

TEXTILE INDUSTRY IN INDIA

BY

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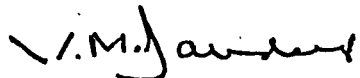
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(Title)

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(Supervisor)

TEXTILE INDUSTRY IN INDIA

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INTRODUCTION

A number of good studies are available on India's textile industry. Therefore, the choice of the subject for the present research needs some explanation.

Among the several studies of the Indian Cotton Textile Industry, the foremost is M.P. Gandhi's celebrated work "The Indian Cotton Textile Industry - Its Past, Present and Future." It was first published in 1930 and revised in 1937. It covers the period from 1850 to 1937 and gives a comprehensive account of the growth of the mill industry as also the development of handloom industry during this period. The second notable study is N.H. Thakkar's "The Indian Cotton Textile Industry During the Twentieth Century". It was published in 1949 and covered the period from 1914 to 1945. It is a detailed study of the development of the mill industry during this period but makes no reference to the handloom industry. The third study, rather different from the above two, is S.D. Mehta's "The Indian Cotton Textile Industry, an Economic Analysis." It was published in 1953 and covers the period from 1850 to 1950. Its special feature is that it is primarily a techno-economic study of the equipment pattern, costs, organisational set up, marketing structure and financial aspects of the industry and focusses attention on the mill industry.

The three major studies mentioned above, published as

they were before 1953, naturally cover the period upto 1950. Developments since then are covered in V.B. Kulkarni's study "History of the Indian Cotton Textile Industry". The study was sponsored by the Bombay Millowners' Association and was published in 1979. The development of the textile industry since 1950 has been greatly regulated and directed by a public policy aimed at limiting the mill industry and protecting the handloom industry. Kulkarni's study gives a good account of these developments but rather selectively from the millowners' point of view.

The present study of the textile industry in India is intended to fill what are perceived as major gaps in the existing literature on the subject. Most importantly, it attempts to give a connected account of all sectors of the industry, namely, mills, powerlooms, handlooms and khadi. We have tried to give a well-connected account of the historical evolution of each sector upto 1950, the development of policy during 1951-1980, its achievements and failures and an analysis of the performance of each sector during 1951-1980. Taken together, the study constitutes what may be described as a contemporary history of the textile industry in India.

The study falls into three main sections. The first section gives the early history of the cotton mill industry upto 1950. As already mentioned, this ground has been covered earlier by M.P. Gandhi upto 1937, by N.H.

Thakkar with reference to the period 1914-1945 and by V.B. Kulkarni right upto 1950. We have, however, found it necessary to go over the ground again. We hope that our account is an improvement over the earlier studies and is better supported by well-articulated statistical data.

The history falls into three parts. The first part, covered in Chapter I, narrates how, with the development of textile technology in England during the later part of the eighteenth century, India lost her erstwhile position as leader in the textile field. In a brief period of less than two decades following this, India's exports of cotton goods to England declined drastically while, on the other hand, her imports of British cotton goods increased greatly. The reversal of the relative position of India and England was, in the final analysis, due to the technological advance made in England in which India was left behind. But it was greatly hastened by the imperial trade policy of England. The statistical data and other evidence relating to these developments have been cited chiefly from Romesh Dutt's 'Economic History of India'.

The first cotton mill industry in India was established in 1818, only two decades after the establishment of the first spinning and weaving mills in England. The story of the early establishment and growth of the mill industry upto 1925 is narrated in Chapters II and III. The development of the industry during this period was practically unaided by State policy. Depression conditions

in the industry during 1923-1926 led to a demand for protection by the Bombay Millowners' Association, and in 1930, the industry was granted protection under the Cotton Textile Industry (Protection) Act of that year. The protection was finally withdrawn in 1947. The progress of the mill industry during the period of protection is traced in Chapter IV. In Chapter V we conclude the historical section with an account of the developments in the war and post-war years, that is 1940-1950.

We have tried to build continuous statistical series for the historical period with reference to growth in capacity, production, foreign trade and domestic consumption from data provided by the Bombay Millowners' Association, Statistical Abstract Relating to British India, Review of Trade of India and Report of the Textile Enquiry Committee (1954). Although the availability of statistics on all these counts is fairly adequate for the period 1901-1950, the same cannot be said for the period prior to 1901. Production statistics in particular, are available only from 1896 onwards. However, we have tried to make the best use of the available data.

The second section discusses the development of textile policy since Independence. A major goal of this policy has been to promote the textile industry in its decentralised sectors, namely khadi, handloom and powerloom. With reference to handloom and powerloom, we have distinguished two phases in the evolution of policy:

the protection and promotion of handloom, and the transition from handloom to powerloom. These are covered in Chapters VI and VII respectively. In Chapter VIII we have traced the evolution of the policy with reference to khadi. As a background to policy development we have summarised the historical development of each sector. The evolution of the policy is traced by reference to the reports of the various committees appointed by the Government from time to time and other relevant documents.

The third section attempts an evaluation of the performance of the several sectors of the industry, namely mills, powerloom, handloom and khadi during 1951-1980. In Chapter IX we have dealt with the performance of the mill industry. This is done with reference to growth in capacity, capacity utilisation, production and employment in spinning, weaving and processing and financial aspects. We have also included an evaluation of the performance of mills under the National Textile Corporation. As far as possible we have tried to build the relevant statistical data into continuous series for the entire period 1951-1980. Our sources of statistical data are the Indian Textile Bulletin, publications of the Indian Cotton Mills' Federation, Financial Statistics of Joint Stock Companies in India published by the Reserve Bank of India, Public Enterprise Survey published by the Bureau of Public Enterprises and annual Reports of the National Textile Corporation. On the whole, fairly exhaustive data are

available with reference to the mill industry on a regular basis, though the data relating to financial aspects have many limitations.

In Chapter X we have dealt with the progress of the decentralised sector consisting of handloom, powerloom and khadi. The *raison d'être* of protecting and promoting these sectors is their great employment potential. Hence, we have attempted to evaluate the performance of each of these sectors by relating the direct and indirect assistance given to these sectors in the form of excise concession, rebates and subsidies to the additional employment and wage bill generated in them. We have also tried to assess the performance of Spinning and Weaving Co-operatives in the decentralised sector.

The data relating to the decentralised sector are not as complete or satisfactory as in the case of the mill industry. However, we have made the best use of the available data, which are often culled from the reports of various committees appointed by Government, the Five Year Plan Documents and similar sources. With reference to the development of co-operatives, however, the 'Statistical Statements Relating to Co-operative Movement in India' published by the Reserve Bank of India are quite adequate.

Finally, in Chapter XI we have given an overview of all the sectors of the textile industry taken together and assessed the aggregate performance with reference to

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production and exports. We conclude with estimates of domestic per capita availability of cloth and an assessment of efforts to supply cheap cloth for mass consumption. We hope that all in all, the study makes a worthwhile contribution to the available literature on the subject.

CHAPTER I
END OF AN ERA

It is believed that cotton manufacturing originated in India probably around 3000 B.C. Not only the earliest use of cotton, but also the first cotton gin and the first spinning wheel for spinning cotton yarn are believed to have been invented in India. After cotton is harvested in the form of a cotton boll, the lint has to be separated from the seed so that it can be used to manufacture cotton thread. The first cotton gin, used for this purpose, was the Indian charkha gin. It consisted of two rollers turned by hand, positioned so closely together that the seed would not pass through. The charkha gin was suitable only for ginning the short fibre of Indian cotton. In other parts of the world, where longer fibre cotton was grown, the separation of the lint from the seed was done by hand.

After cotton is ginned, it is spun into a thread. In early times, spinning was done with the use of two simple implements, the distaff and the weighted spindle. The distaff was a stick on which a mass of fibre was held. The weighted spindle could be suspended and, when given a spin, it twisted the fibres from which it was suspended. The yarn lengthened as more fibre was supplied from the distaff to the notch at the top of the spindle. At a certain stage, the already spun yarn was wound round the shaft of the spindle, and so a hank of yarn was built up.

The evenness and thickness of the yarn depended on the skill of the spinner.

The spinning wheel is constructed by mounting the spindle on bearings and by turning it by means of a pulley going to a large wheel. The power was thus mechanized and the whirl of the spindle supplanted the spinning of the wheel. In this way, not only was the process speeded up, but a more uniform yarn was obtained. The spinning process, however, was not continuous, since after a length of yarn had been drawn out, the wheel had to be reversed a few turns to replace the tight spiral round the spindle so that it could be wound on the base of the spindle.

The Saxony wheel was invented by Jurgens of Brunswick, in Germany, about 1530. He used a device called a flyer which had a U shape. The flyer was attached to the spindle, with the arms of the U on either side of the spindle. The spindle also held a freely rotating bobbin. The yarn being twisted passed through the base of the U, then along the arm, round a hook, and then on the bobbin of the spindle. Both spindle and bobbin were driven from the wheel, and the yarn wound round the bobbin as it was being spun. The wheel was turned by a treadle, leaving both hands free to draw out the material during the spinning.

The Indian spinning wheel and the Saxony wheel were the chief means of spinning cotton into yarn before the advent of mechanized spinning.

To produce a woven fabric, yarn or fibre is interlaced in a regular order called a weave or binding system. Weaving is the process of combining warp (lengthwise threads) and weft (widthwise threads) components to make the woven fabric. Long before man learnt to spin fibre into yarn, he knew the art of weaving. Woven fabrics are believed to have originated from basket weaving. The earliest evidence of weaving, closely related to basketry, dates from Neolithic cultures of about 5000 B.C.

Weaving involves three primary operations: shedding, picking, and beating in. In shedding, the warp is separated over a short length extending from the cloth already formed, into two sheets; the distance between which is called the shed. A pick of weft is then laid between the two sheets of warp, in the operation known as picking. Then the pick is beaten in, that is, pushed tightly into the weave, and the upper and lower sheets change place so that they hold the pick in the weave.

A loom is a device which permits the warp to be tensioned and parted into two layers. The earliest loom probably comprised sticks in the ground to hold the threads, with the operations carried out by hand, making weaving a slow and laborious process, analagous to darning. Later, shed sticks were invented to form the shed and keep the threads separate. The next and probably the most important improvement was the invention of the heddle or heald shaft. The heddle might have

first been just a stick with a hole in it, later it became a piece of wire with an eye in it, and still later, a metal strip with a slit. A warp end is threaded through the heddle and, with its aid, the thread is deflected from one side of the other of the main sheet of threads. The frame holding the heddle is called the harness. The shed is formed by raising or lowering the harness.

On primitive looms the pick is passed back and forth through the shed by hand, with the thread wrapped round a stick. The beating in is done by the reed, a screen or grate, so-called because it is made of reeds. The spacing of ends in the cloth is also controlled by the reed. The batten or sley operates the reed. There are several ways of providing tension to the warp. On the weighted loom, the warp threads are hung over a crossbar with weights of clay, ceramic or chalk tied to the free ends. In the backstrap loom, the operator has a strap tied round his back and he adds tension by leaning back.

The heddles and the pick stick were operated by hand until recent times, except that a single harness could be operated by foot, an innovation that first appeared in the East. In Europe, throughout the mediaval period, looms were simple machines, but about the thirteenth century, the shaft loom arrived from the East. To this a number of heddles can be fitted; they are suspended above the loom from a shaft and can be operated by a treadle. This makes possible more weaving patterns because each shed

variation can have its own heddle rod.

The drawloom, also an Oriental invention, and introduced in Europe during the Middle Ages, was an improvement over the shaft loom in that it could weave even more intricate patterns. The drawloom could make a great variety of sheds because it used slipcords tied to the threads in addition to heddles. They were operated by a drawboy who sat on top of the machine and pulled the cords in various combinations according to the pattern.

Handlooms now surviving in India and other developing countries are of these several types. The modern high-speed industrial loom works on essentially the same basic principles.

Yarn and cloth were dyed from very early times. It is known that fabrics were dyed in India many centuries before Christ. Printing, the process of decorating textile fabrics by application of pigments, dyes or related material in the form of a pattern, apparently developed from hand painting of fabrics. The idea was first carried out in India during the 4th century B.C. The Greek writer Strabo, who died in 20 A.D., has described the printed textiles from India.

By the Middle Ages, fabric making and other related arts were not only known to the greater part of the civilized world, but the textile industry had reached the stage of a highly developed craft. Many countries had thriving industries in silk and carpet-making, brocades,

velvets and wollens. But the skill and dexterity of her spinners gave India an edge over the others in cotton textiles. The fine muslins produced in Moghul India, and perhaps earlier, the calicoes, chintzes and other richly patterned, printed and painted cotton cloths were inimitable, making India the leader in the field for, it is believed, thirty centuries, from 1500 B.C. to 1500 A.D. The market for Indian fabrics was world wide. In Europe, Indian cottons were considered a luxury, and at least from the Roman era to the Middle Ages, India exported large quantities to Europe. During the fifteenth century, the land routes for the Indian trade- via the Red Sea and Egypt, or across Persia, Iraq, Syria, and Turkey - had become increasingly blocked, mainly by Turkish action. But soon enough, that is, in 1497, when the Portuguese navigator Vasco da Gama took an expedition to Calicut via the Cape of Good Hope, a new sea route from Europe to the East was discovered, enabling the European powers particularly the French, the Dutch, the Portuguese and the English, to make new trade ventures.

Beginning with 1601, the East India Company set up factories and workshops in traditional centres such as Ahmedabad, Broach, Surat, Cambay, Calicut, Masulipatam, Agra and Delhi, employing Indian weavers to weave cotton goods for export to England. From the seventeenth century to the middle of the eighteenth century there was a phenomenal expansion of the Company's shipments of cotton

goods to England. In 1677 these were valued at £150,000, during 1697-1702, at £1,053,725. England's indigenous textiles in those times consisted chiefly of linen and wool, while all the cotton textiles sold in London and other English towns came more or less directly from India. Demand for cotton materials and flowered fabrics from India, either painted or printed, grew rapidly and threatened the English woollen industry, and, beginning with the 1670's, complaints and protests were made. Public opinion in England was attacking the wasteful exports of money to pay for these goods, and the woollen weavers complained bitterly of the 'ruin' which the imports of Indian cloth caused, for evidently they were used to replace woollen products. In 1799 a systematic opposition was organised and in 1700 the Parliament passed an Act forbidding absolutely the imports of printed fabrics from India, Persia and China. All goods seized in contravention of this edict were confiscated, sold by auction, and re-exported. In 1719, another prohibition Act was passed, much more explicit and far-reaching than the first. Under this Act, all persons resident in England were forbidden to sell or buy imported fabrics, or to wear them or have them in their possession, under penalty of £ 5 for private persons and £ 20 for merchants. The English example was followed in Holland, and in fact, nearly all the Governments of Europe thought it necessary to prohibit or load Indian imports with heavy duties to protect their own

manufactures.

With the stoppage of imports of Indian materials, the English weavers tried to meet the demand for them by producing substitutes. But the English spinners lacked the supple fingers and the extraordinary skill of Indian workmen. The counts they spun were either too coarse or too weak to be used for the warp. The custom therefore grew of making materials of mixed linen and cotton. The linen thread, being stronger, formed the warp, and the cotton, the weft. Printed by hand with engraved plates, the English manufactures were able, if not to rival those of India, yet to serve as more or less acceptable substitutes.

But soon, the relative positions of India and England in the textile industry reversed. Beginning with 1733 a series of inventions in textile technology revolutionized the production methods in the textile industry in England and England became the leader in the textile world. The first of these inventions was that of the fly-shuttle by John Kay. Kay was a weaver of broadloom fabrics which, because of their width, required two weavers to sit side by side, one throwing the shuttle from the right to the centre, the other reaching between the warps and sending it on its way to the left and then returning it to the centre. The stopping of the shuttle and reaching between the warps caused imperfections in the cloth. Kay devised a mechanical attachment controlled by a cord which, when

jerked by the weaver, gave the shuttle a push sending it flying through the shed. Jerking the cord in the opposite direction sent the shuttle on its return trip. Thus, the job could be done by one weaver instead of two. In other words, productivity per weaver almost doubled.

Kay's fly-shuttle was patented in 1733 and immediately raised fears of unemployment among the weavers. Another circumstance added to the difficulties of the weavers. With the throw-shuttle loom, a single loom provided work for five or six spinning wheels. In spite of imports, there was an almost constant shortage of yarn. With the fly-shuttle weaving could be done much faster, and this shortage of yarn became more acute. Not only did the price of yarn go up, but it was often impossible to obtain the necessary supplies, causing great hardship to the weavers. But, the shortage of yarn made improvements in spinning imperative and many inventors began to consider the possibility of a multiple spindle spinning machine. A roller spinning machine was designed by John Wyatt and Lewis Paul and patented by Paul in 1738. But because of shortage of capital and lack of business sense, it did not become commercially profitable.

The wide gap between spinning and weaving continued to pose a serious problem. Many attempted a solution which was finally given by two inventions produced within a year or two of one another: the invention of the jenny by Hargreaves in 1765, and of the water frame by Arkwright

in 1767. Both came into use in 1768. Hargreave's jenny was patented in 1770, while Arkwright's machine was patented in 1769.

Based on the principle of the old spinning wheel, Hargreave's machine was simple in its original form, both in structure and operation. It consisted of a rectangular frame of four legs. At one end was a row of vertical spindles. Across the frame were two parallel woollen rails which served as a clasp between which a mass of fibre could be enclosed. The rails were mounted on a sort of carriage which slid backwards and forwards when desired. The clasp was opened to feed carded or roved cotton and then closed. With one hand the spinner worked the carriage backwards and forward, and with the other he turned the handle which worked the spindles. In this way the thread was drawn and twisted at the same time. The jenny's one great advantage over the spinning wheel was that a single workman could spin several threads at once. Hargreave's original jenny turned eight spindles. Larger ones were soon built, with sixteen spindles in 1770, 80 spindles in 1784 and later with as many as 120 spindles. It meant so many fold increase in the productivity of the spinner.

Being a small machine, the jenny could be built at small cost. It took up little room, and could be operated without any motor power. It was found in small workshops managed by small employers who worked with their own hands as well as in farms where the spinning wheel had for

generations added its earnings to those of the plough. Its use did not interfere with the worker's habits. Outwardly, at any rate, it did not cause any great alteration in the organisation of the industry. Far from destroying the cottage industry, it seemed at first to revive it. Yarn could now be supplied in adequate quantities but for the weft thread only; being a hand operated machine, the jenny could not spin a cotton yarn strong enough to be used for the warp. Subsequent developments, however, soon heralded the factory system in spinning.

Arkwright's 'water-frame', a machine that spun threads by means of rollers revolving at different speeds, pioneered cotton spinning into the factory stage. The machine was first called the water frame because it was driven by water-power, and later the throstle-frame because of the whistling sound made by the flyers. Made entirely from wood, the water-frame was a factory machine from the beginning. It was originally designed to be horse operated, but came to be operated first by water and then by steam. This was the first real departure from domestic industry. While in the cottages Hargreave's jenny was taking the place of the old time spinning wheel, in towns such as Nottingham and Manchester, Arkwright's spinning mills were built. A noted example is that of the Cromford Spinning Mill, which by 1799 contained several thousand spindles and employed three hundred workmen.

The water-frame's advantage over the spinning wheel was not only in higher productivity but also in a superior quality of yarn. The "water-twist", namely the yarn spun on this machine, was strong enough to be used for the warp. Therefore, it now became possible for English manufacturers to weave pure cotton goods which were as good in every respect as their Indian models.

Though the 'water-frame' was a great success, the yarn it produced was rather coarse. Hence, it did not displace the 'jenny' which continued to be used extensively. But, while the water-frame produced a strong but coarse yarn, the 'jenny' produced a fine but weak yarn. Both the yarns were not suitable for the manufacture of fine quality cottons and muslins and their manufacture continued to depend upon imported Indian yarn. This dependence was broken by the invention in 1779 of Crompton's 'Muslin Wheel'. It was a cross between the 'jenny' and the 'water-frame' and hence came to be known as the Crompton's 'Mule'. From the 'jenny' it borrowed the moving carriage and from the 'water-frame', the rollers between which the thread was to be drawn.

Crompton's Mule was initially a hand-operated machine made of wood. Its small size made it suitable for cottage industry. In 1792, Henry Stone substituted iron for wood and William Kelly invented a power 'mule' with three to four hundred spindles. From then on, the 'mule' became the spinning machine par excellence, displacing both the

'jenny' and the 'water-frame', and finally taking the spinning industry from the cottage to the factory. 'Mule'-spun yarn proved superior in quality to any yarn hitherto known and made Lancashire and Clydeside the centres of an industry which accounted for half the British export trade in the first half of the nineteenth century, thus undermining the centuries-old cotton manufacturing industry of India. In a sense, the 'mule' was the final invention in spinning technology, for inspite of many later modifications and improvements, its main characteristics are still to be found in the delicate and complicated spinning machinery of today.

While the 'mule' thus moved the spinning to the factory, for many years the weaving continued to be a handicraft occupation. There was no longer a scarcity of yarn; indeed, there was an abundance of it. Weavers were fully employed and their wages rose steeply. So great was the imbalance between yarn output and weaving capacity that yarn had to be exported. This gave rise to some alarm as many people feared that a weaving industry supplied by English yarn might be set up in the neighbouring countries particularly France. The need to improve the productivity of the loom became urgent.

This was met by Cartwright's invention of the powerloom in 1785. In 1787, he opened a factory powered by steam; but it failed. Powerlooms became commercially successful first in 1793. Modifications by Horrocks,

Radcliffe and Roberts ultimately made possible the successful erection of weaving mills in England.

During the closing decades of the eighteenth century, the powerloom was both necessary and unpopular. In 1900, against the several million spindles already at work in the spinning mills, there were in all England no more than a few hundred powerlooms. But the results were plainly visible. Two steam looms, looked after by a fifteen year old boy, could weave three and a half pieces of material, while in the same time a skilled weaver using the fly-shuttle wove only one. Despite the obvious advantage, the powerloom could not force itself into general use because the fall in weavers' wages had made the demand for mechanical spinning less urgent. The Report of the Royal Commission on the conditions of handloom weavers (1839) illustrates both, the growth of the machine industry in weaving, and the causes owing to which its final triumph was delayed. The appalling misery of the weavers who still used handlooms became worse and worse as the grinding competition of machinery increased. But the worse it became, the more it delayed the universal use of the new equipment, for wages sunk so low that it paid better to use men than machines. There lies the explanation of the survival of a belated technique in small domestic workshops, the last home of the seating system.

But the obstacles which machinery raised against its own progress could never be anything more than temporary.

After 1830, the number of handloom weavers began to fall very rapidly. It is estimated that in 1830, there were 220,000 handlooms in England; by 1844-45, the number had declined to 60,000; by 1856, the number had become insignificant. During these years, handloom weavers were among the most pitiable victims of technological obsolescence.

During this period, technical improvements were made in related processes such as ginning, carding, printing, etc. The modern cotton gin was patented in the United States by Whitney in 1794. His machine consisted of a wooden roller encircled by rows of slender splines which projected through the bars of a metal grid. As the splines drew the lint through the grid, the seeds could not pass. The splines were cleaned by a revolving brush called the doffing brush. A later improvement on Whitney's machine substituted circular saw blades for the spiked roller. Roller gins are more suitable for long staple cotton while saw blades are more suitable for short staple cotton.

Revolution in printing of fabrics took place when in 1783 Thomas Bell replaced engraved printing plates laboriously applied by hand by copper cylinders. One revolving press could now do the work of a hundred men. Soon large calico printing works were erected in Lancashire and elsewhere.

Meanwhile the bleaching and dyeing industries were reaping the benefits of scientific progress. Berthollet's

discovery of the bleaching properties of chlorine dates from 1785 and was almost immediately taken up by John Watt who made it known in England. Its adoption meant that bleaching of cloth could be done in days within the factory instead of months in the sun. About the same time Taylor of Manchester rediscovered the secret of Oriental dyes and produced 'Turkey reds' which soon became as popular as Indian prints. Velveteen also made its appearance owing to John Wilson of Ainsworth. The Frenchman, Jacquard invented a pattern-weaving loom in 1801. Several such secondary improvements added to the efficiency of the industry.

These technological advances gave England a lead into the world textile market. In Table 1.1 are shown England's exports of cotton goods to ports east of the Cape of Good Hope. Ports east of the Cape of Good Hope during this period meant mostly India. The imports of these cheap machine made goods were subject only to a small nominal import duty and hence began to compete out India's handloom textiles from India's own domestic market. On the other hand, high tariff duties were raised to protect the British textile industry from India's fine handloom textiles. In consequence, India's textile exports to England rapidly declined. In Table 1.2 are shown the Indian cotton piece-goods shipped from the port of Calcutta during 1800-1829.

A similar decline took place in the export of Indian

Table 1.1 : Value of cotton goods imported from England to Ports east of Cape of Good Hope (1794-1813)

Year ending 5th January	Value of English imports £
1794	156
1795	717
1796	112
1797	2,501
1798	4,436
1799	7,317
1800	19,575
1801	21,200
1802	16,191
1803	27,876
1804	5,936
1805	31,943
1806	48,525
1807	46,549
1808	69,841
1809	118,408
1810	74,695
1811	114,649
1812	107,306
1813	108,824

Source: R.C. Dutt, Economic History of India, Early British Period, p.257.

Table 1.2 : Exports of cotton piecegoods from Calcutta Port to the United Kingdom - 1800 to 1829.

In bales of 369 lbs.			
Year	Exports	Year	Exports
1800	2,636	1817	1,904
1801	6,341	1818	666
1802	14,817	1819	536
1803	13,649	1820	3,186
1804	9,631	1821	2,130
1805	2,325	1822	1,668
1806	651	1823	1,354
1807	1,686	1824	1,337
1808	237	1825	1,878
1809	104	1826	1,253
1810	1,167	1827	541
1811	955	1828	736
1812	1,471	1829	433
1813	557		
1814	919		
1815	3,842		
1816	2,711		

Source: R.C. Dutt, Economic History of India, Early British Period, p.295.

cotton piecegoods to other countries of the world, notably America, Denmark, Spain, Portugal, and various markets in Asia. Exports to America declined from 13,633 bales in 1801 to 258 bales in 1829; Denmark, which took 1457 bales in 1800, never took more than 150 bales after 1820; Portugal, which took 9714 bales in 1799, never took over a thousand bales after 1825; and exports to the Arabian and Persian Gulfs, which rose to between four and seven thousand bales between 1810 and 1820, never exceeded two thousand bales after 1825.

Until 1813, the East India Company had the monopoly of the Eastern trade. When in 1813 the Charter of the Company was renewed, the monopoly was abolished and private trade was allowed. In the following two decades, the British imports of Indian cotton goods declined steeply and the British exports of cotton goods to India increased phenomenally. The following figures were supplied by Mr. Larpent, Chairman of the East India and China Association, to a Select Committee of the House of Commons.*

* Quoted by R.C. Dutt, in "The Economic History of India in the Victorian Age," p.108.

Table 1.3

Year	Export of Indian cotton goods to England in pieces	Import of British cotton goods into India in yards
1814	1,266,608 pieces	818,208 yds.
1821	534,495 "	19,138,726 "
1828	422,504 "	42,822,077 "
1835	306,086 "	51,777,277 "

As imports and exports are given in different units, they are not directly comparable. But the fact of a steep decline of British imports and phenomenal increase in British exports are clear. Within two decades, the British imports of Indian cotton goods declined to less than a quarter while British exports of cotton goods to India increased over sixty times.

Another witness, Mr. Martin, giving evidence before the same Committee gives the following figures:*

Table 1.4

Year	Exports of Indian cotton goods to England	Imports of British cotton goods into India
1815	1,300,000	26,300
1832	100,000	400,000

* Quoted by R.C. Dutt, in "The Economic History of India in the Victorian Age", p.112.

Thus in a brief period of less than two decades. India's imports of British cotton goods increased 15-fold while India's exports to England declined to one thirteenth. In consequence, while in 1815 exports were 50 times imports, in 1832 imports were four times exports. Relative positions of India and England in the textile world were completely reversed.

The imperial pressure under which this reversal was expedited is best brought out in the evidence given before the Select Committee mentioned above. When the East India Company's Charter was renewed in 1833, it was provided that the Company should thenceforth "discontinue and abstain from all commercial business", and should stand forth only as administrators and rulers of India. This changed the Company's relation with India and in 1840, that is within seven years of the change, the Company presented a petition to Parliament that the discriminatory custom duties on imports on Indian goods should be removed. A Select Committee of the House of Commons referred to above was appointed to report on the petition. Several witnesses emphasised how the discriminatory custom duties were injuring the Indian industries. We may quote Mr. Martin: "We have during the period of a quarter of a century compelled the Indian territories to receive our manufactures; our woollens duty free, our cottons at 2½ per cent, and other articles in proportion; while we have continued during that period to levy almost prohibitory

duties, or duties varying from 10 to 20, 30 to 50, 100, 500 and 1000 per cent upon articles, the produce of our territories. The decay and destruction of Surat, of Dacca, or Murshedabad, and other places is too painful a fact to dwell upon. I do not consider that it has been the fair course of trade; I think it has been the power of the stronger exercised over the weaker."*

To conclude: Within a quarter of a century from the invention of the power 'mule' by William Kelly in 1792 and the first commercially successful application of Cartwright's power-loom in 1793, India lost ground to England in the field of cotton textiles and the long era of the supremacy of Indian textiles ended. In the final analysis, this was due to the technological advance made in England and in which India was left behind. But the process greatly hastened by the imperial trade policy of England.

* Quoted by R.C. Dutt, in "The Economic History of India in the Victorian Age", p.112.

CHAPTER IIESTABLISHMENT OF COTTON MILL INDUSTRY: 1850-1900

The first cotton mill industry in India was established in 1818, that is, within two decades of the establishment of the first spinning and weaving mills in England. It was promoted by a British merchant named Henry Gouger at Fort Gloster, fifteen miles from Calcutta. But it was not a commercial success and, for many years, no new undertaking was attempted. Mr. Gouger had appeared before the Select Committee of the House of Commons mentioned in the previous chapter. His evidence refers to his mill in which which: '700,000 lbs. weight of yarn was annually spun, of numbers varying from 20 to 50. The cotton used was all grown in India and selected with great care, and the machinery was worked by Indian labourers under European superintendence. There were 100 powerlooms, but their use was discontinued in order to employ the whole of the power steam for the manufacture of yarns which was more profitable. The lower numbers sold rather better than English yarns, and the higher numbers on a par with them. But on the whole the profits of the business were not proportionate to the enormous cost.' 'I am inclined to think', said Mr. Gouger, 'there never will be another manufactory for spinning cotton yarns, in consequence of the great expense attending the building of the present one'.*

* Quoted by R.C. Dutt/ ^{in "The} Economic History of India in the Victorian Age," pp. 106-107.

The development of the modern cotton textile industry in India began with the promotion of the Bombay Spinning and Weaving Mill in 1851 by Cowasjee Nanabhoy Davar. The mill was partially owned by an Englishman and the technique and personnel were unmistakably Lancastrian in character. It does not appear to have been in working order till 1854. At the same time, James Landon, an Englishman, erected the Broach Cotton Mill at Broach. Four years after the commencement of the Bombay Spinning and Weaving Mill the Oriental Spinning and Weaving Company was started by Manockjee Nusserwanjee Petit. The success of this mill led his son, Mr. Dinshaw Manockjee Petit, to start the Manockjee Petit Mills in 1860. Four other new mills were also established in 1860: the Bombay United Spinning and Weaving Co., established by Mangaldas Nathubhai, the Bomanji Hormusji Spinning and Weaving Mill set up by Bomanji Wadia, the Royal Mill set up by Kesowji Naik, and the Great Eastern Spinning and Weaving Mill set up by Merwanji Bhavnagri and Pallonji Kapadia. In 1861 Ranchhodlal Chotalal started a mill in Ahmedabad with the help of James Landon. Among the early Indian pioneers, the role of the Parsi merchants was dominant.

The decade 1860-70 was not favourable to the growth of the Indian mill industry. The American Civil War (1861-65) caused a setback. In the course of some forty years prior to the Civil War, owing to the superiority of her long staple Sea Island cotton and the successful use

of Whitney's new saw-gin, the United States had firmly established her position as the largest supplier of raw cotton for the Lancashire cotton mill industry. India's exports of raw cotton, on the other hand, were insignificant, forming only a small part of England's imports. With the outbreak of the American Civil War, cotton supplies from the United States were practically cut off, and Lancashire manufacturers began to depend on India for raw cotton supplies. During the war years, the price of raw cotton rose by more than threefold, from 3-7 pies per lb. in 1861 to 11-5 pies per lb. 1865, and while this brought huge profits to all directly or indirectly involved in the cotton trade, cotton manufacturing activity in the country was adversely affected. Cotton cultivators had been quick to seize the opportunity of making extra profit and the exports to U.K. more than doubled, from 562,738 bales in 1861 to 1,399,514 bales in 1865. Reportedly, during the boom, wealth estimated at 81 million pound sterling poured into Bombay. Following the cessation of the American Civil War in 1865, supplies of American cotton to Lancashire were resumed, causing a severe trade depression in Bombay. The collapse of credit was so complete that normal conditions were not restored till 1871. During the six years 1865 to 1871, only one new mill was added to the existing thirteen mills in Bombay Presidency.

The wealth accumulated by the Parsi and Bhatia

merchants in the days of the cotton boom duly found its way into cotton manufacturing activity in the course of the following decade. As soon as trade confidence was restored, there was a great increase in the number of mills. One notable phenomenon of the decade of the 1870's was the Bhatia merchants' coming into eminence in the cotton industry. The Morarji Goculdas Mill, which was ordinarily a jute and wool factory, was converted into a cotton spinning and weaving mill in 1870 by Morarji Goculdas, a Bhatia merchant. The Khatau Mills, which were started in 1874, were also operated under the control of Bhatia merchants. But the Parsis remained foremost among Indian industrialists. The Empress Mill at Nagpur, promoted by Jamshedji Nusserwanji Tata in 1874, gave India its first large scale cotton mill organised along scientific and modern lines. It had the best and newest machines. The factory started operations in July 1877 with 15,552 throstles, 14,400 mule spindles and 450 looms.

Between 1870 and 1875 at least 17 new mills were started and in the latter year, the number of spindles and looms had gone up to 750,000 and 8,000 respectively. An important factor which had contributed to the growth of the industry during this period was the beginning of an export trade in yarn with China.

That the first few cotton mills located in India should be erected in Bombay is probably accounted for by the fact that Bombay, as one of the two most important

ports in India, had always held a very large share of the import trade in yarn and piecegoods, and was the chief exporting port for cotton. The growing and profitable nature of the import trade in yarn and piecegoods led the Indian merchants to consider whether it would not be possible to build up an indigenous industry which would supply the needs of India in those classes of yarn and piecegoods which it was possible to produce from Indian cotton at a cheaper rate than similar goods produced in the U.K. The setting up of the Empress Mill outside Bombay, however, soon promoted the expansion of the mill industry in other interior regions of the country, especially Ahmedabad, a major cotton growing centre. Later many others put up mills upcountry, among them being the Harveys of Madura Mills, the Staneses of Coimbatore Spinning and Weaving Mills, and some others in Calcutta and Cawnpore. Nevertheless, the industry remained mainly concentrated in Bombay Islands and Bombay Presidency.

For a number of years, Indian manufactures met with only a very small amount of success. In the initial phase, the spinning side of the industry developed out of all proportion to the weaving section, and, particularly in the case Bombay mills, this was very largely due to the vast and profitable export trade in yarn with China.

Though the local leadership was provided by the Parsis and the Bhatias, English initiative and finance played a vital role. The managerial and technical personnel and the

manufacturing processes and practices had a strong Lancastrian origin and bias. The machinery installed was almost exclusively English and it was housed in factories built on the Lancastrian model. Gradually there evolved a plant structure which was dependent on regular supplies from England of machinery for extension and expansion of existing plants and of spare parts for their maintenance. Indian technicians brought up in this environment developed preference for British machinery. The evidence of total British domination of the industry in the early stages of its development may be seen in the fact that the Bombay Millowners' Association, established in 1875, had common office arrangements with the Bombay Chamber of Commerce which was exclusively British.

Of course, the British interest was not so much in the Indian textile mill industry as in the trade with India. During this period, the imports of British textiles had continued to grow. In Table 2.1 are given India's imports of yarn and cotton goods from the United Kingdom during the period 1855-1900. It will be seen that, ^{during 1855-1879,} except for the four years 1862-1865, the yarn imports fluctuated around 30 million lbs. On the other hand, the imports of piecegoods steadily increased from under 400 million yards in 1855-57 to 1200 million yards in 1879. The imports during 1862-65 were affected by the American Civil War and imports of yarn and piecegoods both were very low. But, they picked up soon after the war ended. The sudden jump

Table 2.1: Imports of Yarn and Piecegoods from U.K.:
1855-1900

Year	Yarn Million lbs.	Piecegoods Million yds.
1855	26.457	390.805
1856	21.709	409.994
1857	15.902	382.327
1858	31.151	713.630
1859	38.685	848.412
1860	26.870	691.443
1861	23.207	705.874
1862	16.081	484.061
1863	19.691	483.320
1864	16.460	427.637
1865	13.289	511.826
1866	22.304	617.130
1867	30.829	868.478
1868	27.890	1,206.232
1869	27.614	844.583
1870	33.413	1,006.288
1871	27.017	1,037.902
1872	26.271	968.150
1873	28.778	1,072.286
1874	33.421	1,108.485
1875	29.913	1,095.040
1876	30.001	1,145.729
1877	33.674	1,279.574
1878	30.095	1,140.341
1879	27.630	1,193.946
1880	41.579	1,615.593

Table 2.1 (contd.)

Year	Yarn Million lbs.	Piecegoods Million yds.
1881	37.024	1,574.664
1882	39,870	1,490.472
1883	40.734	1,560.556
1884	42.728	1,597.356
1885	38.639	1,553.518
1886	45.203	2,002.789
1887	42.856	1,691.376
1888	45.944	1,836.567
1889	38.242	1,809.750
1890	41.547	1,818.687
1891	42.678	1,641.835
1892	32.925	1,656.581
1893	34.978	1,719.967
1894	34.802	2,021.212
1895	31.736	1,509.410
1896	40.457	1,824.643
1897	38.738	1,526.323
1898	33.325	1,851.804
1899	32.704	1,971.976
1900	24.824	1,668.785

Source: Millowners' Association, Bombay.

in imports of both yarn and piecegoods in 1880 marked the beginning of further increases in such imports in the following two decades. During 1880-1900, yarn imports increased to 40 million lbs. and fluctuated around that level while piecegoods imports progressively increased from 1600 million yards in 1880 to about 2000 million yards in 1899. The fall in imports of both yarn and piecegoods in 1900 was on account of famine conditions in India.

British cotton goods imported into India were, of course, subject to import duty, though British goods had an advantage over goods imported from other countries. Thus in 1852, whereas a duty of 10 per cent was applicable to cotton and silk piecegoods not of British manufacture, a duty of only 5 per cent was applicable to piecegoods of British origin. Although the import duty was levied only as a revenue measure, in course of time, British textile interests began to fear the possible protective effect to the indigenous industry, and in the eighteen seventies, they carried out an agitation for the abolition of the duty. As a result, in 1878, certain coarse grades of cotton goods were exempted from duty, and in 1882, all grades of cotton goods were exempted. It was not until 1894 that the duty on cotton goods was revived, at 5 per cent, but in order to eliminate the protective effect, a countervailing excise duty of 5 per cent on cotton yarn produced by Indian mills was imposed. Later, in 1896, the import duty on cotton yarn was removed, but a 3.1/2 per

cent duty on imports of cotton fabrics was imposed, simultaneously with an equivalent counterviling excise on mill-made cotton cloth.

Unfortunately, we have not been able to trace data regarding India's textile exports to the United Kingdom for this period. But data are available regarding the value of India's imports and export of textiles from and to all countries. In Table 2.2, these are given for the years 1849-1900. It may be noted that value is expressed in £ for the years 1849-1880, 1899 and 1900 and in tens of rupees for the years 1881-1898. It will be noticed that during the period 1849-1880 the value of imports and exports both increased greatly but that the imports increased much more than the exports; imports increased more than six times while exports increased under four times. Consequently, the ratio of imports to exports increased. Earlier we have noted that in 1835, the imports were four times the exports. In 1849, the ratio was 4.53 and thereafter, barring minor fluctuations, it increased steadily to 14.67 in 1872 and then declined to almost 7 in 1880. Between 1849 and 1872, the imports increased 5.58 times that is at an average annual rate of 7.76 per cent. But between 1872 and 1880, they grew only 1.12 times that is at an average annual rate of 1.48 per cent. In comparison, between 1849 and 1872 the exports increased only 1.73 times that is at an annual average rate of 2.40 per cent; but between 1872 and 1880, they grew 2.30 times

Table 2.2: Value of India's exports and imports
of cotton textiles (1849-1900)

Value in £ for the years 1849-1880; 1899; 1900.

Value in tens of rupees for the years 1881-1898.

Year (1)	Value of imports (2)	Value of exports (3)	Imports/Exports (4)
1849	3,131,105	690,584	4.53
1850	4,503,204	742,320	6.07
1851	4,681,690	673,549	6.95
1852	6,161,913	819,049	7.52
1853	4,797,933	930,877	5.15
1854	5,739,438	769,345	7.46
1855	6,677,342	817,103	8.17
1856	6,362,279	779,647	8.16
1857	6,133,327	882,241	6.95
1858	5,726,618	809,183	7.08
1859	9,803,143	813,604	12.05
1860	11,698,928	763,586	15.32
1861	11,058,118	786,557	14.06
1862	10,245,400	748,385	13.69
1863	9,630,530	785,437	12.26
1864	11,945,663	1,167,577	10.23
1865	13,227,325	1,043,960	12.67
1866	13,810,358	1,732,133	7.97
1867	15,096,806	1,157,828	13.04
1868	17,698,267	1,434,677	12.34

Table 2.2 (contd.)

(1)	(2)	(3)	(4)
1869	18,852,485	1,339,821	14.07
1870	16,271,216	1,298,757	12.53
1871	18,737,182	1,410,013	13.29
1872	17,483,333	1,191,683	14.67
1873	17,234,249	1,417,562	12.16
1874	17,784,625	1,595,370	11.15
1875	19,421,340	1,630,351	11.91
1876	19,244,981	1,704,947	11.29
1877	18,725,233	1,935,198	9.68
1878	20,172,716	2,295,079	8.79
1879	16,906,556	2,581,823	6.55
1880	19,660,817	2,737,916	7.18
1881	23,994,164	3,335,286	7.19
1882	24,810,062	3,967,610	6.25
1883	25,108,331	4,339,037	5.79
1884	24,557,834	4,587,534	5.35
1885	24,282,628	5,090,528	4.77
1886	29,164,885	5,854,352	4.98
1887	27,506,373	6,945,585	3.96
1888	31,511,305	8,191,245	3.85
1889	29,873,928	8,573,483	3.49
1890	31,010,349	9,496,933	3.27
1891	29,289,472	8,965,866	3.27
1892	25,625,865	9,924,358	2.58

Table 2.2 (contd.)

(1)	(2)	(3)	(4)
1893	32,377,469	7,968,455	4.06
1894	32,673,628	9,383,460	3.48
1895	25,755,872	10,220,241	2.52
1896	29,750,155	9,963,179	2.99
1897	26,384,832	9,567,598	2.76
1898	27,229,720	9,148,265	2.98
1899	19,634,750	6,412,428	3.06
1900	19,890,229	4,633,183	4.65

Source: Statistical Abstract Relating to British India.

which is at an average annual rate of 10.96 per cent.

Between 1880 and 1899-1900, it may be seen that while the level of imports had remained stable, exports had almost doubled. Hence the ratio of imports to exports declined from 7.18 in 1880 to 4.65 in 1900.

In Table 2.3-A are shown the value of imports of (a) yarn and twist and (b) piecegoods separately for the period 1849-1866. Similar split up of India's exports is available only from 1867 and is given in Table 2.3-B which gives the split for imports as well as exports for the period 1867-1900. It will be seen that the ratio of imports of piecegoods to those of yarn and twist (Col. 4, Table 2.3-A and Col. 8, Table 2.3-B) increased over the years. In 1849, the ratio was close to 2.5; during 1857-1885 it ranged between 5 and 6; and by 1900 it was close to 11. The ratio of exports of piecegoods to exports of yarn and twist is given in Col. 9 of Table 2.3-B. In 1867, the piecegoods exports were 11.12 times the exports of yarn and twist. But the ratio steadily declined to 1.16 in 1883 and less than half subsequently. The contrast between the trends in the composition of India's textile imports and exports during this period is clear and striking.

The same may be presented in another manner. In columns 6, 7 of Table 2.3-B are given the ratio of India's imports to exports separately for (a) yarn and twist and (b) piecegoods. It will be noticed that during the period

Table 2.3-A: Value of Imports of Cotton Yarn
and Cotton Piecegoods (1849-1866)

In £			
Year	Imports of Cotton Twist & Yarn	Imports of Cotton Piecegoods	Piecegoods Im- ports/Yarn Imports ^{3/2} (4)
(1)	(2)	(3)	(4)
1849	909,016	2,222,089	2.44
1850	1,131,586	3,371,618	2.98
1851	1,039,329	3,642,361	3.50
1852	1,391,134	4,770,779	3.43
1853	1,130,500	3,667,433	3.24
1854	1,306,913	4,432,525	3.39
1855	1,274,098	5,403,244	4.24
1856	1,414,274	4,948,005	3.50
1857	1,191,974	4,941,353	4.15
1858	943,920	1,782,698	5.07
1859	1,714,216	8,088,927	4.72
1860	2,047,115	9,651,813	4.71
1861	1,748,183	9,309,935	5.32
1862	1,472,484	8,772,916	5.96
1863	1,270,301	8,360,229	6.58
1864	1,529,001	10,416,662	6.81
1865	2,191,440	11,035,885	5.04
1866	1,961,144	11,849,214	6.04

Source: Statistical Abstract Relating to British India.

Table 2,3-B: Value of Imports and Exports of Cotton Yarn and Cotton Piecegoods (1867-1900)

Value in £ for the years 1867-1880; 1899; 1900.
Value in tens of rupees for the years 1881-1898.

Year	Imports of Cotton Twist and Yarn	Imports of Cotton Piecegoods	Exports of Cotton Twist and Yarn	Exports of Cotton Piecegoods	Yarn Imports/Exports 2/4 (6)	Piecegoods Imports/Exports 3/5 (7)	Piecegoods Imports/Exports 3/2 (8)	Piecegoods Exports/Exports 5/4 (9)
(1)	(2)	(3)	(4)	(5)				
1867	2,572,700	12,524,106	95,516	1,062,344	26.93	11.79	4.87	11.12
1868	2,698,350	14,999,917	175,775	1,259,683	15.35	11.91	5.56	7.17
1869	2,779,934	16,072,551	128,183	1,211,638	21.69	13.27	5.78	9.45
1870	2,715,370	13,555,846	122,619	1,176,138	22.14	11.53	4.91	9.59
1871	3,357,393	15,687,476	159,247	1,250,766	21.08	12.54	4.67	7.85
1872	2,424,522	15,058,811	121,469	1,070,214	19.96	14.07	6.21	8.81
1873	2,628,296	14,605,953	137,936	1,279,626	19.05	11.41	5.56	9.28
1874	2,628,959	15,155,666	181,173	1,414,197	14.51	10.72	5.76	7.81
1875	3,157,780	16,263,560	203,812	1,426,539	15.49	11.40	5.15	6.99
1876	2,794,769	16,450,212	324,370	1,380,577	8.62	11.92	5.89	4.26
1877	2,733,514	15,991,719	425,726	1,509,472	6.42	10.59	5.85	3.55
1878	2,850,403	17,322,313	744,791	1,550,288	3.83	11.17	6.08	2.08
1879	2,779,772	14,126,781	937,968	1,644,125	2.96	8.59	5.08	1.75
1880	2,745,306	16,915,511	1,163,946	1,573,970	2.36	10.75	6.16	1.35
1881	3,222,065	20,772,099	1,420,737	1,914,549	2.27	10.85	6.45	1.35
1882	3,378,190	21,431,872	1,874,464	2,093,146	1.80	10.24	6.35	1.12

Table 2.3-B (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1883	3,465,943	21,642,388	2,013,019	2,326,018	1.72	9.31	6.24	1.16
1884	3,360,420	21,197,414	2,506,617	2,080,917	1.34	10.19	6.31	0.83
1885	3,172,083	21,110,545	2,841,555	2,248,973	1.12	9.39	6.66	0.79
1886	3,318,377	25,846,508	3,418,008	2,436,344	0.97	10.61	7.79	0.71
1887	3,581,906	23,924,467	4,146,731	2,798,854	0.86	8.55	6.68	0.68
1888	3,746,797	27,764,508	5,318,614	2,872,631	0.71	9.67	7.41	0.54
1889	3,482,529	26,391,399	5,840,114	2,733,369	0.60	9.66	7.58	0.47
1890	3,768,362	27,241,987	6,627,165	2,869,768	0.57	9.49	7.23	0.43
1891	3,514,620	25,774,852	5,884,698	3,081,168	0.60	8.37	7.33	0.52
1892	2,683,850	22,942,015	6,864,304	3,060,054	0.39	7.50	8.55	0.45
1893	3,108,941	29,268,528	5,054,099	2,914,356	0.62	10.04	9.41	0.58
1894	2,851,254	29,822,374	5,783,626	3,599,834	0.49	8.28	10.46	0.62
1895	2,971,090	22,784,752	6,801,553	3,418,688	0.44	6.67	7.67	0.50
1896	3,325,871	26,424,284	7,262,255	2,700,924	0.46	9.78	7.95	0.37
1897	3,493,038	22,901,794	7,070,179	2,497,419	0.49	9.17	6.56	0.35
1898	2,551,634	24,678,086	6,685,396	2,462,869	0.38	10.02	9.67	0.37
1899	1,633,341	18,001,409	4,671,896	1,740,532	0.35	10.34	11.02	0.37
1900	1,659,477	18,230,752	2,829,963	1,804,220	0.59	10.11	10.99	0.64

Source: Statistical Abstract Relating to British India.

1867-1900, the ratio of imports to exports of piecegoods fluctuated between 10 and 12. But the ratio of imports to exports of yarn and twist declined rapidly from over 25 in 1867 to about half in 1900.

Thanks to the establishment of the Bombay Millowners' Association in 1875, some data regarding the growth of the industry are available beginning with 1876. In Table 2.4 is shown the growth of the industry in terms of the number of mills, number of installed spindles and number of installed looms. Between 1876 and 1900, the number of mills increased from 47 to 193; the number of spindles from 1,100,112 to 4,945,783; and the number of looms from 9,139 to 40,124. Thus the number of spindles and the number of looms both increased almost $4\frac{1}{2}$ times in 24 years or at an average annual rate of almost 6.5 per cent.

In spite of this remarkable growth, India's textile mill industry in 1900 was still very small compared to the same in other major textile producing countries. This may be seen from the following Table 2.5.

Thus in 1900, India's mill industry was of course very small in comparison with the same in U.S.A. and Great Britain both in respect of number of spindles and looms. But it was much larger than that of Japan and China: India's spindleage was almost four times that of Japan and almost nine times that of China. But, as we shall later see the cotton industry in both Japan and China was poised for rapid progress. By 1940, India's spindleage was

Table 2.4: Growth of Cotton Mill Industry 1876-1900

Year ending 30th June	No. of Mills	No. of Spindles	No. of Looms	3/4 Spind/Looms
(1)	(2)	(3)	(4)	(5)
1876	47	1,100,112	9,139	120.38
1877	51	1,244,206	10,385	119.81
1878	53	1,289,706	10,533	122.44
1879	56	1,452,794	13,018	111.59
1880	56	1,461,590	13,502	108.25
1881	57	1,513,096	13,707	110.30
1882	65	1,620,814	14,172	114.37
1883	67	1,790,388	15,373	116.46
1884	79	2,001,667	16,262	123.09
1885	87	2,145,646	16,537	129.75
1886	95	2,261,561	17,455	129.57
1887	103	2,421,290	18,536	130.63
1888	114	2,488,851	19,496	127.66
1889	124	2,762,518	21,561	128.13
1890	137	3,274,196	23,412	139.85
1891	134	3,351,694	24,531	136.63
1892	139	3,402,232	25,444	133.71
1893	141	3,575,917	28,164	126.97
1894	142	3,649,736	31,154	117.15
1895	148	3,809,929	35,338	107.81
1896	155	3,932,946	37,270	105.53
1897	173	4,065,618	37,584	108.17

Table 2.4 (contd.)

(1)	(2)	(3)	(4)	(5)
1898	185	4,259,720	38,813	112.06
1899	188	4,728,333	39,069	121.03
1900	193	4,945,783	40,124	123.64

Source: Millowners' Association, Bombay.

Table 2.5: Textile Mill Industry in major countries in 1900

Country	Number of spindles	Number of looms
India	4,945,783	40,124
U.S.A.	19,472,232	439,465
Great Britain	45,600,000	648,820
Germany	8,031,400	211,818
Japan	1,274,000	5,045
China	550,000	-

Source: Millowners' Association, Bombay.

smaller than that of Japan and less than double that of China. Similarly, in 1900, the number of looms in India was eight times that in Japan but by 1940, it was less than double that in Japan. In China, the number of looms was negligible in 1900 but in 1940, the number was more than a quarter of that in India.

Returning to the growth of the Indian mill industry between 1876 and 1900, we have noted above that the growth in the number of spindles and in the number of looms was almost equal - 4.1/2 times over the period of 24 years. But this was not so throughout the period; spindles expanded more than the loomage in some years and vice versa. This is clearly reflected in the ratio of spindles to looms shown in the last column (col. 5) of Table 2.4. The following years appear to be turning points in this

ratio. They also indicate periods in which the spindles or the looms increased faster than the other.

Table 2.6: Ratio of Spindles To Looms

Year	Ratio of spindles	<u>Annual average growth rate</u>	
		Spindles	Looms
1876	120.38		
1880	108.25	7.36	10.25
1890	139.85	8.40	5.66
1896	105.53	3.10	8.06
1900	123.26	5.90	1.86

Statistics of textile production by Indian mills are available only from 1896 onwards. In the following, we shall present approximate estimates of yarn production for the years 1881-1895. The basis of the estimates of production of yarn is the consumption of cotton in Indian mills for which Bombay Millowners' Association give data for years beginning with 1881. The data for the years 1896-1905 are reproduced in Table 2.7. In column (3) is given the yarn production figures and column (4) gives the ratio of weight of yarn produced to weight of cotton consumed. The ratio shows wide variation from 90.71 per cent in 1897 to 61.96 per cent in 1900. The ratios for 1899 and 1900 appear rather low and abnormal. But there is considerable variation even in years which must be considered normal. In view of this, it is not possible to

Table 2.7: Cotton Consumption in Yarn Production
1896-1905

Year	Consumption of cotton mills thsd. lbs.	Yarn Production thsd. lbs.	3/2 %
(1)	(2)	(3)	(4)
1896	552,452.656	419,197	75.88
1897	509,966.912	462,596	90.71
1898	580,680.576	512,385	88.29
1899	656,674.480	513,923	78.26
1900	569,713.980	352,973	61.96
1901	680,682.080	572,938	83.44
1902	691,894.900	575,694	83.21
1903	681,821.280	578,759	84.88
1904	693,948.272	578,381	84.57
1905	736,663.648	680,919	92.43

Source: Col. (2): Millowners' Association, Bombay.

Col. (3): Statistical Abstract Relating To British India.

estimate annual production of yarn from the annual consumption of cotton. We may however, obtain approximate estimates of annual yarn production by making use of an average ratio of yarn production to cotton consumption. This ratio for the years 1896-1905 is 82.36 per cent. We propose to work with the ratio of 80 per cent and estimate the production of yarn for the period 1881-1895 on the basis of consumption of cotton during these years. The estimates, given in Table 2.8 are admittedly approximate but will be useful to judge the growth in production during this period.

In Table 2.9 are given for the period 1881-1900 (i) production of yarn (estimated for 1881-1895), (ii) exports of yarn, and (iii) imports of yarn. It will be seen that during 1881-1900, the production of yarn increased from about 120.0 million lbs. to over 500.0 million lbs. which is more than four-fold. The exports of yarn also increased in almost the same proportion from under 50.0 million lbs. to over 200.0 million lbs. In consequence, the ratio of exports to production remained fluctuating between 40 and 50 per cent. On the other hand, imports of yarn remained steady between 40.0 million lbs. and 50.0 million lbs. The sharp fall in production and exports of yarn in 1900 was due to the severe famine in that year.

Thus, between 1881 and 1900, while the imports of yarn remained more or less constant, the exports increased

Table 2.8: Estimates of Yarn Production 1881-1895.

Year	*Cotton consumption by mills thsd.lbs.	Yarn production thsd.lbs = 80% of (2)
1881	148,563.96	118,851.17
1882	155,844.30	124,675.44
1883	178,969.95	143,175.96
1884	208,295.08	166,636.06
1885	233,925.61	187,140.49
1886	252,135.97	201,708.78
1887	284,700.19	227,760.15
1888	308,496.94	246,797.55
1889	348,352.37	278,691.90
1890	395,317.10	316,253.68
1891	462,131.15	369,704.92
1892	457,047.70	365,638.16
1893	459,035.14	367,228.11
1894	479,223.14	383,378.51
1895	527,519.89	422,015.91

* Source: Millowners' Association, Bombay.

Table 2.9: Production, Export, Import of Yarn, 1881-1900

Year	Yarn production in thousand lbs.	Yarn exports in thousand lbs.	Yarn imports in thousand lbs.	Exports/Production 3/2
(1)	(2)	(3)	(4)	(5)
1881	118,851.17*	49,834.40	40,761.751	41.93
1882	124,675.44*	58,876.00	44,859.175	47.22
1883	143,175.96*	65,449.60	45,378.956	45.71
1884	166,636.06*	78,173.56	44,799.637	46.91
1885	187,140.49*	88,745.20	45,915.123	47.42
1886	201,708.78*	107,880.80	49,013.979	53.48
1887	227,760.15*	118,455.20	51,542.549	52.01
1888	246,797.55*	135,522.80	52,587.181	54.91
1889	278,681.90*	151,143.20	46,382.525	54.24
1890	316,253.68*	177,570.00	50,970.950	56.15
1891	369,704.92*	185,304.00	50,404.318	50.12
1892	365,638.16*	193,845.20	38,276.545	53.02
1893	367,228.11*	163,615.60	42,806.991	44.55
1894	383,378.51*	186,278.80	41,482.747	48.59
1895	422,015.91*	195,579.20	46,354.766	46.34
1896	419,197.00	231,856.40	50,173.890	55.31
1897	422,596.00	183,513.20	58,290.717	43.43
1898	512,385.00	221,574.40	45,545.668	43.24
1899	513,923.0	271,322.40	42,621.854	52.79
1900	352,973.0	138,763.60	34,803.334	39.31

* Estimated Production given in Table 2.9.

Source: Millowners' Association, Bombay, Statistical Abstract Relating to British India.

enormously. The expansion of Indian mill industry during this period was largely due to this expansion of the export market. In view of this, it will be useful to note the countries to which Indian yarn was exported. The relevant data are given in Table 2.10.

It may be seen that China provided the main export market for Indian yarn and that between 1881 and 1900, it expanded rapidly almost ten times. In 1881, exports to China constituted almost half of all exports; in 1899, they constituted over 85 per cent of all exports. The year 1900, we have already noted, was an abnormal year, due to famine conditions in India. Exports of yarn to Japan were small in 1881; they increased until 1889, when they constituted about 16 per cent of all exports, but declined rapidly thereafter; by 1900, they became negligible and almost non-existent. Exports to other countries gradually increased during this period but never exceeded 25 per cent of all exports.

Incidentally, imports of yarn during this period came almost exclusively from Great Britain.

Production minus exports plus imports gives us the yarn available for domestic consumption by mills and handlooms. This is shown in Table 2.11. It will be seen that during 1881-1900, the available yarn increased from about 11.0 million lbs. to 28.5 million lbs.

It would be possible to utilise the above data on yarn available for domestic consumption to estimate the

**Table 2.10: Exports of Indian Spun Twist and Yarn
by Sea and Rail 1881-1900**

				Thousand lbs.
Year	To China	To Japan	To Other Countries	Total
(1)	(2)	(3)	(4)	(5)
1881	24,713.2	2,951.2	16,436.8	49,834.4
1882	32,573.6	3,941.6	16,600.8	58,876.0
1883	37,992.8	6,968.4	16,852.0	65,449.6
1884	50,927.2	5,538.4	19,290.4	78,173.6
1885	61,806.8	7,608.0	17,278.8	88,745.2
1886	79,762.8	8,217.2	18,041.2	107,880.8
1887	82,063.2	15,892.0	19,119.6	118,455.2
1888	93,628.4	21,078.8	19,915.6	135,522.2
1889	101,878.8	24,888.0	23,730.4	151,143.2
1890	130,024.0	15,088.9	26,880.4	177,570.0
1891	146,015.2	4,375.6	31,254.4	185,304.0
1892	154,308.4	8,578.0	27,818.8	193,845.2
1893	119,028.8	5,679.2	35,252.0	163,615.6
1894	135,481.2	4,297.2	42,345.2	186,278.8
1895	149,647.6	1,006.0	41,948.4	195,579.2
1896	188,409.2	986.8	39,950.8	231,856.4
1897	144,488.4	258.0	36,438.0	183,513.2
1898	175,058.0	190.0	43,476.4	221,574.4
1899	231,847.6	100.0	37,611.6	271,322.4
1900	101,332.4	40.0	35,199.2	138,763.6

Source: Millowners' Association, Bombay.

Table 2.11: Yarn Available for Domestic Consumption
In India

Year (1)	Yarn Available for * Domestic Consumption thousand lbs. (2)
1881	109,778.52
1882	110,658.62
1883	123,105.32
1884	133,262.14
1885	144,310.41
1886	142,841.96
1887	160,847.50
1888	163,861.93
1889	173,921.23
1890	189,654.63
1891	234,805.24
1892	210,069.51
1893	246,419.50
1894	238,582.46
1895	272,791.48
1896	237,514.49
1897	297,373.52
1898	336,356.27
1899	285,222.45
1900	249,012.73

* Obtained by taking yarn production minus exports plus imports given in Table 2.9.

production of cloth by mills during 1881-1895 if it were known how much of the yarn was used by mills in cloth production. However, such information is not readily available and we must rest content with the production data for the years 1896-1900 provided by the Statistical Abstract Relating to British India to which we shall presently make a reference.

As mentioned earlier, statistics of textile production by Indian mills are available from 1896 onwards. In that year the Finance and Commerce Department of Government of India published a brochure entitled "Production of Yarn and Woven Goods in Cotton Mills in British India". This publication was the result of administrative measures connected with the levy of excise duty on indigenous textile production. Under the Cotton Duties Act XVII (1894), which envisaged the collection of yarn production statistics only, each owner or agent of a cotton mill was required to furnish a monthly return of the yarn production in his mill. The Cotton Duties Act II (1896) broadened the scope by including the production of woven goods as well. The returns prepared in accordance with the Acts began to be submitted in respect of yarn from 1894, and in respect of woven goods from February 1895, and were consolidated and first published in 1897. The above mentioned brochure did not give statistics of actual production but of quantities issued out of mill premises and on which excise duty was paid. When the excise duty

was abolished in 1926, statistics of production began to be collected under the new Cotton Industry (Statistics) Act XX (1926) and published every month in the Monthly Statistics of Cotton Spinning and Weaving in Indian Mills. This publication gives statistics of cotton goods manufactured by mills and not the goods issued out of mill premises. For reasons of accessibility the present work takes textile production statistics prior to Independence (August 1947) from (i) Statistical Abstract Relating to British India or (ii) the Report of the Textile Enquiry Committee (1954), which in turn take them from the original source.

In Table 2.12 are given the production of woven goods in the Indian mills for the years 1896-1900. Production figures, it may be noted, are given in *tlbs.* By the close of the century, thus, Indian mills produced around 100 million lbs. of woven goods amounting to, it may be hazarded, roughly 400-450 million yards.

Table 2.12: Production of Woven Goods 1896-1900

Year	Woven goods lbs.
1896	82,933,000
1897	91,288,000
1898	101,690,000
1899	98,065,000
1900	98,748,000

Source: Statistical Abstract Relating to British India.

CHAPTER IIIDEVELOPMENT OF COTTON MILL INDUSTRY: 1901-1925

Earlier, while tracing the growth of the Indian textile mill industry during 1876-1900, we had noted how the industry expanded sometimes more on the spinning side and sometimes more on the weaving side. In the last four years of this period, namely 1896 to 1900, the spindleage had expanded much faster than did the loomage and in consequence, the ratio of spindles to looms had increased from 105.5 in 1896 to 123.3 in 1900. However, in the next forty-five years from 1900 to 1945, the loomage expanded much faster than the spindleage and the ratio of spindles to looms declined: from 123.3 in 1900, it came down to 103.0 in 1905, to 74.9 in 1910, to 56.8 in 1920 and to 50.9 in 1930. Between 1930 and 1945, the ratio stayed more or less at 50.0; thereafter it increased slightly but was still less than 55.0 in 1950. For convenience of presentation, we shall somewhat arbitrarily divide this period into two halves: 1900-1925, and 1925-1950. In the following, we shall examine the progress of the industry during 1900-1925.

In Table 3.1 are given the number of mills, number of spindles, and number of looms for the period 1901-1925. The number of mills increased from 193 to 337. The number of spindles increased from 5.01 million to 8.51 million, that is, an increase of 1.69 times in 24 years, which is

Table 3.1: Growth of Cotton Mill Industry
(1901-1925)

Year (ending 30th June)	Number of Mills	Number of Spindles	Number of Looms	Ratio of Spindles to Looms 3/4
(1)	(2)	(3)	(4)	(5)
1901	193	5,006,936	41,180	121.59
1902	192	5,006,965	42,584	117.58
1903	192	5,043,297	44,092	114.38
1904	191	5,118,121	45,337	112.89
1905	197	5,163,486	50,139	102.98
1906	217	5,279,595	52,668	100.24
1907	224	5,333,275	58,436	91.27
1908	241	5,756,020	67,920	84.75
1909	259	6,053,231	76,898	78.72
1910	263	6,195,671	82,725	74.89
1911	263	6,357,460	85,352	74.49
1912	268	6,463,929	88,951	72.67
1913	272	6,596,862	94,136	70.08
1914	271	6,778,895	104,179	65.07
1915	272	6,848,744	108,009	63.41
1916	266	6,839,877	110,268	62.03
1917	263	6,738,697	114,621	58.79
1918	262	6,653,871	116,484	57.12
1919	258	6,689,680	118,221	56.59
1920	253	6,763,076	119,012	56.83
1921	257	6,870,804	123,783	55.51

Table 3.1 (contd.)

(1)	(2)	(3)	(4)	(5)
1922	298	7,331,219	134,620	54.46
1923	336	7,927,938	144,794	54.75
1924	336	8,313,273	151,485	54.88
1925	337	8,510,633	154,292	55.16

Source: Millowners' Association, Bombay.

equivalent to an average annual increase of 2.24 per cent. In comparison, the number of looms increased from 41,180 to 154,292 that is, 3.75 times in 24 years, which is equivalent to an average annual increase of 5.66 per cent. In consequence, as mentioned above, the ratio of spindles to looms came down from 121.6 in 1901 to 55.2 in 1925.

Of course, the rates of growth in spindleage and loomage both are not uniform during the period. The period is naturally divided into three sub-periods, before the First World War, that is 1901-1914, the years affected by the War that is 1914-1921 and the post-war years 1921-1925. The annual average growth rates in spindleage and loomage during these sub-periods are as under:

Table 3.2: Growth in spindleage and loomage during 1901-1925

Year	Number of spindles	Number of looms	Average annual growth rate	
			In spindles	In looms
1901	5,006,936	41,180		
1914	6,778,895	104,179	2.358	7.401
1921	6,870,804	123,783	0.193	2.494
1925	8,510,633	154,292	5.497	5.662
1901-1925			2.223	5.658

The growth rates in the period affected by the War namely 1914-1921 are naturally lower than those in the pre-war period. But in both the periods 1901-1914 and 1914-1921, the growth in loomage was more than in spindleage. In the

post-war period 1921-1925, the growth in spindleage and loomage was more or less equal.

In Table 3.3 are given the statistics of production of yarn and cloth in Indian mills during 1901-1925. It will be noticed that the production of yarn increased from about 570 million lbs. in 1901 to about 680 million lbs. in 1905, that is by 18.85 per cent. During this period, the spindleage had increased from 5.007 million to 5.163 million which is an increase of only 3.13 per cent.

Clearly, therefore, during 1901-1905, the spindleage was working fuller capacity. But, in the next 20 years 1905-1925, while the spindleage increased from 5.163 million to 8.511 million which is by 64.82 per cent, the production of yarn remained almost stagnant at the level reached in 1905 namely 680 million lbs.; it fluctuated between 600 million lbs. and 700 million lbs., but never really reached 700 million lbs. The large expansion in spindleage during this period must thus have resulted in much under-utilised capacity.

In contrast, the production of cloth increased almost four-fold from about 500 million yards in 1901 to almost 2000 million yards in 1925. The average annual rate of growth works out to 5.89 per cent and compares favourably with the growth rate of 5.66 per cent in loomage.

To appreciate the problems of the mill industry during this period, we should examine the data on production along with data on imports and exports. We shall first consider

Table 3.3: Production of Yarn and Cloth (1901-1925)

Year (1)	Yarn million lbs. (2)	Cloth million yds. (3)
1901	573	494
1902	576	497
1903	579	560
1904	578	658
1905	681	687
1906	654	708
1907	638	808
1908	657	824
1909	628	964
1910	610	1,043
1911	625	1,136
1912	688	1,220
1913	683	1,164
1914	652	1,136
1915	722	1,442
1916	681	1,578
1917	661	1,614
1918	615	1,451
1919	636	1,640
1920	660	1,581
1921	694	1,732
1922	706	1,725
1923	617	1,702
1924	719	1,970
1925	686	1,954

Source: Report of the Textile Enquiry Committee
(1954), Volume III.

the situation in yarn. The relevant data on production, imports and exports are given in Table 3.4.

Earlier we had noted that during 1880-1900, the exports of Indian mill yarn had expanded enormously and that this was mainly on account of the China market. This boom ended by 1901 and the exports began to decline again mainly because of the loss of the China market partly on account of the growth of China's own yarn production and partly on account of the Japanese entry into that market. Total yarn exports from India (Column 3 of Table 3.4), which amounted to 278 million lbs. in 1901, declined to less than 200 million lbs. in 1910; between 1910 and 1916, they fluctuated between 150 and 200 million lbs., but then declined sharply to less than 50 million lbs. in 1923 and thereafter. In consequence, while in 1901, yarn exports accounted for nearly 50 per cent of production, in 1925, the exports were only 5 per cent of production.

The loss of the China market is brought out in Table 3.5. The Table shows yarn exports to China from India and Japan. Exports to China from other countries are not readily available. The figures for India's exports to China are available for the entire period 1901-1925, but in the case of Japan, the figures are readily available only from 1903 onwards. It may be seen that India's yarn exports to China dwindled from 214.478 million lbs. in 1901 to a mere 11.449 million lbs. in 1925. This was for two reasons: First, because of increase in Chinese

Table 3.4: Production, Exports, Imports of Yarn
(1901-1925)

Year	Yarn Pro- duction Million lbs.	Yarn Ex- ports Million lbs.	Yarn Im- ports (net of re-exports) Million lbs.	Exports ³ / ₂ Production ² %
(1)	(2)	(3)	(4)	(5)
1901	573	278.8	31.7	48.66
1902	576	254.8	27.9	44.24
1903	579	260.5	23.1	44.99
1904	578	255.6	25.4	44.22
1905	681	304.4	40.8	44.70
1906	654	250.6	32.2	38.32
1907	638	233.3	30.6	36.57
1908	657	242.8	35.0	36.96
1909	628	233.9	34.6	37.25
1910	610	191.1	27.1	31.33
1911	624	161.1	34.7	25.82
1912	688	214.9	40.7	31.24
1913	683	206.9	35.9	30.29
1914	652	142.4	34.1	21.84
1915	722	168.1	31.7	23.28
1916	681	177.5	22.8	26.07
1917	661	130.2	13.3	19.70
1918	615	72.5	31.4	11.79
1919	636	160.3	7.8	25.20
1920	660	88.1	43.7	13.35
1921	694	88.1	53.4	12.70

Table 3.4 (contd.)

(1)	(2)	(3)	(4)	(5)
1922	706	63.4	53.0	8.98
1923	617	45.8	39.5	7.42
1924	719	45.5	50.5	6.33
1925	686	38.7	50.7	5.64

Source: Report of the Textile Enquiry Committee (1954),
Vol. III.

N.B.: Figures for imports given in column (4) above
do not exactly tally with those given by
Review of Trade of India given in Table 3.6.

Table 3.5: Yarn Exports To China from India and Japan (1901-1925)

Thousand lbs.			
Year	From India	From Japan	Total from (2)(3) India, Japan
(1)	(2)	(3)	(4)
1901	214,478	N. A.	-
1902	222,195	N. A.	-
1903	241,618	11,171	252,789
1904	184,126	86,064	270,190
1905	260,748	93,066	353,814
1906	238,770	97,288	336,058
1907	164,851	76,347	241,198
1908	176,760	53,707	230,467
1909	204,298	94,441	298,739
1910	169,957	120,614	290,571
1911	110,035	93,730	203,765
1912	173,596	121,680	295,276
1913	162,144	155,719	317,863
1914	129,834	182,050	311,884
1915	143,511	185,568	329,079
1916	121,477	176,063	297,540
1917	114,546	142,630	257,176
1918	43,427	92,676	136,103
1919	108,023	62,504	170,527
1920	70,275	66,708	136,983
1921	61,164	69,945	131,109
1922	47,588	85,145	132,733

Table 3.5 (contd.)

(1)	(2)	(3)	(4)
1923	23,296	48,627	71,923
1924	12,464	38,614	51,078
1925	11,449	53,111	64,560

Source: Millowners' Association, Bombay.

domestic production of yarn, Chinese imports from both India and Japan declined from 252.789 million lbs. in 1903 to 64.560 million lbs. in 1925. Second, Japanese entry into the China market reduced India's share in that market; of the total yarn imported from India and China, India's share was 96 per cent in 1903 but it was reduced to 18 per cent in 1925, while Japan's share correspondingly increased. Comparing the decline in India's yarn exports to China by about 200 million lbs. with the decline in India's total yarn exports in that period given in column 3 of Table 3.4, it may be noted that total yarn exports declined by about the same amount. In other words, while India lost the China market, she was not able to develop any other foreign market for her yarn.

Let us ~~know~~ turn to imports of yarn (Column 4, Table 3.4). While reviewing the developments during 1880-1900, we had noted that, during this period, the yarn imports had fluctuated around 40 million lbs. The position more or less continued upto 1914. During this period, the imports of yarn came almost exclusively from England. During the war years, imports somewhat declined. In the post-war years they somewhat increased, fluctuating between 40 and 50 million lbs.

In relation to India's own production of yarn, the imports were not large and constituted not more than 10 per cent of production. But an important change had taken place between the pre-war and post-war years. As earlier

mentioned, in the pre-war years, the yarn imports came almost exclusively from England. Now Japan, which entered the Indian market during the war years, began to compete out the British yarn. A series giving yarn imports into India from U.K. and Japan can be obtained from the Review of Trade of India from 1919 onwards. For the earlier period, the Review gives average imports from U.K. and Japan during the pre-war quinquennium 1909-1913 and the war quinquennium 1914-1918. This is given in Table 3.6. It may be seen that during the pre-war quinquennium, the imports from U.K. were more than 80 times the imports from Japan. The imports from Japan greatly increased during the war years, while the imports from U.K. declined. During 1914-1918, average imports from Japan were 16 times the average during 1909-1913, while average imports from U.K. during 1914-18 were $\frac{2}{3}$ rds the average during 1909-1913. Imports from Japan continued to increase even after the war. In 1923, yarn imports from Japan were almost equal to those from England; in 1924 and 1925, they far exceeded the imports from England.

Thus, the Indian mill industry, particularly the spinning industry, began to face a keen competition from Japan not only in the China market but also in the home market. This was the principal reason for the stagnation of India's yarn production during 1905-1925. As we shall presently see, in the face of rapidly declining exports

Table 3.6: Yarn Imports from U.K. and Japan (1909-1925) .

(Thsd. lbs.)

Period	From U.K.	From Japan	Total imports from all countries	2/3
(1)	(2)	(3)	(4)	(5)
Av. of pre-war yrs. 1909-1913	37,050	458	41,794	80.90
Av. of war yrs. 1914-1918	24,674	7,424	34,063	3.32
1919	12,230	1,918	15,097	6.38
1920	23,396	20,123	47,333	1.16
1921	40,074	14,915	57,125	2.69
1922	31,018	26,547	59,274	1.17
1923	21,790	20,430	44,575	1.07
1924	20,759	33,325	55,907	0.63
1925	15,980	33,525	51,688	0.48

Source: Review of Trade of India.

N.B.: Figures for total imports from all countries given in column (4) above do not exactly tally with those given by the Textile Enquiry Committee (1954) given in Table 3.4.

was maintained by rapid expansion of domestic mill weaving industry.

In Table 3.7 is given the yarn available for domestic consumption; as before, this is production plus imports minus exports. The Table also shows the yarn consumed by Indian mills and the balance available for handlooms and other minor uses. It will be noticed that during the period 1901-1925, the yarn available for domestic consumption doubled; the yarn used by Indian mills increased fourfold; in consequence, while in 1901, the Indian mills used only about 30 per cent of the available yarn, in 1925, they consumed as much as 60 per cent of the available yarn. During the period, the yarn available for handlooms and other minor uses remained more or less stationary, fluctuating between 200 and 300 million lbs.

Let us next consider the production of cloth and examine it in relation to imports and exports of cloth. In Table 3.8 we give the production of cloth, split into mill cloth and handloom cloth, imports of cloth and exports of cloth. In two additional columns are shown Indian mill production net of exports and net availability for domestic consumption. While relating imports and exports to production of cloth, it should be borne in mind that imports of cloth are almost exclusively of mill cloth while exports include both mill cloth and handloom cloth, though separate figures for the two are not available for the period under consideration namely 1901-1925.

Table 3.7: Yarn available for domestic consumption in India and consumption by Indian mills (1901-1925)

Year	In million lbs.			
	Yarn available for domestic consumption	Consumption by mills	3/2 %	"Free" yarn available for sale in India
(1)	(2)	(3)	(4)	(5)
1901	326	106	32.52	220
1902	349	107	30.66	240
1903	342	122	35.67	220
1904	347	139	40.06	208
1905	418	145	34.69	273
1906	435	147	33.79	288
1907	446	168	37.67	278
1908	449	171	38.09	278
1909	429	204	47.55	225
1910	446	218	48.88	228
1911	499	237	47.50	262
1912	514	254	49.42	260
1913	512	245	47.85	267
1914	544	246	45.22	298
1915	586	313	53.41	273
1916	527	336	63.76	191
1917	544	338	62.13	206
1918	574	310	54.01	264
1919	484	341	70.46	143
1920	616	327	53.08	289
1921	659	359	54.48	300

Table 3.7. (contd.)

(1)	(2)	(3)	(4)	(5)
1922	696	360	51.72	336
1923	610	355	58.20	255
1924	724	405	55.94	319
1925	698	411	58.89	287

Source: Report of Textile Enquiry Committee (1954),
Volume III.

**Table 3.8: Production, Exports, Imports and Domestic
Consumption (in million metres)**

↳ of Cotton Cloth In India (1901-1945)

Year	Indian mill production	Handloom production	Imports net of re-exports	Exports	Indian mill production net of exports	Net available for domestic consumption 2+3+4-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1901	494	(25.52) 828	(62.95) 2,042	120	(11.53) 374	(100.00) 3,244
1902	497	(27.59) 904	(59.75) 1,958	109	(11.84) 388	(100.00) 3,277
1903	560	(27.06) 824	(60.18) 1,903	125	(13.76) 435	(100.00) 3,162
1904	658	(22.40) 772	(62.45) 2,152	136	(15.15) 522	(100.00) 3,446
1905	687	(26.37) 1,036	(59.42) 2,334	129	(14.21) 558	(100.00) 3,928
1906	708	(28.23) 1,096	(56.50) 2,194	115	(15.27) 593	(100.00) 3,883
1907	808	(25.43) 1,056	(57.83) 2,401	113	(16.74) 695	(100.00) 4,152
1908	824	(29.12) 1,060	(51.35) 1,869	113	(15.93) 711	(100.00) 3,640
1909	964	(22.58) 848	(55.13) 2,070	127	(22.29) 837	(100.00) 3,755
1910	1,034	(21.88) 860	(55.00) 2,162	134	(22.90) 900	(100.00) 3,931
1911	1,136	(23.31) 1,000	(52.96) 2,272	118	(23.73) 1,018	(100.00) 4,290
1912	1,220	(20.11) 992	(57.70) 2,847	125	(22.19) 1,095	(100.00) 4,934
1913	1,164	(20.02) 1,020	(59.69) 3,042	130	(20.29) 1,034	(100.00) 5,096
1914	1,136	(25.37) 1,140	(51.80) 2,328	110	(21.83) 1,026	(100.00) 4,494

Table 3.8 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
1915	1,442	(23.90) 1,036	(46.55) 2,018	161	(29.55) 1,281	(100.00) 4,335
1916	1,578	(18.97) 712	(47.22) 1,772	309	(33.81) 1,269	(100.00) 3,753
1917	1,614	(21.53) 764	(39.62) 1,406	235	(38.86) 1,379	(100.00) 3,549
1918	1,451	(30.98) 996	(29.71) 955	187	(39.32) 1,264	(100.00) 3,215
1919	1,640	(18.09) 516	(32.81) 936	239	(49.10) 1,401	(100.00) 2,853
1920	1,581	(28.10) 1,100	(35.91) 1,406	172	(35.99) 1,409	(100.00) 3,915
1921	1,732	(31.11) 1,140	(26.77) 981	189	(42.11) 1,543	(100.00) 3,664
1922	1,725	(29.81) 1,276	(34.27) 1,467	187	(35.93) 1,538	(100.00) 4,281
1923	1,702	(24.89) 952	(35.92) 1,374	203	(39.19) 1,499	(100.00) 3,825
1924	1,970	(25.67) 1,192	(36.83) 1,710	229	(37.49) 1,741	(100.00) 4,643
1925	1,954	(25.34) 1,064	(33.65) 1,413	232	(41.01) 1,722	(100.00) 4,199

Source: Report of Textile Enquiry Committee (1954), Vol. II.

N.B.: (1) Figures in col.(4) given here do not exactly tally with those given by the Review of Trade of India given in Table 3.9.

(2) Figures in brackets show percentage of col.7.

The important point to note is that in spite of fourfold expansion of cloth production by mills during the period 1901-1925 and considerable reduction of imports, imports were still considerable in relation to production. In 1901, the production of cloth was only about 500 million yards while imports were over 2000 million yards. In 1925, production was almost 2000 million yards but imports were still over 1400 million yards. The imports came mainly from England and Japan. The Review of Trade of India gives imports from U.K. and Japan separately from 1921 onwards. Prior to that, the Review provides figures of quinquennial averages for the quinquennia 1909-1913, 1914-1918, and 1919-1923. This is given in Table 3.9. It will be seen from the Table that though total imports declined considerably during the period considered, the decline was confined to imports from England, while the imports from Japan continued to rise. In 1925 the imports from Japan were still small in comparison to imports from England but they were becoming sizeable; they constituted 14 per cent of all imports.

During the period, the exports of cloth from India almost doubled from under 120 million yards in 1901 to 232 million yards in 1925. However, in relation to the total production of cloth (mill and handloom), the exports were only 4.67 per cent in 1925, against 9.07 per cent in 1901.

Production of mill and handloom cloth plus/net of ^{imports} re-exports minus exports constitute the net available cloth

Table 3.9: Imports of Cotton Piecegoods from U.K. and Japan (1909-1925)

Thsd. yards			
Year (1)	Imports from U.K. (2)	Imports from Japan (3)	Total Imports from all countries (4)
Av. of pre-war yrs. 1909-1913	2,563,705	3,127	2,634,783
Av. of war yrs. 1914-1918	1,702,072	97,637	1,845,239
Av. for post war yrs. 1919-1923	1,199,041	113,403	1,352,573
1921	955,099	902,275	1,089,799
1922	1,453,409	107,778	1,593,295
1923	1,318,804	122,667	1,485,826
1924	1,613,987	155,303	1,823,240
1925	1,286,708	216,826	1,563,713

Source: Review of Trade of India.

N.B.: Figures for total imports from all countries given in column (4) do not exactly tally with those given by the Textile Enquiry Committee (1954) given in Table 3.8.

for domestic consumption. During the pre-war period, this increased considerably from 3244 million yards in 1901 to 5096 million yards in 1913. This was largely due to an almost three-fold increase in the Indian mill cloth available for domestic consumption (that is mill production net of exports) from 370 million yards to more than 1000 million yards. On the other hand, handloom production as well as net imports remained fluctuating between 800-1000 million yards and between 2000-3000 million yards respectively. Hence the share of mill cloth in total consumption increased from 12 per cent to more than 20 per cent; the share of handloom cloth fluctuated between 20-25 per cent; and the share of net imports fluctuated between 50-60 per cent. The quantum of cloth available for domestic consumption somewhat declined since 1914, and during 1914-1925 remained fluctuating between 3500-4600 million yards. During this period, that is 1914-1925, while mill cloth available for domestic consumption increased from 1000 to 1700 million yards, handloom production continued to fluctuate between 800-1000 million yards. Net imports declined considerably, fluctuating between 800-1000 million yards. Between 191³~~4~~-1925, while the share of mill cloth in total consumption increased from 22 per cent to over 40 per cent, that of net imports declined from 58 per cent to 34 per cent. On the other hand, the share of handloom cloth continued to fluctuate between 20-25 per cent.

CHAPTER IVPERIOD OF PROTECTION OF COTTON MILL INDUSTRY: 1925-1940

From 1923 to 1926 the Indian cotton textile industry, particularly in Bombay, experienced severe depression. The loss of the China market and the keen competition from Japan in the home market caused serious difficulties to the Bombay mills, leading to depression conditions. In response to an application from the Bombay Millowners' Association, the Government appointed in June 1926 a special Tariff Board to investigate the conditions of the industry, to examine the causes of the depression, and to report whether the industry was in need of protection, and, if so, in what form and for what period protection should be given.

Import duties on cotton textiles were of course not unknown in 1926. Almost from the beginning of the 19th century, import duties on cotton textiles were in operation. But they arose mainly on account of revenue considerations and their quantum varied from time to time depending on the financial requirements of the Government. Moreover, in order that they may not act as protective tariffs, in accordance with the strict principles of free trade, countervailing excise duties were levied. From 1896, import duty at the rate of 3.1/2 per cent was levied on cotton piecegoods and there was an equal countervailing excise duty on goods manufactured in Indian mills. This

situation continued until 1917 so that we might say that until then the Indian mill industry did not enjoy any effective protection from imports. In 1917, because of war-time financial considerations, the import duty on cotton piecegoods was raised to 7.1/2 per cent and again in 1921 to 11 per cent. In 1922 an import duty on cotton yarn was imposed at the rate of 5 per cent ad valorem. Moreover, while the import duty on cotton piecegoods was raised, the excise duty was kept at the same old level of 3.1/2 per cent thus providing an effective protection to the mill industry - 4 per cent since 1917 and 7.1/2 per cent since 1921. Evidently this was not enough and there was insistent demand for abolition of the excise duty. In 1925, the duty was first suspended and in 1926 it was finally abolished. Thus, in 1926 when the special Tariff Board was appointed the industry was enjoying a protection of 11 per cent import duty on cotton piecegoods and 5 per cent on yarn.

In the face of keen Japanese competition this was not considered adequate. In their evidence before the special Tariff Board (1927), the Bombay Millowners' Association stated: "..... the remission of the Excise Duty brought only partial relief to the industry in Bombay and the Japanese could still afford to sell at prices below those of the Bombay mills." (Vol. II, pg.24). One reason for the lower prices for Japanese imports was the depreciation of the Japanese Yen and appreciation of

the Indian Rupee in 1924-25. But the Japanese industry had other and more fundamental advantages. To quote from the same evidence (pg. 29):

"(a) With a total spindleage of less than five million, Japan produces over two million bales of yarn per annum, whereas India with $8\frac{1}{8}$ million spindles produces $1\frac{1}{2}$ million bales of yarn.

"(b) With only just over 60,000 looms Japan produces well over 1,000 million yards of piecegoods per annum; India with $2\frac{1}{2}$ times as many looms, only produces 1,700 million yards of cloth per annum.

"(e) .. while Japan has almost maintained her yarn export trade with China, India has almost entirely lost hers.

"(f) In piecegoods, the position is much more unfavourable to India, the value of India's piecegoods exports trade to China being only about $\frac{1}{10}$ of what it was, Japan's trade has increased forty to fifty fold."

While explaining how this happened the Bombay Millowners' Association says the following: (pp. 31-32).

"The Bombay Millowners' Association maintain that the mill industry in Japan enjoys certain special advantages over the indigenous industry, and these special advantages make the competition from Japan grossly unfair, necessitating special protective measures on the part of the Government of India in the interests of the cotton mill industry of this country.

"The strongest complaint which the millowners of this country have to make against Japan is that she has failed to carry out the convention adopted by the International Labour Conference held at Washington in 1919, which she has provisionally agreed to. As is well known, all the conventions adopted by the International Labour Conference were not applicable to Japan and India, and special conventions regarding hours were drawn in respect of these two countries. The Government of India readily carried out all the most important conventions The Government of Japan, however, have failed to carry out the convention although their delegates at Washington had accepted them. The Hours Convention imposed 57 hours week on Japan and a 60 hour week on India Another important convention prohibited the employment of women and children at night and it is well-known that this convention has not yet been observed by Japan. It is by working twenty to twenty-two hours a day in double shift and by employing women and children at night that the Japanese are able to turn out goods much in excess of their home requirements and at a cost which is necessarily less than the cost of manufacturing similar goods in countries which work one shift and do not employ women and children at night. This surplus production Japan is able to export to India and India's foreign markets at prices at which Indian mills cannot afford to manufacture."

The Special Tariff Board accepted this argument for protection against imports from Japan, and estimated the advantage derived by the Japanese mills from inferior labour conditions at about 4 per cent on the actual cost of manufacturing both yarn and cloth. But there was a difference of opinion regarding the measure of protection to be adopted. The majority (the President dissenting) recommended an increase in the import duty on cotton piecegoods from 11 to 15 per cent for three years; they did not recommend an increase in the duty on yarn, in consideration of the effect which such an increase might have upon the handloom industry. The President in a minute of dissent recommended an additional duty of 4 per cent for three years on all cotton manufactures, including yarn imported from Japan. The Board made a further unanimous recommendation that cotton textile machinery and certain mill stores which had been liable to duty since 1921 should be exempted from duty for a period of three years, at an estimated sacrifice of revenue of about Rs. 50 lakhs.

The Government of India rejected the recommendation of the majority for a general increase in the import duty on cotton piecegoods, finding that no case was established for such an increase. Nor did they accept the President's proposal for an increased duty on imports from Japan; they agreed that the advantage which Japan derived from labour conditions in the country might be assumed at about 4 per

cent on the actual cost of manufacture of both yarn and cloth; and they found that if a reasonable return on capital was admitted, the advantage would not be more than 10 per cent on cloth, which was already sufficiently covered by the existing 11 per cent revenue duty on cotton piecegoods. Though the 5 per cent revenue duty on yarn did not cover the advantage to the Japanese mills, the Government would not impose an additional duty on yarn, because thereby the handloom industry would be prejudicially affected. But, the Government agreed to remove the import duties on machinery and on certain stores consumed in cotton mills.

In order to stimulate a larger output of goods of superior quality, the majority of the Board (the President dissenting) made a further recommendation for the payment for four years of a bounty of one anna per pound or its equivalent on the production of yarn of 32s and higher counts. The Government rejected this recommendation, holding that the administrative difficulty of working the scheme were insuperable and agreeing with the President "that a long established industry, such as the cotton textile industry in Bombay, should need no stimulus at the cost of the general tax-payer to a development which is in its own interest."

The publication of this order led to a strong protest by representatives of the industry whereby the Government were induced to modify their original order in respect of

the proposal to increase the duty on yarn, and they undertook to introduce a bill providing that upto 31st March 1930 the duty on all imported cotton yarn should be one and a half annas a pound or 5 per cent ad valorem whichever was higher, following the Tariff Board's estimate of 16.55 pies per lb. as the measure of the advantage enjoyed by the Japanese mills in spinning yarn of 32s counts. At the same time in order to minimise the burden on the handloom industry and to encourage diversification of mill production they proposed to reduce the duty on artificial silk yarn from 15 to 7.1/2 per cent. The Indian Tariff (Cotton Yarn Amendment) Act, 1927, duly provided that until 31st March 1930 the duty on all imported cotton yarn should be 5 per cent ad valorem or 1.1/2 annas a pound, whichever was higher, and the Indian Tariff (Amendment) Act, 1927 exempted certain mill machinery and stores from duty on artificial silk yarn from 15 to 7.1/2 per cent.

The years 1928 and 1929 were marked by serious labour troubles and general strikes in the Bombay cotton mills; the industry became still more depressed; and the competition of imports from Japan became keener than ever. In the meanwhile, India along with the rest of the world, was caught in the grip of a severe depression which started with the collapse of prices in the latter half of 1929. The depression had an adverse effect on governmental revenues, and in the normal budget for the year 1930-31, as

a revenue measure, the import duty on cotton piecegoods was raised from 11 to 15 per cent. Under the Cotton Textile Industry (Protection) Act of that year, an additional protective duty of 5 per cent was imposed on all goods manufactured in the United Kingdom and a minimum specific duty of $3\frac{1}{2}$ annas per pound on plain grey goods whether manufactured in the United Kingdom or elsewhere. Owing to the continued severity of the worldwide economic depression it was found necessary in the ordinary Budget to increase from 1st March 1931, the duties on cotton piecegoods manufactured (a) in the United Kingdom to 20 per cent and (b) elsewhere to 25 per cent leaving a minimum specific duty of $3\frac{1}{2}$ annas per pound unchanged. By another Finance Act an all round surcharge of 25 per cent was imposed from 30th September 1931, raising the duty on goods manufactured in the United Kingdom to 25 per cent ad valorem. The minimum specific duty on plain grey goods, whether manufactured in the United Kingdom or elsewhere, was raised to $4\frac{3}{8}$ annas per pound and the duty on other goods, if not manufactured in the United Kingdom to $31\frac{1}{4}$ per cent. At the same time the duty on cotton yarn was increased to $6\frac{1}{4}$ per cent ad valorem or $1\frac{7}{8}$ annas per pound whichever was higher. By these two Finance Acts of 1931, the duty on artificial silk yarn was raised first to 10 per cent and then to $18\frac{3}{4}$ per cent while the duties on artificial silk piecegoods and artificial silk mixtures were raised to 50 per cent and $34\frac{3}{8}$ per cent respectively

in September 1931 after being subject for the previous seven months to a flat rate of 20 per cent.

When the Cotton Textile Industry (Protection) Act, 1930 was passed, an assurance was given to the Legislature that the effect of the duties thereby imposed on the production of cotton piecegoods in India and on the Indian industry would be examined by a Tariff Board Enquiry.

Accordingly, the Tariff Board of 1932 was appointed to consider whether the claim of the industry to protection had been established, and if so, in what form and to what extent protection should be given. Before the Board could complete its investigation, there was a serious fall in the Japanese exchange rate and consequently in the prices of cotton piecegoods imported from Japan, which appeared likely to render ineffective the protection afforded to the Indian textile industry by the 1930 duties. The Board was directed to make a special enquiry in this connection, as a result of which the import duty on cotton piecegoods not of British manufacture was raised in August 1932, from 31.1/4 to 50 per cent ad valorem and the minimum specific duty on plain grey goods not of British manufacture from 4.3/8 to 5.1/4 annas per lb.

In its report on the main terms of reference, the Tariff Board of 1932 found that the Indian cotton textile industry had established a claim to substantive protection. The Government of India accepted this conclusion but found it necessary to review the measure of protection recommended by the Board in the light of events subsequent to the

submission of its Report which was signed 10th November 1932. In 1933, the duties on artificial silks were altered to 50 per cent ad valorem or 4 annas per square yard, whichever was higher. On artificial silk mixtures the duties were changed to a minimum of $2\frac{1}{4}$ annas per square yard or 35 per cent, the ad valorem rate being increased to 50 per cent at the end of the year. The duty on cotton piecegoods not of British manufacture was raised to 75 per cent ad valorem with a minimum specific duty on plain grey goods of $6\frac{3}{4}$ annas per pound. In July 1934 it was reduced again to the level of 50 per cent and $5\frac{1}{4}$ annas respectively, as a result of the Indo-Japanese Agreement which introduced a quantitative limitation on imports from Japan. Meantime, as a result of the British Textile Mission of India in the autumn of 1933, an understanding was arrived at between the Bombay Millowners' Association and the British Delegation. The Indian Tariff (Textile Protection) Amendment Act which came into force on 1st May 1934 gave statutory effect to both these Agreements subject to one slight modification in respect of cotton yarn of counts over 50s. The Act also brought all rates and duties then obtaining, partly protective and partly revenue, definitely under the category of protective duties. A new definition of grey piecegoods was introduced and provided for a new class of piecegoods under the head of cotton sateens. Changes were also made in the classification and rates of artificial silk piecegoods.

The Indian Tariff Act of 1934 provided for a review of the British goods on the expiry of the year ending 31st December 1936, and accordingly, a special Tariff Board was appointed in September 1935. The Board, which reported in June 1936, recommended that the duty on plain grey cotton piecegoods imported should be reduced from 25 per cent ad valorem or 4.3/4 annas per lb., whichever was higher, to 20 per cent ad valorem or 3.1/2 annas per lb., whichever was higher. The duty on bordered grey, bleached and coloured piecegoods other than prints were to be reduced to 20 per cent ad valorem. The Board did not make any recommendations about duties on printed goods as the printing industry was still at an infant stage.

The Indo-Japanese Agreement of 1934 was to remain in force till 1937, and in 1936, negotiations began for a new agreement. Under the Indo-Japanese Agreement of 1937, which came into operation from 1st April 1937 for a period of three years, it was stipulated that India would buy 283 million yards of cloth from Japan and that Japan would buy one million bales of Indian cotton. Throughout this period (1925-1936), the imports of cotton yarn and piecegoods from the U.K. declined while those from Japan increased. With the outbreak of war in 1939, imports from U.K. declined rapidly but imports from Japan, particularly of cotton piecegoods, remained more or less steady during the three years 1937-1940 being the tenure of the new agreement. The imports from Japan declined sharply in

1941-42 and with Japan's entry in the war in 1942, ceased altogether. Beginning with 1942, all imports of cotton yarn and piecegoods became negligible.

The relevant data are given in Table 4.1 and 4.2. Table 4.1 gives imports of yarn from the U.K., Japan and total for the period 1925-1950. Table 4.2 gives similar data for imports of cotton piecegoods. They clearly show the rapid decline and final cessation of all imports of cotton yarn and piecegoods.

Nevertheless, the protective duties were continued by continuation Acts. The last extension was agreed to by the Legislature in April 1946 for a period of one year, and an undertaking was given by Government that in the meantime, the case of the industry would be examined and Government would decide as to what should be done in respect of this and other major industries. The proceedings of the Legislative Assembly indicate the context in which the extension had been agreed to and the justification that would be demanded in the event of Government proposing further extension to the expiring protective duties. The principle criticism against the continuation voiced in the Legislature was that these industries had grown up under the shelter of protection for a sufficiently long time to enable them to stand on their own legs and were now placed in a particularly strong position as competition from abroad was practically non-existent. Some members of the Assembly had remarked

Table 4.1: Yarn Imports from U.K. and Japan (1925-1950)

In thousand lbs.			
Year (1)	From U.K. (2)	From Japan (3)	Total from all countries (4)
1925	15,980	33,525	51,688
1926	20,106	26,619	49,425
1927	20,560	16,975	52,345
1928	23,094	7,632	43,766
1929	20,112	10,870	43,882
1930	10,315	6,895	29,140
1931	11,913	6,206	31,575
1932	13,357	18,149	45,103
1933	14,481	12,556	32,055
1934	12,857	18,946	34,022
1935	9,379	19,998	44,570
1936	7,257	14,910	28,520
1937	6,632	14,644	21,998
1938	4,681	21,169	36,459
1939	2,829	27,164	41,132
1940	1,297	11,822	19,335
1941	370	4,208	8,231
1942	60	-	945
1943	66	-	630
1944	45	-	192
1945	123	-	123
1946	151	-	217
1947	2,413	25	8,804

Table 4.1 (contd.)

(1)	(2)	(3)	(4)
1948	5,461	2,660	11,083
1949	6,199	5,371	14,089
1950	224	-	500

Source: Review of the Trade of India.

N.B.: Figures for total imports given in column (4) do not exactly tally with those given by the Textile Enquiry Committee (1954) shown in column 4 of Table 4.5.

Table 4.2: Imports of Cotton Piecegoods from U.K. and Japan (1925-1950)

In thousand yards			
Year (1)	Imports of Cotton Piecegoods		
	From U.K. (2)	From Japan (3)	From all countries (4)
1925	1,286,708	216,826	1,563,713
1926	1,466,874	243,587	1,787,944
1927	1,543,110	323,053	1,973,380
1928	1,456,092	357,343	1,936,761
1929	1,247,539	561,966	1,919,000
1930	523,431	320,716	889,970
1931	383,498	339,782	775,614
1932	597,119	579,735	1,225,279
1933	459,725	445,503	n.a.
1934	528,568	437,404	n.a.
1935	403,910	433,426	852,040
1936	308,545	370,021	698,835
1937	266,608	306,045	590,798
1938	205,536	424,808	647,264
1939	144,562	393,265	579,151
1940	56,146	368,062	446,954
1941	31,212	135,684	181,539
1942	11,854	-	130,045
1943	3,284	-	3,745
1944	4,865	3	5,204
1945	2,642	-	3,187
1946	6,930	-	16,207

Table 4.2 (contd.)

(1)	(2)	(3)	(4)
1947	10,585	-	27,671
1948	37,243	3,774	47,514
1949	40,153	29,863	73,424
1950	3,369	117	5,741

Source: Review of Trade of India.

N.B.: Figures for total imports given in column 4 do not exactly tally with those given by the Textile Enquiry Committee (1954) shown in column 4 of Table 4.7.

that in extending protection Government had been paying far too much consideration to the interests of producers at the cost of other equally vital interests, such as consumers, workers, and cottage industries.

The extension of protection agreed to by the Legislature in April 1946 was due to expire on March 31, 1947. Hence, by their letter dated 19th December 1946, the Government requested the Tariff Board to investigate claims of these industries to continued protection at the existing or a reduced or enhanced scale. Government referred in their letter to the continuance of the economic uncertainties which had made it impossible to conduct such an enquiry during wartime and asked the Board to evaluate, in a summary manner, necessity or otherwise, of continuing the existing measures of protection beyond 31st March 1947. The industry agreed that as the imports had practically ceased, the protective duties were for all practical purposes ineffective. Nevertheless, it was argued that as the duty did no harm to anybody, they may be continued until a more detailed enquiry could be held under more normal conditions. The Tariff Board did not agree and recommended that the protective duties should not be continued any further. The Government accepted the recommendation and the protective duties on cotton piecegoods and yarn were allowed to expire on the 31st March 1947.

We may now briefly review the progress of the industry

during the period 1925-1940. In Table 4.3 is given the number of mills, number of spindles and number of looms. The number of mills increased from 337 in 1925 to 386 in 1940. The number of spindles increased from 8.5 million in 1925 to 10.0 million in 1940 that is at an average annual growth rate of 1.085 per cent. The number of looms increased from 154,292 in 1925 to 200,076 in 1940, that is at an average annual growth rate of 1.747 per cent which is much more than the rate of growth in spindles.

Statistics of yarn and cloth production by mills are given in Table 4.4. Yarn production increased from 686 million lbs. in 1925 to 1350 million lbs. in 1940 that is at an average annual rate of 4.61 per cent compared to an average annual growth of 1.085 per cent in spindleage. Cloth output increased from 1950 million yards in 1925 to 4270 million yards in 1940 that is at an average annual rate of 5.35 per cent against a 1.747 per cent average annual growth of looms. Thus during 1925-40, both yarn and cloth production increased much faster than the growth in capacity, implying a much fuller utilisation of capacity.

We may now examine the data on yarn production along with data on imports and exports given in Table 4.5. The yarn exports from India, which had reduced to less than 50 million lbs. during the early 1920's, did not improve during 1925-1940. During this period exports were less than 5 per cent of mill production. As noted earlier, the

Table 4.3: Growth of Cotton Mill Industry 1925-1940

Year ending 30th June	No. of Mills	No. of Spindles	No. of Looms	3/4 Ratio Spindles to Looms
(1)	(2)	(3)	(4)	(5)
1925	337	8,510,633	154,292	55.16
1926	334	8,714,168	159,464	54.65
1927	336	8,702,760	161,952	53.74
1928	335	8,704,172	166,532	52.27
1929	344	8,907,064	174,992	50.10
1930	348	9,124,768	179,250	50.91
1931	339	9,311,953	182,429	51.04
1932	339	9,506,083	186,341	51.01
1933	344	9,580,658	189,040	50.68
1934	352	9,613,174	194,386	49.45
1935	365	9,685,175	198,867	48.70
1936	379	9,856,658	200,062	49.27
1937	370	9,730,798	197,810	49.19
1938	380	10,020,275	200,286	50.03
1939	389	10,059,370	202,464	49.69
1940	386	10,005,785	200,076	50.01

Source: Millowners' Association, Bombay.

Table 4.4: Production of Yarn and Cloth 1925-1940

Year	Yarn in Million lbs.	Cloth in Million yds.
1925	686	1,954
1926	807	2,259
1927	809	2,357
1928	648	1,893
1929	534	2,419
1930	867	2,561
1931	966	2,990
1932	1,016	3,170
1933	921	2,945
1934	1,001	3,397
1935	1,059	3,571
1936	1,054	3,572
1937	1,161	4,084
1938	1,303	4,269
1939	1,235	4,013
1940	1,349	4,269

Source: Report of the Textile Enquiry Committee (1954),
Vol. III.

Table 4.5: Production, Exports, Imports of Yarn
1925-1940

In Million lbs.					
Year	Production	Exports	Imports	Exports/ Production	3/2 %
(1)	(2)	(3)	(4)	(5)	
1925	686	38.7	50.7	5.64	
1926	807	54.0	48.5	6.69	
1927	809	34.9	50.9	4.31	
1928	648	36.1	43.5	5.57	
1929	834	37.3	43.4	4.47	
1930	867	35.3	28.7	4.07	
1931	966	32.4	31.1	3.35	
1932	1,016	25.6	43.7	2.52	
1933	921	24.7	31.5	2.68	
1934	1,001	20.2	33.7	2.02	
1935	1,059	17.4	44.4	1.64	
1936	1,054	19.5	28.4	1.85	
1937	1,161	45.4	21.8	3.91	
1938	1,303	44.0	35.2	3.38	
1939	1,235	42.3	40.7	3.42	
1940	1,349	81.7	18.7	6.06	

Source: Report of the Textile Enquiry Committee (1954),
Volume III.

N.B.: Figures for total imports given in Col. (4) do not tally exactly with figures given by the Review of Trade of India shown in Col. (4) of Table 4.1.P.

yarn imports had fluctuated between 40 and 50 million lbs. during 1901-1925. They continued to fluctuate in the same range during 1925-1940 and constituted between 5 and 7 per cent of mill production.

Table 4.6 gives yarn available for domestic consumption, that is production plus imports minus exports. The Table also shows yarn consumed by Indian mills and the balance available for handlooms and other minor uses. It will be noticed that during the period 1925-1940 the yarn available for domestic consumption doubled. Yarn consumed by mills also doubled, in consequence, the percentage of available yarn consumed by mills remained more-or-less stable between 60 and 65 per cent. The quantity of yarn available for handlooms and other minor uses fluctuated between 330 and 430 million lbs.

The supply of cloth available for domestic consumption (Table 4.7) increased considerably over the period. Until 1930, it was below 5000 million yards; thereafter, it remained above 5000 million yards reaching and exceeding 6000 million yards in some years. This was mainly because of a large increase in the production of mill cloth from about 2000 million yards until 1928 to over 4000 million yards after 1937. This more than compensated the steep decline in imports from around 1800 million yards until 1929 to under 500 million yards in 1939-40. The output of handloom cloth also increased considerably from about 1000-1200 million yards until 1928

Table 4.6: Yarn Available For Domestic Consumption
In India and Consumption by Indian Mills
1925-1940

In Million lbs.				
Year	Yarn available for domestic consumption	Consumption by mills	3/2 %	"Free" Yarn available in India
(1)	(2)	(3)	(4)	(5)
1925	698	411	58.89	287
1926	801	474	59.18	327
1927	825	496	60.12	329
1928	655	389	59.39	266
1929	840	493	58.69	347
1930	861	519	60.28	342
1931	965	602	62.38	363
1932	1,034	624	60.35	410
1933	927	579	62.46	348
1934	1,015	656	64.63	359
1935	1,086	678	62.43	408
1936	1,063	695	65.38	368
1937	1,138	766	67.31	372
1938	1,294	817	63.14	477
1939	1,234	776	62.88	458
1940	1,286	863	67.11	423

Source: Report of the Textile Enquiry Committee (1954),

Table 4.7: Production, Export, Import and Domestic Consumption of Cotton Cloth In India 1925-1940

Million yards						
Year	Indian Mill Production	Handloom Production	Imports net of re-exports	Exports	Indian mill Production net of exports	Net available for domestic consumption
(1)	(2)	(3)	(4)	(5)	2-5 (6)	2+3+4-5 (7)
1925	1,954	1,064	1,413	232	1,722	4,199
1926	2,259	1,245	1,623	300	1,959	4,827
1927	2,357	1,270	1,815	287	2,070	5,155
1928	1,893	1,037	1,783	275	1,618	4,438
1929	2,419	1,406	1,799	242	2,177	5,382
1930	2,561	1,410	803	208	2,353	4,566
1931	2,990	1,517	677	235	2,755	4,949
1932	3,170	1,737	1,131	199	2,971	5,839
1933	2,945	1,440	697	183	2,762	4,899
1934	3,397	1,440	907	169	3,228	5,575
1935	3,571	1,659	907	206	3,365	5,931
1936	3,572	1,453	691	236	3,336	5,480
1937	4,084	1,435	530	390	3,694	5,659
1938	4,269	1,897	568	310	3,959	6,424
1939	4,013	1,618	498	350	3,663	5,779
1940	4,269	1,261	343	556	3,713	5,317

Source: Report of the Textile Enquiry Committee (1954) Vol.III.

N.B.: Figures for imports given in Col.(4) do not tally with figures given by the Review of Trade of India referred in Table 4.2 Col.(4).

to about 1400-1600 million yards after 1929. This must at least partly be attributed to the policy of protection pursued during this period. During the period, the Indian textile industry, both mill and handloom, seems to have established itself firmly and securely.

CHAPTER VCONTROL AND REGULATION: (1940-1950)

The outbreak of war in 1939 hurt the already declining imports; they were reduced to negligible quantities during 1942-45 and did not really pick up even after the war ended. The production of mill cloth was stepped up from 4000 million yards in 1939-40 to a peak of 4871 million yards in 1943-44. It somewhat declined in 1944-45 and 1945-46. Nevertheless, it was maintained at about 4700 million yards (Table 5.1).

Table 5.1: Production, Imports, Exports and Consumption of Cotton Piecegoods (1939-40 to 1945-46)

(in million yards)						
Year	<u>Production</u>		Net	Exports	Military	Balance for
	Mill	Hand-	imports		supplies	civil use
		loom				
1939-40	4013	1618	498	350	93	5686
1940-41	4269	1261	343	556	251	5066
1941-42	4494	1485	108	804	492	4791
1942-43	4109	1540	-2	845	789	4013
1943-44	4871	1741	4	514	652	5450
1944-45	4726	1737	6	468	745	5256
1945-46	4676	1759	2	471	575	5391

Source: Report of the Textile Enquiry Committee (1954), Volume III.

The increased production during the war years was achieved

by special measures such as increased working hours. Orders were issued under the Factories Act allowing an increase in working hours from 54 hours to 60 hours per six-day week. A large number of mills also started working night shifts. The very low production in 1942-43 was mainly due to a large exodus of labour because of war scare and political dislocation due to the freedom struggle. The handloom production fell in 1940-41 and 1941-42 mainly because of shortage of yarn. Steps were taken later to ensure adequate supply of yarn to handlooms and consequently handloom production improved. The total production of cloth, mill and handloom together, increased from about 5500 million yards in 1939-40 to 6600 million yards in 1945-46.

However, inspite of these increases in production, the quantity of cloth available for domestic civilian consumption declined firstly because of increased exports and secondly because of the demand from the army. Opportunities for increased exports came because of the temporary cessation of exports from England and other European countries and later from Japan. In the initial years of the war, the exports increased steeply from 350 million yards in 1939-40 to 845 million yards in 1942-43. The demand from the army also reached almost 800 million yards in 1942-43. As already noted, the production had also suffered in 1942-43. In consequence, the supply of cloth for civilian use had dropped from 5686 million yards

in 1939-40 to 4013 million yards in 1942-43. This caused a steep rise in the prices of cloth.

Since the outbreak of the war, the prices of all commodities were rising; but the rise in cloth prices was steeper than in other prices. This may be seen from the following:

Table 5.2: Index of Wholesale Prices (August 1939 = 100)

Period	All Commodities	Cotton Manufacture
Average for 1940	119.2	118.3
Average for 1941	129.1	159.3
Average for 1942	157.8	251.1
June 1943	247.7	513.0

Source: Office of the Economic Adviser, Government of India.

Thus, while the index of wholesale prices for all commodities moved from 100 in August 1939 to an average of 129.1 in 1941 and 157.8 in 1942, the index of cotton manufactures moved to an average of 159.3 in 1941 and 251.1 in 1942. Finally, in June 1943, while the index of all commodities was 241.7, the index of cotton manufactures reached 513. The Government had to intervene and in that month the Cotton Cloth and Yarn Control Order was promulgated under Defence of India Rules whereby price control was introduced. In August 1943, the ex-mill ceiling prices of twelve varieties of cloth were fixed and

the mills were asked to charge these prices. However, the measure did not work as it depended much on the good faith of the mills. Hence, in December 1943, control prices were fixed for all varieties of cloth and yarn for the first time and mills were asked to stamp these prices on all cloth pieces and yarn bundles. The prices were reduced further in March 1944, in February 1945, and again in November 1945. As a result the index number of cotton manufactures came down from 513 in June 1943 to 262 in December 1945 when the index number for all commodities was 247.1. Thus the price control measures together with increased production and increased supplies for civilian consumption effectively brought down the cloth prices on par with the prices of other commodities.

Another measure to make available for civilian consumption cloth at a low price was a scheme to manufacture and distribute what was called 'standard cloth'. Towards the end of 1942, a conference was held at Bombay between the Central Government and the representatives of the industry at which the industry agreed to devote 60 per cent of its production capacity to the manufacture of standard cloth. Specifications as to what constituted standard cloth was to be issued by Government from time to time. The Government was responsible for the purchase and distribution of the cloth at prices not higher than 6.1/4 per cent above the ex-mill prices as fixed by Government. The standard cloth was to be manufactured at the rate of

2000 million yards per annum which was about 40 per cent of the total production. The scheme began functioning in March 1943. Unfortunately, we have not been able to trace systematic data regarding its operation and progress.

In May 1945, a somewhat similar scheme called the 'Utility Cloth Scheme' was started. Its purpose was to increase production by rationalisation of production through reducing picks and restricting the number of sorts (types) of cloth and counts of yarn to be manufactured. For this purpose, the Textile Industry (Control of Production) Order was promulgated in May 1945. The mills had to devote 90 per cent of their free looms (that is looms not engaged in military supplies) to the manufacture of utility cloth.

Evidently, the Utility Cloth Scheme did not work. The Report of the Bombay Millowners' Association for the year 1945 makes the following comments: "..... the quality fixed for "utility cloths" was not satisfactory some manufacturers turned out cloths that gave them large profits but were unsuitable for marketing, and since quota holders and permit holders could not refuse to take delivery of such sorts, quota holders and permit-holders were left with large quantities of unsaleable sorts while the shortage of cloth was felt very acutely." (p. 5 of the Report). In November, the quantity of utility cloth required to be produced by mills was reduced to 60 per cent of free looms, prices were adjusted to some extent to make

coarse cloth less profitable, the price schedule for finishing and other charges was revised and quota holders were allowed to refuse to take cloth which in their opinion was not suitable for marketing. At the same time, the schedule of prices of grey cloths and dyeing, bleaching, printing and finishing charges was revised in favour of coarse cloths. Towards the end of the year it was decided to close down the utility cloth scheme, but the restrictions as to the manufacture of counts of yarn and cloth sorts were retained.

Under the Cotton Cloth Movement (Control) Order of October 1943, an elaborate distribution system was evolved in stages. A quota system was introduced which required all mills and manufacturers to restrict their sales of cloth and yarn only to dealers who had bought cloth and yarn from them during the years 1940, 1941 and 1942. The idea was to eliminate from the trade all those who were not regular dealers. Under the scheme, quotas were allotted to each Province and State on the basis of their estimated per capita consumption and release of cloth from producing to consuming areas was restricted to the fixed quotas. Thus, each Province and State was assured a definite supply. The controlling authorities in each area could also keep a check on the quantities received in each area and regulate their distribution at controlled prices to final consumers. Rationing of cloth was introduced in important cities and towns.

In addition to production, price and distribution controls, Government issued export regulations with a view to conserving supplies for domestic civilian consumption. With effect from July 1942, exports of cotton piecegoods were regulated under a quota system based on exports during 1941-42, and subject to a ceiling of 600 million yards per annum. An Export Order issued in 1944 provided that no person should sell yarn or cloth intended for export except to a person holding a valid export quota or license issued by an Export Trade Controller or the Textile Commissioner. The Order brought prices of exports to certain countries under control by requiring that no manufacturer should sell for export any cloth or yarn at an ex-factory price which exceeded the standard ex-factory price notified by the Textile Commissioner by more than 7 per cent. The Order also authorised the Central Government to require that all cloth or yarn exported should conform to minimum standards as regards specifications and packing and should bear certain prescribed markings. The Cotton Textiles Fund Ordinance promulgated in July 1944 imposed an export custom duty of 3 per cent on all cloth and yarn exports. This provided for the establishment of a Cotton Textiles Fund for the pursuance of technical education and research in the textile industry.

The war ended in August 1945. But control and regulation of the industry were continued, in the first

instance, upto December 1947; they were relaxed temporarily during January-July 1948, re-imposed in August 1948, and finally lifted in July 1953. On the expiry of the Defence of India Act on September 30, 1946, the control and regulation were continued under the Essential Supplies (Temporary Powers) Ordinance issued on September 25, 1946. This Ordinance became an Act of Parliament in November 1946. The continuation of controls proved wise because though the war ended, the supplies available for civilian use did not improve. Due to communal disturbance, industrial strife and labour unrest, the production of mill cloth fell sharply from 4676 million yards in 1945-46 to 3890 million yards in 1946-47. Consequently, inspite of stoppage of military supplies, the quantum of cloth available for civilian use in 1946-47 was no more than in 1945-46; it was 5302 million yards in 1946-47 as compared to 5391 million yards in 1945-46.

Besides, with the Partition of the Indian sub-continent in August 1947, the Indian cotton textile industry faced a new difficulty: while most of the cotton spinning and weaving mills remained in the Indian Union, a large part of the cotton area went to Pakistan. This may be seen from Table 5.3.

Table 5.3: Spindles and Looms With Mills and Cotton Cultivation before and after Partition

Year	Spindles in 000's	Looms in 000's	Area under Cotton 000 acres	Estimated yield 000 bales of 400 lbs. each
(1)	(2)	(3)	(4)	(5)
1947	10,353	203	14,860	3,566
1948 Indian Union	10,266	197	10,932	2,116

Source: The Indian Cotton Textile Industry Annual 1950.

Thus, as against 99.16 per cent of the spindleage and 97.04 per cent of the loomage, only 73.57 per cent of the cotton area and 59.34 per cent of the cotton production lay in the Indian Union. The shortage of raw cotton arising from this situation coupled with political turmoil following the Partition and also labour unrest, caused a further decline in the output of mill cloth from 3890 million yards in 1946-47 to 3770 million yards in 1947-48. Fortunately, this was compensated by an increase in handloom production so that total cloth production did not decline. As compared to 5627 million yards in 1946-47, it was 5667 million yards in 1947-48.

In order to meet the continuing situation of shortage, an effort was made to increase cloth output by standardizing production with a view to reducing varieties of cloth and average count of yarn produced by mills. The scheme came

into operation with effect from December 1, 1947 and was expected to increase the annual production of cloth (mills and handloom) by 800 million yards. But it was soon withdrawn reportedly on account of difficulties of securing supplies of long-staple cotton from Pakistan and in order to permit the mills greater flexibility in their manufacturing programme. In January 1949, the scheme of standardisation was revived with a view to increasing production by restricting the production largely to plain grey or bleached utility cloth.

Pending the effective implementation of production policies, and with a view to conserving supplies, in November 1947 an export duty on cloth and yarn of 4 annas per square yard on cloth and 6 annas per lb. of yarn was levied in replacement of the existing 3 per cent export duty on yarn and cloth exports. Subsequently, however, the export duty on cloth was changed to an ad valorem duty of 25 per cent whilst the duty on yarn was withdrawn.

In the meanwhile, in October 1948, the Government had ~~appointed~~ ^{and proposed} a Committee (Chairman: Shivshankar) to examine the existing measures of control over production, to examine proposals for the restrictions of production of fine and superfine varieties of cloth and to recommend on the desirability and practicability of rationalising and restricting the varieties of cloth produced by the mills. The Committee submitted its report in March 1949. Government of India accepted the recommendation made by

the Committee for securing maximum production and for the manufacture of durable varieties of cloth. Maximumlea strength for different counts of yarn, and minimum reed and pick for different varieties of cloth were prescribed. The Textile Commissioner was asked to make a careful study of the productive capacity of each unit, and the demand for different varieties of cloth with a view to bringing about greater correlation between supply and demand. Powers were also given to him to exempt from operation of production controls cases where cotton of requisite variety was not available or a reduction of productive capacity was involved. The Government of India further accepted the opinion of the Committee that it would be inexpedient and retrograde to prohibit or restrict the production of fine and superfine varieties of cloth for which a large demand existed in the country.

But the output of cloth did not increase. On the other hand, reportedly, stocks of yarn and cloth began to accumulate, resulting in a partial or total closure of some mills. Hence, the production control scheme formulated in May 1949 was modified in September 1949. Restrictions on production of certain types were withdrawn and other restrictions modified. Even this did not help improve the output of cloth. A Working Party and Target Committee for the Cotton Textile Committee appointed in the latter part of 1949 had fixed a target for mill cloth at 4500 million yards in 1950-51; the actual production

during the latter year was however, only 3676 million yards. As items for common consumption, particularly dhoties and sarees were in short supply, in January 1951 Government reserved 50 per cent of all looms of reed space 48" and 50" for production of dhoties and sarees. 60 per cent of looms so reserved were for production of dhoties only.

In Table 5.4 we give production, net imports, exports and consumption of cotton cloth during the five years after the end of the war, namely 1946-47-1950-51. Reference to the Table shows that during the five years 1946-1950, except in 1948, the production of cloth and quantum available for domestic consumption never rose above the low level it had dropped to in 1946; in fact, it declined progressively.

Table 5.4: Production, Imports, Exports and Consumption of Cotton Piecegoods (1946-47 to 1950-51)

(in million yards)						
Year	Production		Total	Net Imports	Exports	Available for Consumption
	Mills	Hand-looms				
1946-47	3890	1737	5627	21	346	5302
1947-48	3770	1897	5667	42	225	5484
1948-49	4381	1947	6328	40	366	6002
1949-50	3779	1444	5223	70	739	4554
1950-51	3676	1143	4819	4	1321	3502

Source: Textile Enquiry Committee (1954), Volume III.

In the circumstances Government had to concentrate attention on keeping the prices of cloth under control and ensuring equitable distribution of the available supply of cloth, as well as regulate exports.

We may first review the main elements of price control and movement of prices. The price control and controlled prices of cloth had remained unchanged during 1946. In 1947, an Ad Hoc Committee appointed to examine the position of the industry, the one which devised the scheme of standardization of production, had recommended a revision of the then existing price structure because it was felt the increase in the price of raw cotton and in the wages had made production of coarse yarn and cloth unremunerative at the existing prices. The Government did not agree but decided to refer the question of prices to the Tariff Board. Controlled prices remained unchanged during 1947.

In January 1948, in accordance with the general policy of progressive decontrol, restrictions on the production and distribution of yarn and cloth were removed and mills were allowed to increase the prices of cloth to partially offset the sharp rise in the price of cotton. The mill industry, on its part, gave an undertaking to Government to fix reasonable prices and reach production targets. The Bombay and Ahmedabad Millowners' Associations were asked by Government to exercise a voluntary control on the prices of cloths and yarns manufactured by their members.

A cess was imposed by Government on all stocks of yarn and cloth held by mills and quota holders on 31st December 1947 or 20th January 1948, whereby the difference between the old and new prices on all such stocks had to be paid into the Government Treasury. A reservation was also made by Government to the effect that 25 per cent of the production of each mill was to be placed at the disposal of the Textile Commissioner for a period of one month at a time to relieve any local shortages. Mills were also asked to set up fair price shops in deficit areas. Existing controls over the distribution of machinery, mill stores, dyes and chemicals, and exports of cloth continued to operate, however. From 1st February 1948, the Cloth Rationing Scheme in Bombay introduced in 1945 under the Bombay Cloth Rationing Order 1945, was abolished. In April 1948, Government removed even voluntary restrictions regarding the stamping of ex-mill and retail prices and control on yarn distribution. However, Government retained the right to requisition or earmark for the handloom industry at least as much yarn as was being supplied under the yarn distribution scheme in operation during the war years.

Consequently, prices of cotton manufactures rose sharply during the early months of 1948. The Economic Adviser's Wholesale Price Index of Cotton Manufactures, which was 264 in January 1948, was almost double in August 1948 and Government re-imposed controls under the Cotton

Textile (Control) Order of August 1948. The controls were more drastic and complete than before. Stocks with mills were frozen and they were asked to submit complete inventories to the Textile Commissioner, and to price stamp their entire stocks at the new low ad hoc prices. The distribution of cloth through normal channels was discontinued and this work was entrusted to the Provincial Governments who were assigned quotas to be purchased through permit holders. Rationing of cloth was re-introduced in Bombay from 1st December 1948 and the quota was fixed at 20 yards per head per annum.

Controls re-imposed in August 1948 continued in 1949. The prices of cloth and yarn were reduced progressively in the course of the year. In October 1949, in accordance with the Government's policy to reduce prices of essential commodities, the industry agreed to a voluntary reduction of 4 per cent in the ex-mill prices of cloth and yarn, which came into effect from 1st November 1949. As a result, cloth prices were lower in comparison with those in 1948: 9 to 16 per cent in the case of superfine cloth, 6 to 9 per cent in the case of fine sorts, 8 per cent in the case of medium cloth and 2 per cent in the case of coarse varieties. The only increase was of 1 to 3 per cent in the case of two extremely coarse varieties. Prices of yarn were reduced similarly. At the end of the year, prices of superfine counts were lower by nearly 20 per cent and those of fine and medium counts by about 3 per cent to

10 per cent. The coarse counts showed a fall of 4 per cent to 17 per cent, whereas the very coarse count yarns of 6s to 8s registered a rise of about 3 per cent.

The Tariff Board appointed by Government in 1947 submitted their report towards the end of 1949. The Board recommended that (1) prices of cloth and yarn should be fixed at fair figures and periodical adjustments should be made for fluctuations in the main elements of cost viz. raw cotton, wages, power, fuel and stores; (2) the periodical revision of prices should be entrusted to an independent body, and that (3) the distribution charges of cloth and yarn should be carefully revised to keep retail prices within reasonable limits. Government accepted the first two recommendations of the Board but decided to leave the revision of prices to the Textile Commissioner. The fixation of wholesale and retail prices was left to the Provincial and State Governments. Accordingly, in January 1950, Government issued a communique that in accordance with the system of periodical revision recommended by the Tariff Board, prices of cotton textiles would be revised from 1st February. Successive increases were made in the rates of fine cloths in February, May and August, amounting to in all approximately 5.1/2 per cent over those prevailing in November 1949. Prices of superfine cloth were increased by 5 per cent in February, but were subsequently reduced in May and August by 1,1/2 per cent each time. An upward revision of nearly 18 per cent took

place in November, with the result that the prices of superfine cloth registered an increase of 18 to 20 per cent by December 1950 compared to prices prevailing at the end of the previous year. Prices of medium cloth were reduced by 2 to 4 per cent in February; there was no change in the prices of coarse cloths during the year.

The ceiling prices of coarse yarns remained unchanged throughout 1950. Prices of medium and fine count yarn spun from Indian cotton were reduced by approximately 2 per cent and 5 per cent respectively in February, and the same prices prevailed for the rest of the year. Rates of fine yarns from imported cotton were enhanced thrice, and over the year recorded an increase of 6 per cent.

Superfine count yarn prices rose by approximately 6 per cent in February, then declined successively in May and August by 3 per cent and 2 per cent respectively, and once again went up by 28 per cent in November, ultimately registering an increase of about 29 per cent at the end of the year compared to the prices prevailing in December 1949.

For the quarter commencing 1st April 1951, the 4 per cent cut in the prices of cotton textiles in operation from November 1949 was restored for grey and bleached varieties of coarse and medium cloth, and a price increase of 7 to 8 per cent in the case of fine cloth and 33 to 35 per cent in the case of superfine cloth was allowed. But the prices of fine and superfine cloth were reduced by about 1.14 per cent and 9.64 per cent respectively in the

quarter July to September 1951, and further by 4.54 per cent and 15.36 per cent respectively in the quarter October to December 1951.

During 1952, the price of coarse cloth was reduced by 16 to 24 per cent in the second quarter, but increased by 5.5 to 6.75 per cent in the third quarter; the price of medium cloth was reduced by 5 to 8 per cent in the second quarter, and further by 0.63 to 1.58 per cent in the third quarter; the price of fine cloth was increased by 1 to 2.96 per cent in the first quarter, reduced by 5 per cent in the second quarter, and increased by 8.9 to 11 per cent in the third quarter; and the price of superfine cloth was increased by 29 per cent in the first quarter, reduced by 9 per cent in the second quarter and further by 8.2 to 13 per cent in the third quarter. Prices of fine and superfine yarn were reduced by 7 per cent and 15 per cent respectively in the second quarter of 1952.

Due to a noticeable increase in the production of cloth during the first three quarters of 1952, the market prices of many varieties fell below the control prices. Hence, in October 1952 Government announced removal of price, production and distribution controls of most varieties of cotton textiles.

We may now briefly review the policy with respect to exports. The war time export controls had continued in the post-war period, and had been in operation even in the

period of de-control during January-July 1948. When controls were re-imposed in August 1948, Government had required compulsory packings, ranging from 70-80 per cent of mill cloth and yarn production, for controlled internal distribution, thus restricting the amount mills could export. The requirements had changed from time to time, and on some occasions, to relieve the situation created by unsold stocks, cloth and yarn packed for internal consumption was allowed to be exported. In March 1948, 25,000 bales of cloth were allotted to be exported to Pakistan in exchange for cotton delivered by them.

Subsequently, in addition to allocations to Pakistan, 350 million yards of cloth were earmarked for export during the 12 months ending June 1949. Later, in November 1948, positive steps were taken to promote exports, including reduction of the export duty from 25 per cent to 10 per cent ad valorem. The export duty was totally abolished in June 1949. In the same month an agreement was reached between India and Pakistan by which India agreed to license freely 1,50,000 bales of cloth and 1,00,000 bales of yarn in exchange for 4,60,000 bales of Pakistan cotton. Of the yarn allotment, 25,000 bales were to be of 20s count and above. In August 1949 India further agreed to license export of an additional 10,000 bales of 20s and above yarn, and to freely allow exports of handloom lungis and other types of handloom cloth upto 2,000 bales. Under the Cloth and Yarn (Export Control) Order of 1945, Government had

exercised control over the price of cloth and yarn exported to certain countries. In July 1949, with a view to stepping up exports, Government decided to extend price control over cloth exports to all countries. Mills were permitted to sell goods to an exporter at not more than 8 per cent over the standard price, while mills exporting cloth directly were permitted to charge upto 10 per cent of ex-mill prices. Exporters were allowed to charge upto 15 per cent over the standard price. All formalities regarding export licensing were reduced to a minimum. In respect of yarn exports, Government liberalized free licensing of particular counts in stages. By October 1949, free licensing of all counts for export to any destination was permitted.

In the beginning of 1950, Government set an export target of 732 million metres of cotton piecegoods for the period September 1949 to August 1950. Later in the year, due to internal shortage, restrictions were imposed on exports of coarse and medium varieties, while exports of fine and superfine cloth were freely permitted. Control on prices to be charged for exports was gradually abolished in the course of the year. As for yarn exports, in the beginning, Government permitted upto one third of the monthly production of mills, keeping in view the requirements of the handloom sector. But later, in September, in view of a shortage of yarn in the handloom sector, exports of yarn of counts 32s and below were disallowed. As for yarn

of counts 32s and above, mills were permitted to export upto a maximum of one fourth of their monthly production.

During 1951, mills were allowed to export, at first, upto 40 per cent, and later, upto 25 per cent, of monthly cloth production, and only 12.1/2 per cent of monthly yarn production. To discourage exports of coarse and medium varieties in short supply at home, a 10 per cent ad valorem export duty was charged on their exports in March 1951, and raised to 25 per cent in June. Restrictions were also placed on the proportion of exports of these varieties to total export packings.

In the opening months of 1952, there was a glut in the cloth and yarn market. As a result, on the one hand, distribution controls were abolished, at one stroke in some States, and gradually by the Central Government; and on the other, exports were liberalized. In the beginning Government permitted free licensing of only fine and superfine varieties of cloth, but by August 1952, even coarse and medium varieties were included. Controls over yarn exports, however, continued to operate, in view of the needs of the handloom sector.

War-time controls over the industry came to an end in June 1953. In the meanwhile, Government had announced their textile policy for the First Five Year Plan. In the following Chapter, we shall trace the evolution of the textile policy under the several Five-Year Plans.

CHAPTER VICOTTON TEXTILE POLICY SINCE INDEPENDENCEPHASE ONE: PROTECTION AND PROMOTION OF HANDLOOMS

The textile industry in India in 1950 consisted of (i) Mill sector, (ii) Handloom sector, (iii) Powerloom sector, and (iv) Khadi sector. The handloom and powerloom sectors are often referred to as the decentralised sector as distinguished from the mill sector. Khadi, which is a decentralised sector par excellence, has been dealt with in a separate Chapter (Chapter VIII).

In the following we give the output of cloth in the several sectors of the industry as it obtained in 1950:

Table 6.1: Output of Cotton Cloth in 1950

(in million yards)

Sector	Output	Percentage of total
Mill	3718	79.38
Handloom	810	17.29
Powerloom	147.93	3.16
Khadi	7.29	0.16
Total	4683.22	100.00

Source: Planning Commission, Khadi and Village Industries Board.

Thus, of the total output of cotton cloth, roughly 80 per cent was accounted for by the mills and 17 per cent by the

handlooms. Powerlooms and khadi accounted for only 3 per cent and less than 1 per cent respectively.

It may be noted that the figures given above by the Planning Commission do not quite tally with those given by the Textile Enquiry Committee (1954) and given by us in Table 5.4. The Planning Commission's estimate of mill output is slightly more than that given by the Textile Enquiry Committee and the Planning Commission's estimate of handloom and powerloom output together is below that given by the Textile Enquiry Committee. Moreover, as will be seen from the figures given by the Textile Enquiry Committee in Table 5.4, the production in 1950-51, particularly of the handloom sector was much below the same in earlier years. For instance, handloom output in 1949-50 was 27.6 per cent of total domestic production; the same in 1950-51 constituted 23.7 per cent.

A major objective of textile policy since Independence has been to limit the weaving capacity in the mills and to allow it to expand only in the handloom sector. With this objective in view, in regard to the textile industry, the Industries (Development and Regulation) