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Volume Title: The Output of Manufacturing Industries, 1899-1937

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Volume Publisher: NBER

Volume ISBN: 0-87014-038-8

Volume URL: <http://www.nber.org/books/fabr40-1>

Publication Date: 1940

Chapter Title: The Output of Individual Manufacturing Industries:  
Tobacco Products

Chapter Author: Solomon Fabricant

Chapter URL: <http://www.nber.org/chapters/c6410>

Chapter pages in book: (p. 160 - 166)

## Chapter 8

### Tobacco Products

THE tobacco products group consists of three industries—cigars, cigarettes, and miscellaneous processed tobacco products. Tobacco curing and stemming and establishments engaged solely in tobacco packing are not included. Although it contains comparatively few industries, the group in 1937 contributed a larger share of the value added by all manufacturing industries than six other groups.<sup>1</sup>

#### TRENDS IN THE PHYSICAL OUTPUT OF THE TOBACCO PRODUCTS INDUSTRIES

*Cigars.* The physical output of the cigar industry was practically the same in 1937 as it had been in 1899 (Table 20 and Chart 10). During the first decade output rose by two fifths, but most of the rise occurred in the first five years. Between 1909 and 1919 the net gain was only 1 percent. The high point in the series for Census years was reached in 1914. Following 1919 a moderate decline set in, and by 1929 output was 11 percent below the 1919 level. From 1929 to 1937 the net decline was steeper, amounting to 20 percent.

Mechanization was widely introduced in cigar manufacture during the second half of the long period. Price reductions resulted, but apparently these served only to prevent cigar production from declining even more than it did. Another consequence of mechanization was the increase in the relative importance of short-filler cigars which brought down the

<sup>1</sup> The value added by the tobacco products group includes internal revenue taxes, an exceedingly important item.

average quality of cigars produced: these cigars, which tend to shred in the mouth during smoking, were originally made from scrap and cuttings discarded in the manufacture of long-filler cigars. They constituted 11 percent of the 1920 output, but after the introduction of the short-filler machine, which requires less labor than the hand or machine long-filler proc-

TABLE 20

## TOBACCO PRODUCTS

Physical Output: Indexes and Percentage Changes<sup>a</sup>

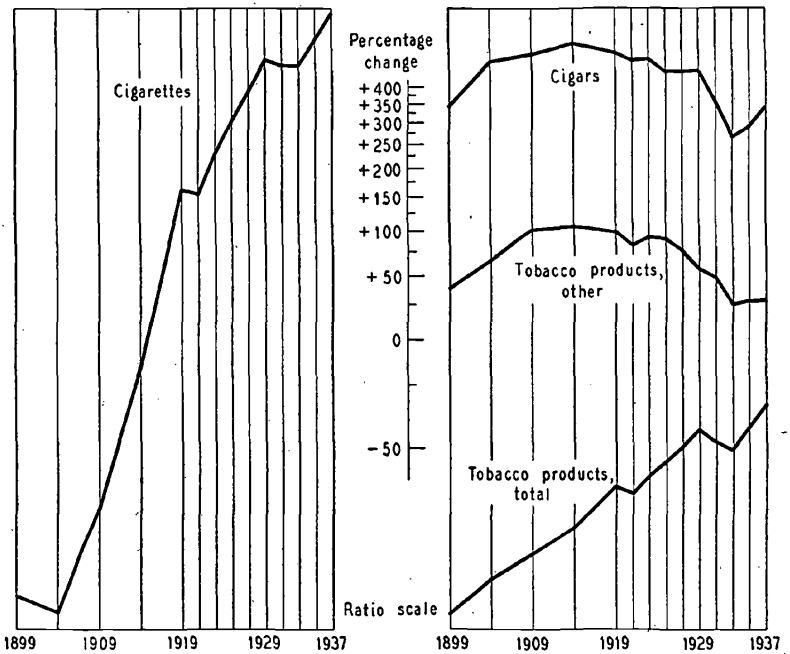
	<i>Cigarettes</i>	<i>Cigars</i>	<i>Tobacco Products, Other</i>	<i>Total</i>
INDEX OF PHYSICAL OUTPUT (1929:100)				
YEAR				
1899	3.1	80	89	30
1904	2.8	106	106	37
1909	5.6	111	130	43
1914	14	119	133	53
1919	43	112	128	69
1912	42	107	116	66
1923	54	108	124	74
1925	67	100	124	81
1927	81	100	114	90
1929	100	100	100	100
1931	96	82	96	93
1933	96	66	81	88
1935	113	70	82	101
1937	134	80	83	117
NET PERCENTAGE CHANGE IN PHYSICAL OUTPUT				
PERIOD				
1899-1937	+4,226	0	-6	+293
1899-1909	+81	+39	+46	+ 46
1909-1919	+670	+1	-2	+60
1919-1929	+132	-11	-22	+44
1929-1937	+34	-20	-17	+17

