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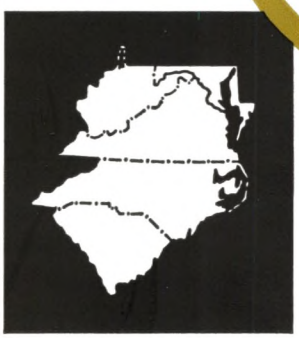
MONTHLY REVIEW

The American Textile Industry
State Revenues
Research In A Triangle: Part II
The Fifth District



SEPTEMBER 1969

THE AMERICAN TEXTILE INDUSTRY

The rapid rise of cotton mills in the South in the period of 1870 to 1890 signaled the establishment of textiles as a dominant industry in the region. Despite the destabilizing effect of intermittent periods of prosperity and depression in the industry, it has provided an important thrust over the past century to the South's economy, and has had a significant influence upon its culture. Northern textile men argued in the early days that the southern climate was unsuitable for spinning and that competent labor and managerial talent could never be found. But southern mill towns grew, and a unique textile economy emerged. Since the industry's emergence in the South, the agricultural basis of its origin has diminished in importance, and the closely related industries, apparels, chemicals, and textile machinery, have developed, providing economic stimulus of almost equal importance to the area.

Today, most major segments of the textile industry—both cotton and synthetic weaving mills, yarn and thread mills, and carpet mills—are principally located in the Southeast. Others, such as wool weaving and finishing, narrow fabric mills, and knitting mills, are more evenly spread over both the Southeast and the New England states.

TEXTILES AND THE FIFTH DISTRICT ECONOMY

The historical significance of the textile industry to the Fifth District—particularly North and South Carolina—remains a fact today despite important changes which have occurred in recent years, both in the District economy and in the textile industry. The importance of the Fifth District to the textile industry is even more striking.

The textile industry occupies a unique place in the development of the Fifth District economy. From the period immediately following the Civil War to the end of World War II, in large areas of the District, industrialization was chiefly a matter of growth in textile production. Even after the industrial diversification of District states in recent years, the industry remains the District's most important manufacturing activity. In fact, much of the diversification represents the growth of textile related industries. Moreover, the southward movement of the textile industry in the postwar period has increased the degree of concentration of the industry in Fifth District states.

In 1966, the latest date for which data are available, the five states of the Fifth District contained 47% of the production workers, and accounted for 45% of the value added in the textile industry. North Carolina, by most important measures, is first in the nation in textile production. In 1966, North Carolina had 27% of the production workers, and accounted for 25% of the value added in the industry.

The textile industry accounts for 21% of the manufacturing payrolls in the Fifth District, 37% of those in North Carolina, and 46% of those in South Carolina. Of production workers in manufacturing in the Fifth District, 29% are in textiles. In North Carolina that percentage is 44, and in South Carolina, 51. Of total value added by manufacturing in the Fifth District, 19% is in textiles. In North Carolina the percentage is 32, and in South Carolina, 43.

THE INDUSTRY'S PROBLEMS

There are a number of problems and characteristics which are unique to textile manufacturing in the United States. The American textile industry has historically been sensitive to changes in wage levels, changes in tariffs and regulations governing the import of textile products, and changes in Government price policies on cotton. The competitive nature of the industry explains the acute concern with input costs and has been an important factor in the industry's migration to the low-wage, lightly unionized southeastern states.

The textile industry has experienced more than the usual amount of difficulty in the labor relations field. Violence and bloodshed were not uncommon in the 1920's when labor unions first began major efforts to organize textile workers in what were then primarily company towns. Success of the unionization effort has been slight.

An interesting aspect of the industry has been its transition over the years from an industry characterized by a large number of small, primarily family-owned firms to a somewhat smaller number of larger firms that are more highly diversified, more capital intensive, and much more technologically sophisticated. With some notable exceptions, the ownership of most firms is now widely distributed. Over the 40-year period from 1923 to 1963, there was a 14% decline in the number of operating manufacturing establishments and a 35% decline in the number of production workers. The year 1963 is used in this comparison because it is the most recent manufacturing census year for which data are available. Value added figures are not available as far

back as 1923, but between the census years 1958 and 1963, value added increased 26% while the number of establishments and production workers continued to decline.

