in New York Times of 27. Sept. 1926.  
<sup>6)</sup> Estimated from the figures for production and numbers of workers given in the Official Census of 1923.  
<sup>7)</sup> Refers to 1915; Canada Year-Book 1916/17 p. 292.  
<sup>8)</sup> Refers to 1915; Canada Year-Book 1916/17 p. 292. Only the number of employed is given. The number of workmen is calculated on the basis of the percentage of workers to staff as given in the same publication for 1921 and 1922.

<sup>9)</sup> Refers to 1922; Canada Year-Book 1924 p. 407.  
<sup>10)</sup> According to data furnished by the Economic and Statistical Dept. of the British Electrical and Allied Manufacturers' Association (Sept. 1926).  
<sup>11)</sup> Ministry of Labour Gazette 1926 No. I p. 22 and 23. The officials, some of which are included in the figures, given in the above publication, are deducted on the basis of a definite percentage ratio of staff to workmen.  
<sup>12)</sup> Rapport Général sur l'Industrie Française (Paris 1919).  
<sup>13)</sup> Estimated.  
<sup>14)</sup> Figures relating to production for 1924 as given by Beama: The Electrical Industry in France (London 1925, p. 39) transmuted for 1925, in accordance with the data available for 1925, of numbers of workmen (75 000 according to the Publication of the Union des Syndicats de l'Électricité, Paris 1926, p. 1275).  
<sup>15)</sup> Refers to the present territory (German-Austria).

<sup>16)</sup> Calculated on the basis of data of the Verband der Elektrizitäts-Industrie Oesterreichs, Vienna.  
<sup>17)</sup> Estimated.  
<sup>18)</sup> Refers to 1924; according to data of the Verband der Elektrizitäts-Industrie Oesterreichs, Vienna.  
<sup>19)</sup> Refers to 1924; Wirtschaftstatistisches Jahrbuch, Vienna 1925.  
<sup>20)</sup> Siemens-Zeitschrift 1921 p. 302.  
<sup>21)</sup> Private Estimate.  
<sup>22)</sup> Siemens-Zeitschrift 1921 p. 302.  
<sup>23)</sup> Refers to 1924; Japan Year-Book 1926 p. 502.  
<sup>24)</sup> Refers to 1924; estimated from the number of workers given in the Statistics of Agriculture, Industry and Commerce (Tokyo 1925 p. 107) for the year 1923 (23 870), and the figures relating to production for 1923 and 1924 in Japan Year-Book.  
<sup>25)</sup> Sveriges Offiziella Statistik (Industri) 1913.  
<sup>26)</sup> Refers to 1924; Sveriges Offiziella Statistik (Industri) 1924.  
<sup>27)</sup> Refers to present territory.  
<sup>28)</sup> Private Estimate.

<sup>29)</sup> Refers to present territory of European Russia.  
<sup>30)</sup> Commercial Year-Book of the Soviet Union 1925.  
<sup>31)</sup> Commercial Year-Book of the Soviet Union. Estimate 1924/25.  

32)	Belgium . . . . .	35	Millions of RM,
	Denmark . . . . .	15	" " "
	Netherlands . . . . .	25	" " "
	Norway . . . . .	10	" " "
	Spain . . . . .	20	" " "
Hungary *) . . . . .	25	" " "	

130 Millions of RM.  
<sup>33)</sup> Siemens-Zeitschrift 1921 p. 302.  
<sup>34)</sup> Estimated with the addition of the other countries which in the meantime have developed small electrical industries, the individual production of which is less than that of the countries mentioned under 32.  
<sup>\*)</sup> Hungary's Trade and Industry in the Year 1924 (Budapest 1925) p. 118.