<sup>a</sup> The indexes have been constructed from basic data in the U.S. Census of Manufactures and reports of the U.S. Bureau of Internal Revenue, by methods described briefly in Chapter 2 and in detail in Appendix A. Appendix B presents these data, together with the indexes derived from them. The indexes cited here for individual industries have been adjusted to take account of changes in the coverage of the respective samples, except when such adjustment was impossible. The percentage changes are not always entirely consistent with the indexes given above because the changes were computed from the indexes in Appendix B, which are carried to one decimal place.

ess, the proportion increased rapidly, reaching 27 percent in 1936. On the other hand there was an improvement in cigar wrapping: many more cigars are individually wrapped today than was the case in the past.<sup>2</sup>

*Cigarettes.* The course of cigarette production stands in sharp contrast to the record of cigar output. Cigarettes rose

Chart 10  
TOBACCO PRODUCTS  
Indexes of Physical Output



from 1899 to 1937 at a rate that resulted in an increase of over 4,000 percent. After a decline in 1899–1904, output rose rapidly, so that by 1909 it had made a net gain of 80 percent over output in 1899. In the next decade the rate of growth

<sup>2</sup> U.S. Department of Labor, Bureau of Labor Statistics, "Mechanization and Productivity of Labor in the Cigar Manufacturing Industry," by W. D. Evans, *Bulletin No. 660* (1939), pp. 3, 4, 20, 53–54.

was greatly accelerated, and the increase approached 700 per cent. From 1919 to 1929 the rate of growth in cigarette production was slower, but output more than doubled. There was only a slight retardation in the recession years 1929-33, and by 1937 cigarette output was one third above the 1929 level.

*Other Tobacco Products*, including chewing and smoking tobacco and snuff, followed a time pattern roughly similar to that of cigars. Between 1899 and 1937 output fell 6 percent, the net result of a rise to a peak in 1914 and a decline thereafter. The net loss from 1899 to 1937 reflects two movements: an increase of about 15 percent in the aggregate production of chewing, smoking and snuff tobacco, including the secondary products of the cigarette industry; and a decline in the proportion that the products made in the "other tobacco products" industry constituted of total production.<sup>3</sup>

Among the individual products of the industry, plug, twist, and fine-cut tobacco underwent severe declines in output. On the other hand the production of smoking tobacco and snuff rose.<sup>4</sup>

*Summary.* The combined output of all three tobacco industries quadrupled in the 38 years from 1899 to 1937. The growth was most rapid in the second decade, 1909-19, when output rose 60 percent. In the last period there was a net gain of 17 percent, despite serious declines in cigars and in miscellaneous tobacco products. The combined output of the three industries outstripped by a wide margin the growth in population in the first decade. In the other three periods, and during the period 1899-1937 as a whole, the rise in population was exceeded only by the rate of increase in cigarette output. Cigarettes alone rose more rapidly than total manu-

<sup>3</sup> An adjustment for this second movement could not be made for the years 1899-1923 inclusive. Because the adjusted and unadjusted indexes fail to correspond closely for 1925-37, the unadjusted index for 1899-1923 must be considered only an approximate measure of the output of the industry.

<sup>4</sup> *Statistical Abstract, 1938*, p. 802.

facturing output in every period. The output of the entire group increased at about the same rate as total manufacturing in the entire period 1899-1937, although its rise was more rapid in the second and fourth periods, and less rapid in the first and third.

### CHANGES IN THE INDUSTRIAL PATTERN OF TOBACCO MANUFACTURE

As Table 21 shows, there was wide variation over the years in the relative contributions of the three individual tobacco products industries to the output of this major group. In

TABLE 21

## TOBACCO PRODUCTS

Relative Contributions of Component Industries to the Physical Output of the Entire Group<sup>a</sup>

Industry	Percentage Distribution, Comparable Pairs of Years									
	1899	1909	1909	1919	1919	1929	1929	1937	1909	1937
Cigarettes	62.8	62.6	9.0	43.2	40.2	64.7	68.1	77.9	10.3	80.3
Cigars			58.2	36.6	37.2	23.0	18.7	12.7	49.5	11.4
Tobacco products, other	37.2	37.4	32.8	20.1	22.6	12.3	13.2	9.4	40.1	8.3
TOTAL <sup>b</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>a</sup> Derived from Table 20. For an explanation of the derivation of the measurements see footnote 10, Chapter 4.

<sup>b</sup> The columns do not add up to 100.0 in every instance because they contain rounded percentages.

1909 (the earliest year for which we have accurate data on which to base a detailed distribution), the cigarette industry accounted for only 10 percent of the group's output. Cigars contributed almost 50 percent, and miscellaneous tobacco products the remaining 40 percent. By 1937 the pattern had changed almost beyond recognition: the cigarette industry, contributing four fifths of the total, was now predominant, whereas cigars and miscellaneous products accounted

for only 11 and 8 percent respectively. Corresponding figures, based on value added and given in Table 22, serve to confirm the account presented in Table 21.

TABLE 22

## TOBACCO PRODUCTS

Relative Contributions of Component Industries to the Value Added by the Entire Group<sup>a</sup>

Industry	Percentage Distribution					
	1899	1909	1919		1929	1937
			Comparable with earlier years	later years		
Cigarettes	} 59.8	{ 10.7	39.3	39.2	65.7	79.9
Cigars			40.1	40.0	21.2	10.7
Tobacco products, other	40.2	34.3	20.6	20.8	13.1	9.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

<sup>a</sup> Basic data are given in Appendix C.

It should not be assumed that the changes in the industrial distribution of output, as indicated by the figures in Tables 21 and 22, represent the pattern of tobacco consumption, for which quantitative data are presented below:

	Leaf Tobacco Consumed (million pounds) <sup>a</sup>						Percentage Distribution					
	1899	1909	1914	1919	1929	1937	1899	1909	1914	1919	1929	1937
Cigars	93	137	159	165	152	129	25	27	29	25	19	15
Cigarettes	15	24	62	198	347	480	4	5	11	29	44	55
Tobacco products, other	259	344	334	308	298	264	71	68	60	46	37	30
TOTAL	367	505	555	671	797	873	100	100	100	100	100	100

<sup>a</sup> *Statistical Abstract, 1920, p. 566; 1922, p. 490; 1938, p. 803.*

Although the cigarette industry accounted for about 80 percent of processed tobacco output in 1937, it consumed only about half the leaf tobacco in that year. At the beginning of the century, the manufacture of chewing and smoking to-

bacco absorbed almost three quarters of the leaf tobacco, but even then these products contributed only two fifths of the output of the group as a whole.

There is another important difference between consumption by the tobacco products industries and their output. Although the group's physical output quadrupled between 1899 and 1937, the amount of tobacco it used did not even triple. It is true that the per capita consumption of tobacco rose fairly rapidly, but there was an even more rapid rise in the output of manufactured tobacco products. The divergence reflects two shifts: first, a change in the kind of product (cigarettes containing a pound of tobacco are worth more in dollars and cents than a pound of smoking tobacco) and second, a movement of processing to the factory from the home (cigarettes made in the factory have a greater money value than the "makings" purchased by the man who rolls his own).