Imports Imports of textiles have been troublesome to American textile producers due to low wages abroad and the development of a large and efficient productive capacity in many foreign countries. The industry has repeatedly sought protection under peril-point, disruption of markets, and national security arguments. The United States negotiated the Long-Term Arrangement on trade in cotton textiles, through the General Agreement on Tariffs and Trade for a five-year period, beginning in October 1962. In 1967, the Arrangement (LTA) was extended to September 30, 1970. Under the LTA, provisions were made for a more orderly rate of growth of imports of cotton textiles. The LTA was an attempt to satisfy textile men who were fearful of the effect of unchecked imports upon the domestic industry, but at the same time to remain consistent with this country's overall policy of trade liberalization during the past decade. Textile spokesmen have not been completely satisfied with the result, however, and today are pressing for additional import controls. Diligent efforts have been made to expand exports through the Exporters' Textile Advisory Committee, made up of textile executives who advise the Government on programs for expanding exports. These efforts have failed to narrow the gap between imports and exports, which in 1968 showed a net import balance of $528 million.

The import problem stems from both unfinished or semi-finished textile mill products and apparel and related products manufactured abroad. Of course, the domestic textile industry itself is a large user of imported grey goods and other unfinished mill products. Recently, Japan, Korea, Taiwan, and Hong Kong have supplied from 60% to two-thirds of the cotton, wool, and man-made fiber textile products imported by the United States. Other nations such as West Germany, Mexico, and Brazil have developed efficient textile industries, and are increasing their sales in the U. S. as well as their participation in world textile trade generally.

It is difficult to determine the effect that imported textile goods have had upon the domestic industry. In 1966, the value of imported textile mill products was 4.8% of the value of shipments of the domestic industry; in 1963, the percentage was 4.7. In the case of apparel and related products, the percentage was 3.2 in 1966, and 2.3 in 1963. For comparison, these ratios in 1966 were 3.1 for food, beverages, and tobacco, 3.7 for chemicals and allied products, 11.7 for lumber and wood products, and 12.1 for paper and paper products.

A substantial increase in demand due to military procurement of textile goods has intensified the import problem since 1965. During that period the industry's capacity to meet total domestic demand has been severely limited. There is some evidence that a very close positive relationship exists between imports and the demand for domestically produced textiles, as well as between imports and the generally rising level of aggregate demand in recent years.[1] During the peak years of textile production, beginning with 1965, the productive capacity of the industry was not increased rapidly enough to meet the rising military component of demand and the increase in civilian demand due to general economic prosperity. Thus imports have had the effect, to some degree, of preventing sharp price increases. Prices of textiles and apparels indeed remained relatively stable from the Korean War until 1968.

One- and Two-Price Cotton A problem related to imports is that of cotton prices. During the period from 1956 through 1963, the domestic industry was required to pay a higher price for U. S. cotton than foreign purchasers paid. The two-price system resulted from surplus cotton production, and took the form of a subsidy on foreign sales of raw cotton. Imports of raw cotton were already severely restricted. The two-price system gave an added advantage to foreign manufacturers of cotton textile goods, and was widely regarded as a factor contributing to the rise in imports of textiles, and to a substantial shift by the domestic industry to synthetic fibers and blends. A one-price cotton system was restored in 1964. The immediate effect was to lower the price of raw cotton to domestic textile producers by about one-fourth, eliminating a major source of competitive disadvantage with foreign producers.

The Textile Cycle Cyclical fluctuations in the output of textile mill products were a distinguishing characteristic of the industry for many years. These textile cycles represented a complex set of destabilizing influences to which the industry was susceptible, and created serious problems for textile management. Research on the nature of the cycles, completed in 1958, revealed that they were evident in textile output data, in fairly regular two-year durations, over

[1] Wallace, William H., Naylor, Thomas H., and Sasser, W. Earl. "An Econometric Model of the Textile Industry in the United States," *Review of Economics and Statistics*, 50 (February, 1968).

the long period from 1919 to 1956.[2] They appeared to be applicable to all important components of textile output, and were apparently unique to the industry. Of particular interest was the consistency of the cycle in the face of a relatively stable end use demand.

The textile cycle now seems to be a thing of the past. It is important, however, in an analysis of the industry since it apparently was a significant factor in the industry's early instability. Its disappearance in fact reflects a number of fundamental changes which have occurred in the nature of the textile industry in the past 10 to 15 years.

There were a number of reasons for the existence of the textile cycle. The nature of the product was a relatively homogeneous and standardized cloth. There were large numbers of buyers and sellers. It was a matter of relative ease, compared to most manufacturing operations, to change the nature of the output by shifting looms and spindles from the production of one type of product to another. The fabrics in their various end uses were highly competitive, particularly in garment production. There there was the additional destabilizing influence of the industry in the earlier years. These attributes characterize an industry which is highly competitive, and therefore very sensitive to destabilizing influences generally.

To compound the problems already mentioned, which were inherent in the nature of the industry, there was the additional destablizing influence of the converter. The role of the converter was to buy the output of textile plants, and generally, to resell to producers of garments or other finished products. He typically placed large orders in anticipation of price rises or held back on orders in anticipation of price declines. He thus took advantage of the textile cycle and had the effect of aggravating it. There was no organized futures market in textiles which would ordinarily tend to moderate cyclical activity. The presence and persistence of the textile cycle tended to have undesirable effects upon firms in the industry, and was associated with the relatively high mortality rate of textile firms. It thus had detrimental effects upon localities in which the firms were located.

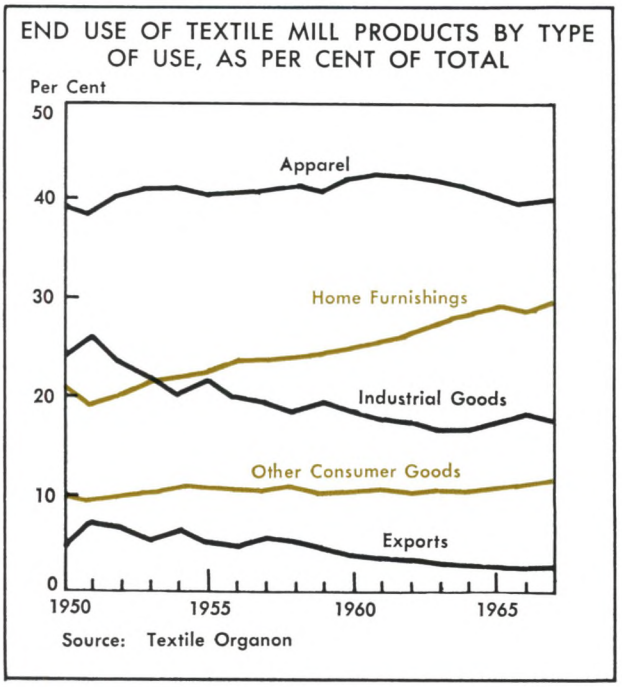
BASIC CHANGES IN THE INDUSTRY

There have been significant changes in some basic characteristics of the textile industry in recent years which have tended to bring about the demise of the cycle. These changes have not eliminated all the problems peculiar to this industry, but their effect apparently has been to cause greater short-run stability in the industry's level of operations. While it is not possible upon examining empirical data alone to state unequivocally that basic structural changes have occurred, it is at least true that recent data on textile production do not evince so clear a tendency toward the characteristic cycle that existed earlier.

Observable changes which have taken place in the structure of the industry, the nature of the inputs, and in technology, are the type which would be expected to lessen cyclical sensitivity. Though it is difficult to associate dates with these changes, the changes constitute important differences between the industry today and that of the 1950's and earlier.

The importance of the function of the independent converter has been substantially reduced through the process of vertical integration of manufacturing operations. This trend, as well as the emergence of larger firms, has been noticeable in the past two decades, even though today the largest firm in the textile industry accounts for less than 8% of the industry sales. Textile producers are now concerned with the production of more finished items and more distinctive fabrics. Product differentiation has had the effect of introducing a higher degree of monopolistic competition among textile producers.

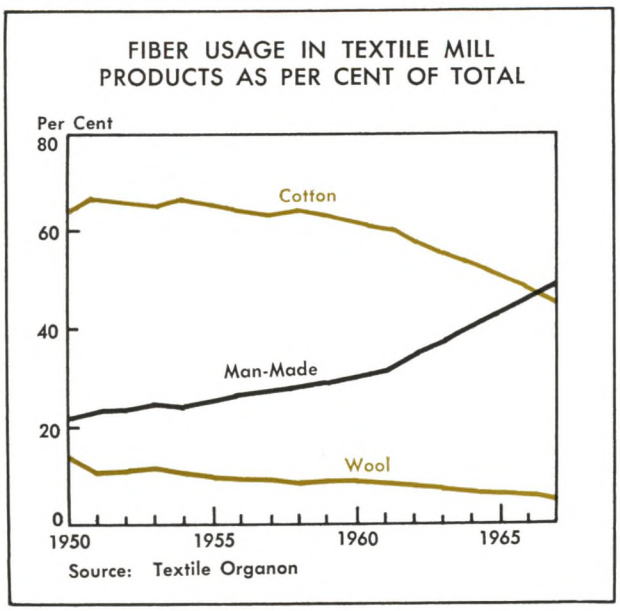
Another significant change in the industry has



[2] Stanback, Thomas M., Jr. "The Textile Cycle: Characteristics and Contributing Factors," *The Southern Economic Journal*, 25 (October, 1958).

been the introduction of new fibers. With few exceptions, end uses of textile mill products have changed relatively little. However, the change that has occurred in the type of raw material used has been significant (Charts 1 and 2). The inroads made by man-made fibers have lessened the potential impact of changes in the price of cotton upon the textile industry, and have removed to a large degree the uncertainty surrounding cotton supply. Heavier reliance on the synthetic fibers has been a stabilizing factor. Larger varieties of the given types of outputs are, of course, now available, and quality improvements have been made. The change has been mainly a matter of substitution of inputs to produce substantially the same range of basic types of outputs.

Largely as a result of the economic prosperity of the 1960's, as well as mill liquidations, excess capacity in the textile industry has been substantially diminished. Since the late fall of 1968, a slump in industry activity has occurred, associated with a decline in military demand. However, this is probably a short-run phenomenon. Also, since 1964, due to the introduction of one-price cotton and other changes, the profitability of textile firms has increased significantly. The recent higher profits have led to greater investment, but this investment has gone primarily into modernization of plant and equipment rather than to increases in capacity as such. There has been a tendency to spend heavily on research and development, and to invest in more capital intensive manufacturing processes in order to compete with lower priced imported products.



According to Department of Commerce estimates, the net value of plant and equipment in the textile industry in 1968 was about $4 billion, with an estimated $790 million being added to that by investment last year.

The textile industry would not be classified as a concentrated one. However, there has been an increase in the degree of concentration. Concentration ratios for the census years 1947 and 1954 indicate an increase from .243 to .265. These ratios are the percentages of the total value of shipments for the industry accounted for by the largest four firms. As such they are not perfect measures of the change in the degree of concentration, and probably understate the actual increase in concentration which has occurred. By 1958, the ratio had increased to .288. Comparable figures for later years are not available, but there is evidence that the degree of concentration is continuing to increase. Some recent research has revealed a significant correlation between the decline in employment in the textile industry and the increase in concentration.[3] To the extent that this relationship, which was based on the change from 1947 to 1954, remains valid, it might be expected that the continually declining textile employment would signify further increases in concentration.

There was, moreover, an average decline in the number of textile manufacturing establishments of 1.8% per year over the period 1954 to 1963, and for the same period an average decline in the number of firms of 1.6% per year. These declines were accompanied by an average increase of 3.3% per year in value added in textiles. Even though there are fewer but larger establishments producing a greater output, the average size of the nearly 7,000 which remain is still small.

The increase in concentration has been facilitated through better management skill in larger firms, as well as by the development of patents and the introduction of new techniques of production. As in most industries, breakthroughs along these lines are of necessity limited to the larger firms which can afford them. A transition from family ownership to public ownership and control of a number of textile firms has taken place.

The U.S. textile industry is a fundamentally important one, which in spite of its severe problems, has remained essentially responsive to basic consumer and industry needs. While many of its difficulties persist, many have been resolved, and its resiliency today is unquestionably improved.

William H. Wallace

[3] Nelson, Ralph L. *Concentration in the Manufacturing Industries of the United States.* New Haven: Yale University Press, 1963.