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CHAPTER IV

COTTON AND COTTON TEXTILES
(Group II)

A. General Characteristics of Groups II and III

Groups II and III both cover industries for whose finished products consumers' demand is subject to marked seasonal variation. Although the degree of seasonal variation requisite for inclusion cannot be given precisely, the nature of Groups II and III becomes clear from an enumeration of the commodities that seemed properly to belong to them: most cotton, woolen and silk goods, shoes and gloves, automobiles, furniture, coal in so far as used by non-industrial consumers, cooling drinks and ice cream. For purposes of study, however, we consider only durable and semi-durable commodities. The few perishable consumers' goods for which there is a seasonally variable demand are excluded, because in respect of these the seasonal problem is very different from that affecting the more durable commodities. Most perishable consumers' goods cannot be stored and they require much less processing than durable products.

The importance of manufacturing processes in the production of the more durable commodities makes obvious the seriousness of the problem created by the appreciable seasonal swings in consumers' demand. It is to the manufacturer's advantage to carry on production at as even a rate as possible, since he is thereby enabled to reap the benefit of machine production to its full extent. It is also to his advantage (or to that of the intermediary between him and the final consumer) to sell his products immediately. If he keeps a stock on hand, he runs the danger of a decline in price, and, in the case of some products, of a change in fashion, and he has to carry the burden of the capital involved and the charges for stock protection. These two conflicting aims—to produce steadily and to dispose of output at once—create the seasonal problem. In some

instances it is resolved by keeping production relatively steady and allowing stocks to accumulate to take care of the intermittent demand by consumers. In others production is regulated to conform with consumers' demand. When more than one manufacturing process intervenes between the raw material and the final product some processes may be continued at an even rate while others are adapted to meet consumers' demand for the finished goods.

The adjustment of manufacturing and final demand is, however, only one phase of the seasonal problem, a phase common to both Groups II and III. Another is that of the adjustment of manufacturing with the supply of the raw materials. Group II covers industries in which, in addition to the seasonality of demand for the finished product, there are appreciable seasonal variations in the supply of the raw materials. Group III embraces industries in which marked seasonality in the demand for the finished product and a relatively even supply of raw materials co-exist.

The most important of the industries whose raw materials and finished products are both subject to considerable seasonal swings is cotton textiles. This chapter is devoted to a discussion of the seasonal movements at the various stages in production, shipments, stocks and sales of cotton and cotton textiles, as illustrative of the type of seasonal problem in Group II.

B. Cotton and Cotton Textiles

GENERAL CHARACTERISTICS

The composite picture of seasonal movements in raw cotton and cotton textiles is presented in Charts 13 through 18 and in Table VI. Of the long chain that leads from raw cotton to the sale of finished cotton goods by retailers, the first part, that ending with consumption of cotton by textile mills, shows the same damping of seasonal amplitude and shift in seasonal pattern that characterize the movement of wheat from the fields into the flour mills. Consumption of raw cotton by textile mills is relatively free from seasonal disturbances, while the harvesting of raw cotton is concentrated in four months. And, as in wheat, manufacturing activity is at seasonal peak

several months after the peak in harvesting. Cotton resembles wheat also in that the two most marked drops in seasonal amplitude occur between harvesting and marketing by farmers, and between deliveries of raw cotton to textile mills and its consumption by them. Another similarity is that in cotton also the farmer and the manufacturer both carry large and seasonally variable stocks of the raw material.

But it cannot be said of cotton that, as in wheat, the seasonal variation in manufacturing is imposed by the swing in the supply of the raw material. The movement of the finished commodity, that is, of cotton products, is, because of the marked seasonality of final demand for cotton goods, quite different from that of wheat flour products. This seasonality of demand finds only an attenuated reflection in the production of cotton textiles: with few variations from commodity to commodity, the output of specific cotton goods is not characterized by any appreciably larger seasonal swing than that in total cotton consumption by all textile mills. Shipments, in the case of the more finished commodities, already reflect somewhat more the seasonality of final demand; and the latter is still more apparent in new orders. But an analysis of producers' stocks of finished goods reveals that, while shouldering the burden of seasonal stocks of raw materials, manufacturers of cotton goods do not as a rule undertake to care for the disparity between the even rate of their productive activity and the highly seasonal final demand for their goods. This is particularly true of semi-finished cotton goods. It is less true of such completely finished goods as underwear or hosiery.

Thus, it must be the intermediaries between the manufacturers and final consumers who take over the burden of carrying seasonally variable stocks. Beginning with the production of cotton goods there is an increasing amplitude of seasonal variations as well as a further shift in timing. From the available data a precise tracing of this change from link to link is not possible. However, the data do indicate that the most marked jump in seasonal amplitude occurs between sales by wholesalers and by retailers, which suggests that extensive stocks, variable seasonally, may be held by the latter. This conclusion should be considered tentative, in view of the scarcity of data on purchases and sales by wholesalers.

DETAILED COMMENTS

1. Harvesting and Marketing

A comparison of the seasonal indexes for harvesting and for marketing by farmers (Chart 13) shows that cotton growers retain a considerable portion of the crop and dispose of their stock gradually during the months when no new cotton comes in from the fields. Thus, no cotton is harvested after January, while marketing takes place during each month of the year, the total amount marketed from the end of January to the end of July averaging over 20 per cent of the annual total.

It is probably safe to assume that the carryover of cotton by farmers from one crop year to the next is negligible. Consequently total marketing is equal to total harvesting, and changes in farmers' stocks are given by a direct subtraction of the index for marketing from that for harvesting. Inspection of the resulting figures indicates that: (1) farmers' stocks of cotton are at seasonal peak at the end of October and at seasonal trough at the end of July; (2) these stocks rise rapidly during August, September and October, the most conspicuous rise taking place in September; (3) in the decline in stocks from the end of October to the end of July the most marked decrease occurs in December, January and February, and the least appreciable in July.

2. The Consumption of Raw Cotton

During the years 1920-29 mills in this country consumed about 43 per cent of the crop; the remaining 57 per cent was exported. It is therefore not surprising to find that exports of raw cotton exhibit seasonal movements that correspond closely to those in the marketing of cotton by farmers and receipts into sight (Chart 13). There are interesting differences, however. The seasonal peak in exports lags one month behind that in domestic marketing and receipts into sight. Marketing and receipts are highest in October, exports in November. Also, the seasonal swing in exports is much narrower than that in the other two series.

The portion that is not immediately exported goes either to the public warehouses or to the manufacturers.

CHART 13

SEASONAL MOVEMENT OF COTTON

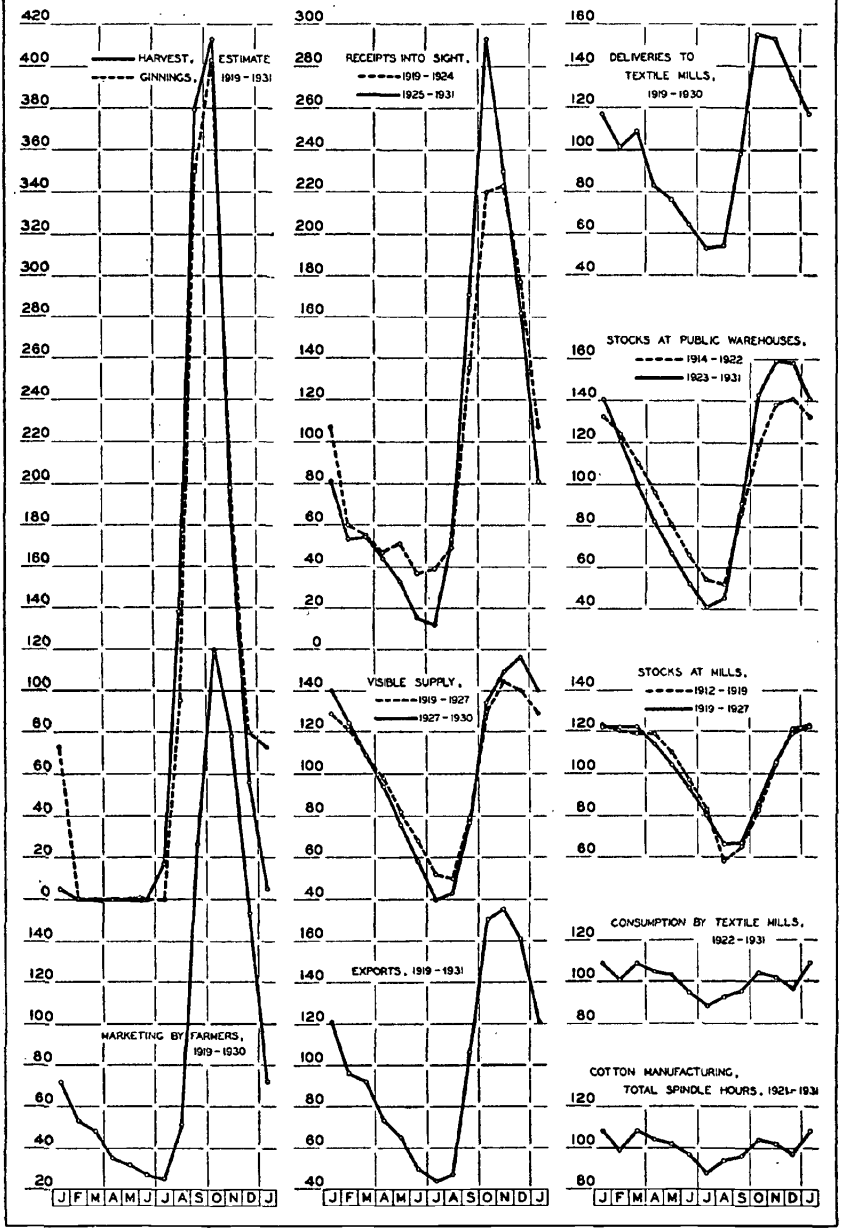


TABLE VI

AMPLITUDE OF SEASONAL VARIATIONS: COTTON AND COTTON GOODS

Series	Average Deviation	Range
RAW COTTON		
Harvest Estimate	120.3	413
Ginnings, 1919-31	108.6	403
Marketing by Farmers, 1919-30	76.2	255
Receipts into Sight, 1919-24	60.3	186
1925-31	75.9	281
Exports, 1919-31	38.8	131
Delivery to Textile Mills, 1919-30	28.4	102
Visible Supply, 1919-27	28.7	94
1927-30	35.3	116
Stocks at Public Warehouses, 1914-22	27.4	89
1923-31	37.0	118
Stocks at Mills, 1912-19	19.2	65
1919-27	18.0	56
Consumption by Textile Mills, 1922-31	5.7	21
Cotton Manufacturing, Total Spindle Hours, 1921-31	4.8	20
COTTON GOODS AND ACCESSORIES		
Production		
Cotton Textiles, 1926-31	6.2	34
Finished Cotton Goods, 1921-31	7.0	34
Fine Cotton Goods, New Bedford, 1922-30	5.2	26
Knit Underwear, 1924-31	6.6	27
Hosiery, 1923-31	4.3	25
Working Clothes, 1923-30	7.5	39
Artificial Leather, 1923-31	8.4	41
Fresh Water Pearl Buttons, 1922-31	7.1	32
Shipments		
Cotton Textiles, 1926-31	5.9	28
Finished Cotton Goods, 1921-31	5.8	27
Knit Underwear, 1920-31	11.2	38
Hosiery, 1924-31	8.2	32
Working Clothes, 1924-30	8.3	42

TABLE VI (CONTINUED)

Series	Average Deviation	Range
Artificial Leather		
Total, 1923-31	8.0	42
Light Goods, 1925-31	8.5	35
Heavy Goods, 1925-31	11.6	60
Elastic Webbing, 1922-31	6.6	32
Stocks		
Cotton Textiles, 1926-31		
Computed	4.6	18
Derived	4.7	20
Finished Cotton Goods, 1921-31		
Computed	2.1	10
Derived	3.8	16
Knit Underwear, 1924-31		
Computed	12.2	40
Derived	15.5	48
Hosiery, 1924-31		
Computed	3.5	13
Derived	5.4	17
Working Clothes		
Computed, 1923-27	5.2	17
Derived, 1924-30	3.0	12
Fresh Water Pearl Buttons, 1922-31	0.8	4
New Orders		
Cotton Textiles, 1926-31		
Computed	15.0	49
Derived	12.8	60
Finished Cotton Goods, 1924-31	8.0	34
Knit Underwear, 1924-31		
Computed	11.4	48
Derived	12.3	51
Hosiery, 1924-31		
Computed	8.6	39
Derived	9.8	47
Artificial Leather, Derived, 1923-31	10.5	40
Unfilled Orders		
Cotton Textiles, 1926-31	8.2	23
Finished Cotton Goods, 1924-31	10.0	42
Knit Underwear, 1924-31	9.5	28
Hosiery, 1924-31	3.7	16
Artificial Leather, 1924-31	8.8	30

TABLE VI (CONTINUED)

Series	Average Deviation	Range
WHOLESALE TRADE		
Sales		
Dry Goods Wholesalers, 1919-27	11.8	49
Cotton Goods Jobbers, N. Y. F. R. D., 1923-31	11.9	57
Cotton Goods Commission Houses, N. Y. F. R. D., 1924-28	6.3	26
Stocks held by Dry Goods Wholesalers		
Philadelphia F. R. D., 1924-31	3.9	20
Richmond F. R. D., 1925-31	5.0	25
Dallas F. R. D., 1924-31	6.8	39
SALES AT RETAIL		
Dry Goods Chain Stores, 1919-25	19.3	81
New England Department and Specialty Stores		
Cotton Dress Goods, 1923-25	29.4	117
1926-30	24.8	92
Aprons and House Dresses, 1923-25	29.2	114
1926-30	27.9	111
Waists and Blouses, 1923-25	22.8	79
Notions, 1923-25	11.2	63
1926-30	10.8	56
Knit Underwear, 1923-25	35.2	160
1926-30	32.2	185
Petticoats, 1923-25	28.0	185
Domestics, 1923-25	19.4	62
1926-30	24.2	108
Infants' Wear, 1923-25	28.2	138
1926-30	27.4	136
Handkerchiefs, 1923-25	74.2	484
1926-30	70.5	454
Cleveland Department Stores, 1924-25		
Cotton Dress Goods	30.8	131
Aprons and House Dresses	26.2	139
Waists and Blouses	23.6	105
Notions	9.6	62
Knit Underwear	37.9	168
Petticoats	29.3	189
Domestics	16.2	71
Infants' Wear	23.8	108
Handkerchiefs	72.8	481

The manufacturers of the highest grades ordinarily buy at an early date a larger proportion of their total supply than those using ordinary staple. The former wish to exercise a wider choice in their selection and also to make sure of an adequate quantity. The demand for long staple cotton is frequently so great that the manufacturer who delays is unable to obtain the quality which he desires, or can secure it only at a very high price.

The spinner of common grades gauges his purchases according to the course of the market; he buys early or late according to his judgment of the favorableness of price quotations. However, he usually obtains a large quantity during the harvesting season. . . . .

The cotton is shipped as soon as purchased and warehoused at the mills, which are provided with commodious storage rooms. The merchant does not have a warehouse of his own, and public warehouses in the northern cities are seldom utilized for storing cotton. Payment for the cotton is made ordinarily within three days after its receipt at the mill. Thus the northern manufacturers bear the burden of carrying a large quantity of raw cotton from the time that it is harvested till it is manufactured. . . . .

In the South there is wider variation in the practice of the manufacturers in buying their cotton. The few mills in that section which use long staple cotton purchase their supply early for reasons the same as those which influence the fine goods manufacturers in the North. But with the great majority of the southern mills, which manufacture coarse cloth, the practice depends upon the location, size, and financial strength of the individual mills. . . . .

While it is thus common for the southern mills to carry cotton for which they have not immediate requirements, the proportion bought during the season is probably less than in New England. The southern manufacturers do not obtain the cotton entirely from merchants, but frequently deal directly with the farmers, in a few instances sending out their own buyers through the district in which cotton suited to their needs is grown.[1]

This description of the seasonal aspects of manufacturers' purchases of raw cotton is confirmed by a comparison of two seasonal indexes: those for delivery of cotton to mills (derived from stocks held by mills and their consumption of cotton) and for cotton consumed in manufacturing. It is clear from this comparison that from September through December textile mills buy much more cotton than they consume; between January and April they buy an amount approximately equal to their monthly consumption; and from May to August they buy less than they consume. During 1919-31 stocks of raw

[1] M. T. Copeland, *The Cotton Manufacturing Industry of the United States* (Cambridge 1923) pp. 180-3. For discussion of cotton marketing see also Report of the Federal Trade Commission on *Cotton Trade* (Washington 1924) Part I, pp. 24-74.

cotton at mills were equal to 2.7 months' consumption. Hence, at their seasonal peak at the end of January, February and March, mills held stocks sufficient to satisfy their needs for more than three months.

3. Cotton Textiles

a. *Commodities Covered*

Unlike wheat, cotton is converted into a variety of products which find innumerable uses.

Every great industry is more or less dependent upon cotton. Railroads annually use the equivalent of several hundred thousand bales for air-brake hose, plush for car seats, for enameled ceilings that have a basis of cotton duck or other fabric. The cement industry transports its product today in cotton bags which took the place of barrels more than a quarter of a century ago when the low price of cotton attracted attention to its availability for this purpose. No one knows how many thousands of bales of cotton are employed in the construction of the modern skyscraper and well-built residence. Those who are observant will note that the asbestos cement covering around steam and hot-water pipes is held in place by light cotton duck.

The electrical industry today uses tens of thousands of bales of cotton for the insulation of copper wire. The automobile has become an important consumer of cotton. Tire fabric calls for hundreds of thousands of bales either of long-staple cotton for certain classes of fabric, or shorter staple which can be used in cord tires. Artificial leather, with cotton as a base, has become a competitor of hides in the upholstering trades, for automobile tops and curtains, and numerous other uses. The list might be extended into a veritable catalogue, but probably the most unique use to which this fiber is put is in the manufacture of 'synthetic ivory' for billiard and pool balls, imitation tortoise shell toilet articles, and similar products.

The use of cotton 'linters,' the short fiber obtained from cotton seed after passing through the gins, in the manufacture of rayon, or artificial silk, forms the basis of another great and growing industry.

Modern farm implements require vast amounts of cotton. Self-binding reapers and threshing machines call for quantities of heavy cotton goods for elevators and belts. It might almost be said that the great grain crops of the world today could not be harvested and marketed without the use of cotton.[2]

Many of these diverse uses are reflected in the series relating to the movement of such semi-manufactured cotton goods as bleached or dyed cloth or the coarser type of textiles, print cloth, sheetings and tobacco cloth. Also an interesting sample is afforded by artificial leather, whose ultimate use is not only

[2] See the Cotton Industry, by C. T. Revere, in *Representative Industries in the United States,* R. T. Warshow, Editor (New York 1928) p. 257.

for clothing but also in such an entirely different commodity as automobiles. But by and large, only cotton clothing is well represented in the data analyzed in this chapter, and in that sense the tracing of raw cotton in its flow into domestic use is incomplete. However, the channels omitted account for only a minor fraction of the crop consumed within the country.

A question may arise as to the propriety of classifying knit underwear, hosiery and artificial leather as cotton goods. However, cotton is the important raw material in all. According to the *Census of Manufactures: 1929,* of 8.8 million dozen shirts and drawers 7.2 million were cotton; and of 8.9 million dozen union suits 7.4 million were cotton. Of 111 million dozen pairs of hosiery produced, 33 million were all cotton, and in some 54 million cotton was used for tops, heels and toes; in addition, a great deal of cotton was mixed with silk, wool and rayon. In artificial leather gray cotton goods such as sheetings, drills, ducks, satins or moleskins are the base upon which nitrocellulose or pyroxylin preparations are spread either alone or in combination with some other materials.

b. *Production*

The seasonal amplitudes in output of specific types of cotton goods show no definite grouping. We might have expected the output of semi-manufactured goods to show a smaller seasonal amplitude than the production of manufactured commodities, since the former are further from the seasonally variable final demand. But the highest average deviation is in artificial leather which is a semi-manufactured commodity, and the lowest in hosiery which is a completely finished commodity. Differences in seasonality of final demand for the goods seem to be more important in determining differences in seasonal amplitude of production than differences in the distance from final demand. Thus, artificial leather shows large average deviations because of the importance of demand for the product by automobile factories, themselves bent upon satisfying a highly seasonal demand by ultimate consumers. Hosiery, on the other hand, is subject to rather continuous use and purchase by final buyers.

There is a substantial identity of pattern in the eight production indexes given on Charts 14, 15 and 16. In each, two seasonal peaks occur, the first uniformly in March, the second

CHART 14

SEASONAL MOVEMENT OF COTTON MANUFACTURES

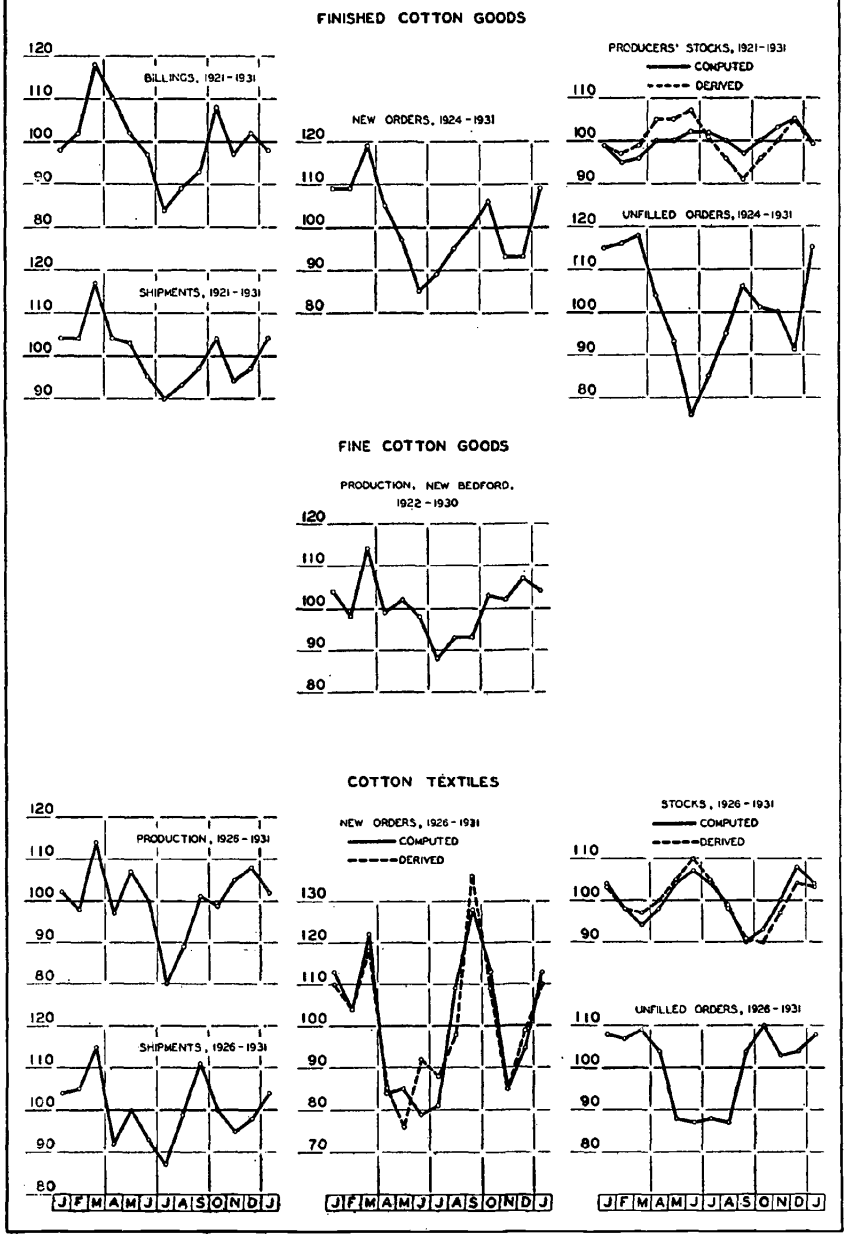


CHART 15

SEASONAL MOVEMENT OF KNIT UNDERWEAR AND HOSIERY

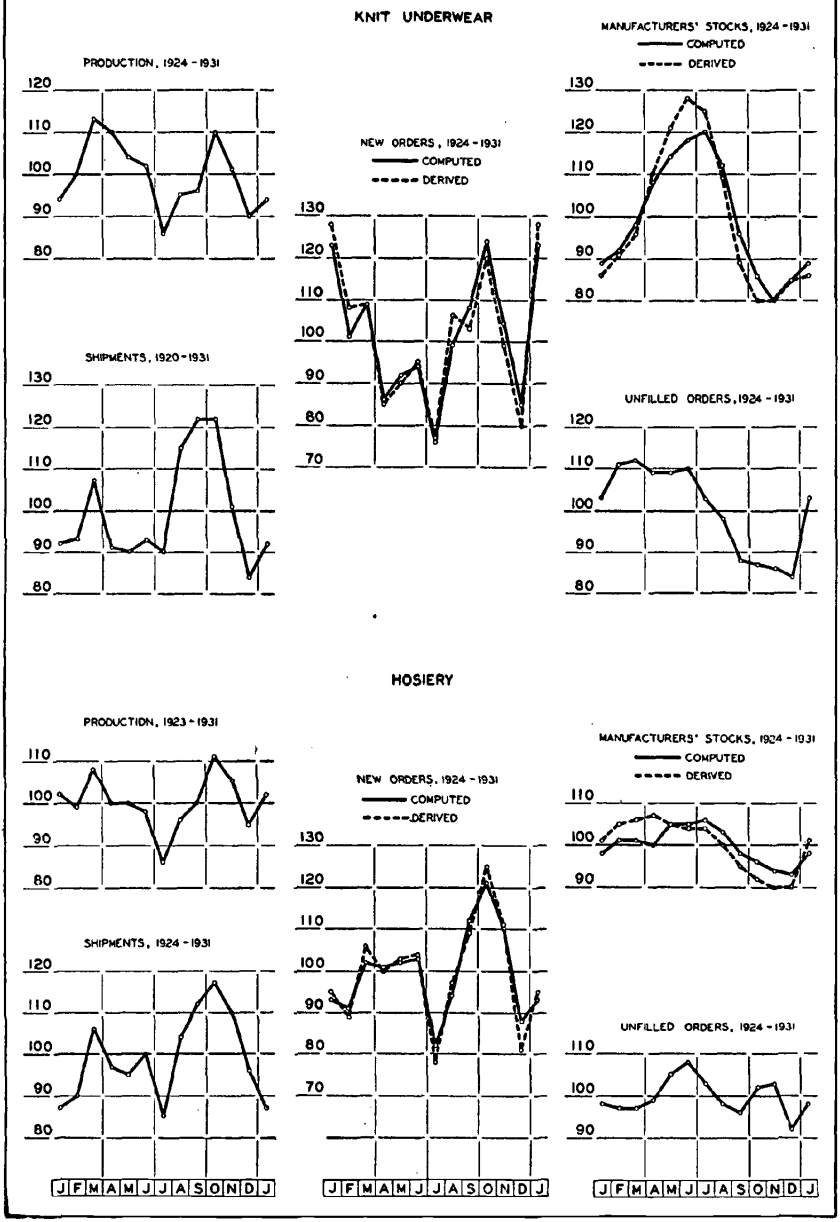
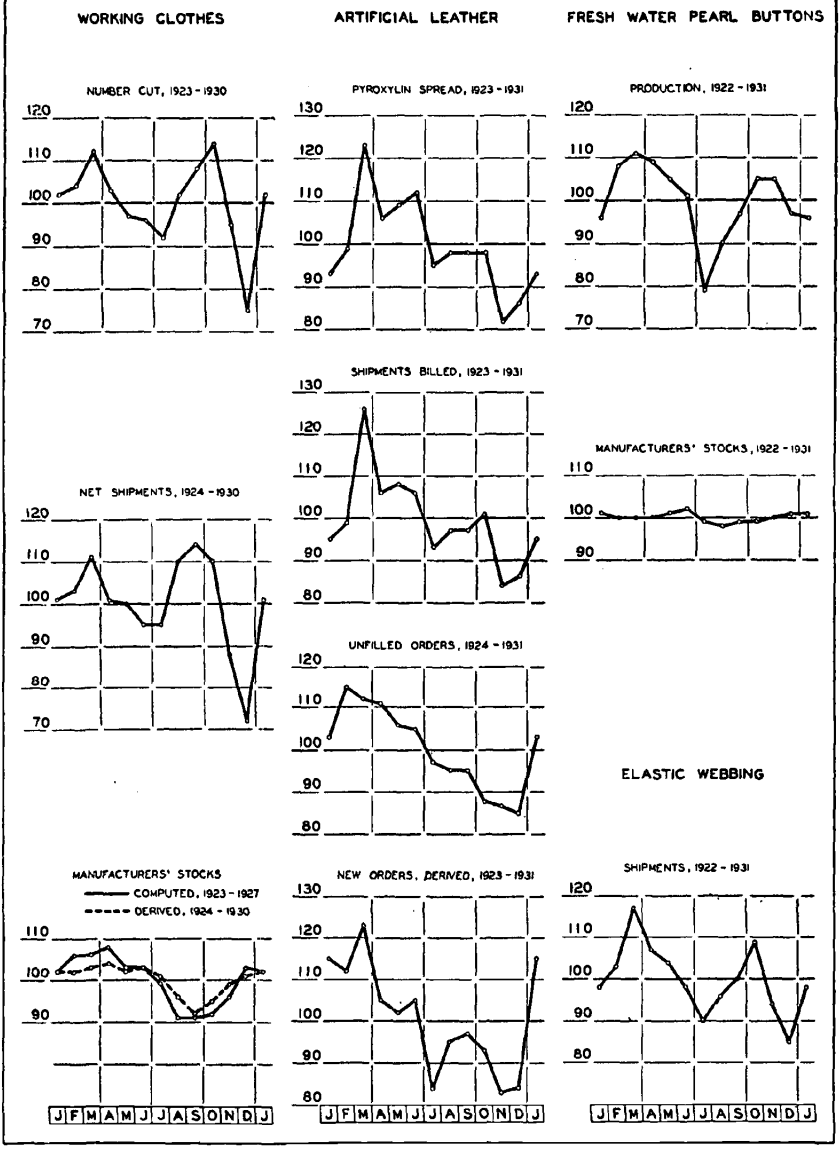


CHART 16

SEASONAL MOVEMENT OF WORKING CLOTHES ARTIFICIAL LEATHER AND ACCESSORIES



in October in most series (finished cotton goods, knit underwear, hosiery, working clothes, buttons), in December in some (cotton textiles, fine cotton goods). The nature of this pattern suggests little similarity to the swing in the production of raw cotton but bears a distinct resemblance to the seasonal swings in wholesale and retail sales of cotton goods (and for artificial leather to that in automobile production). It appears clear that the variation in output of these goods is imposed by the seasonality in demand by final consumers, the divergencies in pattern arising from the diverse uses to which the various commodities are put.

c. *Shipments*

In the comparative amplitude of shipments and production a marked difference arises between the semi-manufactured and the completely manufactured commodities. Among the former, shipments (as measured by the average deviation of the seasonal index) of finished cotton goods and artificial leather are less variable seasonally than production. Among the completely manufactured commodities—underwear, hosiery and working clothes—on the contrary, shipments are characterized by seasonal indexes whose average deviations are appreciably larger than those for production. The reason may lie not only in the greater seasonality in the demand from manufacturers for the completely manufactured products but also in the willingness of the manufacturers in these fields to produce for stock. This statement is partly confirmed by the analysis below of producers' stocks of these various commodities.

The seasonal pattern in shipments is, in general, highly similar to that in production. Exceptions are found in cotton textiles and knit underwear. In the former the second peak in shipments is in September while in production it is in December. Obviously, some group of cotton textiles is produced for stock before the autumn, these stocks to be drawn upon during the summer and early autumn. In knit underwear the autumn peak in shipments is much more prominent than the spring peak, while the reverse is true of production. Here again producers accumulate stocks, as a result of spring activity, for use in autumn.

d. *Stocks*

Seasonal changes in stocks of finished goods held by producers are fully accounted for by the cumulative changes between the seasonal swings in production and shipments. This is clearly shown by the graphical comparison on Charts 14, 15 and 16 of the computed and derived indexes for stocks.[3]

The significance of seasonal variations in producers' stocks is best gauged when the average deviation of the seasonal index is combined with some measure of the importance of stocks as compared with production and shipments (usually the volumes of the latter are approximately equal). For the years covered by the seasonal indexes the ratio of stocks to monthly production was 1.4 for cotton textiles, 0.9 for finished cotton goods, 1.2 for knit underwear, 2.1 for hosiery and over 6.0 for buttons (the last is derived from a comparison of reported stocks with the Census data on production). Multiplying the average deviation of the seasonal index for stocks by the ratios just cited, we obtain the following rough measures of the importance of seasonal variations in stocks: 6.4 for cotton textiles; 1.9 for finished cotton goods; 14.6 for knit underwear; about 5.8 for buttons. The relatively small significance of seasonality in producers' stocks of finished goods, as indicated by these measures, emerges clearly when a similar measure is computed for raw cotton stocks held by mills; for the latter it is 48.6.

Because of the substantial similarity of pattern characterizing production and shipments, seasonal variations in stocks are due largely to differences between the seasonal amplitudes of production and shipments. When the swing in production is greater than that in shipments, stocks show a seasonal pattern similar to that in production and shipments. When, with similar patterns, production is seasonally less variable than shipments, stocks show a pattern inverted to that in output and outflow. A comparison of indexes in Charts 14, 15 and 16 affords at least partial support for this statement. The pattern in stocks of finished cotton goods is only partly similar to that in production and shipments, and that in stocks of cotton textiles is only partly inverted to that in output and

[3] For cotton textiles the original series for shipments is computed from production and stocks, not collected independently. Therefore the comparison of the two indexes for stocks has only a limited meaning. The same is true below of the derived index for new orders for the same group.

outflow. But in knit underwear and in hosiery stocks do show the inverted pattern that is expected; in working clothes the pattern is partly inverted; in all three, stocks are high in mid-summer, when both production and shipments are low, and are at trough in the autumn when both production and shipments are at seasonal peak.

e. *New and Unfilled Orders*

The seasonal swing in new orders is higher than that in production in each of the five comparisons that available data make possible. But the comparison with shipments yields somewhat different results. In the semi-fabricated group, such as cotton textiles, finished cotton goods and artificial leather, the amplitude of new orders is clearly in excess of that in shipments. There is a clear tendency for orders to be bunched at definite times of the year and for shipments to run at varying intervals behind receipts of new orders. In fully fabricated goods, such as knit underwear and hosiery, the seasonal amplitude of new orders is about equal to that of shipments. If the similarity in pattern between new orders and shipments is substantial, this approximate equality of seasonal amplitude makes possible the statement that either there is a constant time lag between the two (that is, a constant interval is consumed in filling orders throughout the year) or that orders are filled in the same month in which they are received.

The comparison of seasonal patterns in new orders and shipments does show a substantial similarity, not only in fully fabricated goods but also in semi-manufactured. The only notable exception appears in knit underwear, in which the spring peak in shipments is in March and the corresponding peak in new orders appears to be in January.

The seasonal changes in unfilled orders may clearly be interpreted as a cumulation of seasonal disparities between shipments and new orders. This is shown by the graphical comparison on Charts 14 and 15 of derived and computed indexes for new orders. In the semi-manufactured textiles that go primarily into clothing (that is, excluding artificial leather) unfilled orders are low in mid-summer. For such fully fabricated goods as underwear and hosiery the seasonal trough occurs in winter.

4. Sales at Wholesale

According to the *Census of Distribution: 1930,* 39 per cent of cloth converted by cotton manufacturers was billed to wholesalers; and since three-quarters of total cloth is converted by the cotton manufacturers themselves, this percentage is likely to hold for the total volume of finished cotton goods. Of knit goods (knit underwear and hosiery) 52.5 per cent was reported as sold to wholesalers; of men's work clothing, 30.7 per cent. Thus, a substantial proportion of semi-manufactured and manufactured cotton goods passes through the hands of wholesalers before it reaches retailers and final consumers.

Chart 17 presents seasonal indexes of sales by and stocks in the hands of dry goods wholesalers. While dry goods wholesalers deal also in some woolen goods and some mixed materials, it may be assumed that cotton goods form the bulk of their sales. Partial proof of this is found in the fact that when cotton jobbers are specifically segregated, the seasonal movements in their sales are almost identical with those in the sales and stocks of dry goods wholesalers.

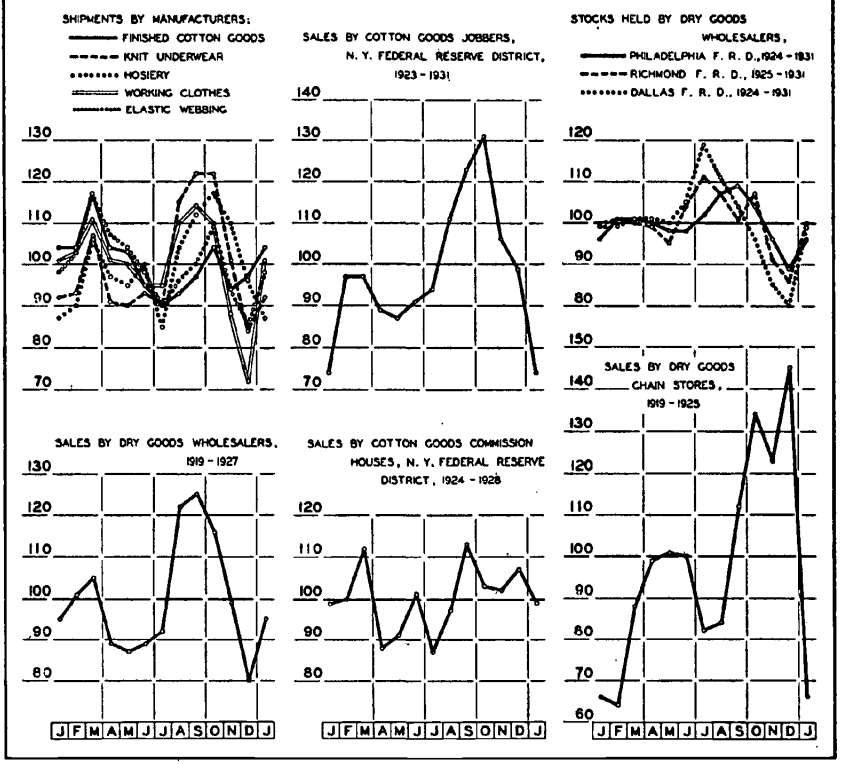
The chart presents also the indexes for shipments of all the commodities that leave the hands of cotton goods manufacturers and go, at least in large part, to the wholesalers. Although the indexes of the various goods differ in the standings for each single month, their general movement is more or less the same. There are two peaks, one in March and the other about October. The trough in all the series is in July; some have another trough in December.

While the movements of stocks in the three Federal Reserve districts are in broad correspondence, there seem to be a few genuine differences between Philadelphia on one hand, and Richmond and Dallas on the other. In the former, stocks are at peak in September and at trough in May, June and December. In the latter two, unmistakably, the peak in stocks is in July and the trough in May and December. This lead of indexes for Richmond and Dallas may be attributable to the much greater dependence of the wholesalers there upon agricultural crops. In Philadelphia the wholesalers prepare for the autumn buying by retailers who in their turn purchase mainly for December sales. In the southern states the bulk of retail buying is possible immediately after the crop is marketed, that is, the peak of the season comes much earlier. Another differ-

ence which is, on the whole, less established, is that of size. The amplitude of stocks is smallest in Philadelphia and largest in Dallas. This is as might be expected, since the Philadelphia

CHART 17

SEASONAL MOVEMENT OF COTTON GOODS IN WHOLESALE AND RETAIL TRADE



wholesalers are near the sources of their supplies and their need to prepare for the seasonal swings is much less pressing than that of the Dallas wholesalers.

The seasonal index for sales shows the two peaks that were seen so often above. It is clear in the case of wholesalers, however, that the March peak is minor and that the September

peak is the most important high point of the year's sales. This comparative standing of the two peaks was reflected at an earlier stage in the seasonal movements of the stocks.

5. Sales at Retail

No data are available on the proportion of goods bought by retailers from wholesalers. As far as cotton piece goods are concerned, a study for the year 1924 revealed that 89 per cent was bought from wholesalers.[4] It is not certain that department stores or dry goods chain stores (and they are covered by the data to be cited below) buy such a large percentage of their cotton goods from wholesalers, but undoubtedly they do buy from the latter a large portion of their supplies.

Most of the indexes that follow refer to sales by various departments of department stores. A question may be raised as to how far the fluctuations in sales by different departments of department stores reflect accurately the changes in sales by the various branches of retail trade. It might be suggested that neighborhood retail trade is less subject to seasonal swings than are department stores, which profit heavily from the holiday and seasonal trade. On the other hand, it may be said that department stores are financially more able to use advertising and special sales in order to increase the volume of business during the seasonally dull months. In the absence of definite testimony to the contrary, it may be assumed that the department stores show swings not materially different from the swings of trade in the corresponding branches of retail business as a whole.

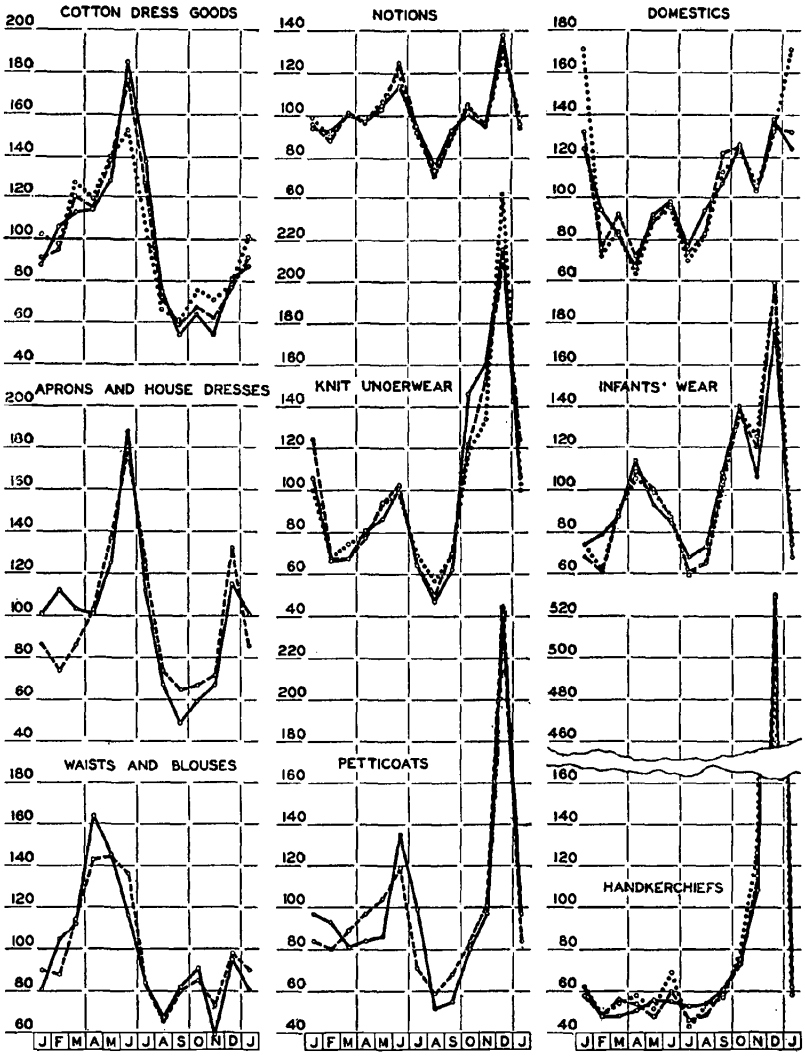
The seasonal indexes for sales of the various commodities in the group differ considerably in standing for single months, but their patterns and amplitudes show some features in common (Charts 17 and 18). Simple cotton goods (such as cotton dress goods, aprons and house dresses, waists and blouses) have peaks about May or June and a much smaller rise in December. More expensive articles have a higher peak in December when holiday buying is done. But with this difference of the relative position of the peaks, the two-peak pattern is characteristic of all groups, domestics excepted.

[4] *Distribution of Textiles,* Harvard Bureau of Business Research, no. 56, p. 5.

CHART 18

SEASONAL MOVEMENT OF COTTON GOODS FROM DEPARTMENT STORES

--------BOSTON FEDERAL RESERVE DISTRICT, 1923 – 1925
..... BOSTON FEDERAL RESERVE DISTRICT, 1926 – 1930
——— CLEVELAND FEDERAL RESERVE DISTRICT, 1924 – 1925



The conspicuous feature of the retail seasonal indexes is their large amplitude. The average deviations for cotton goods proper (excluding notions) vary from 24 to 29 and the ranges from about 100 to 180. Total sales of dry goods chains show a smaller seasonal swing, chiefly because all commodities are included and the spread of their seasonal peaks and troughs through the year serves to cancel any outstandingly large deviations from the year's average. But even in this instance the swing is considerable.

Compared with all the seasonal indexes discussed above, variations in retail sales are slighter only than those in marketings of the crop by farmers and in raw cotton exports. The seasonal amplitude in raw cotton stocks at public warehouses is of about the same width, but all the other indexes show amplitudes much milder than those in retail sales.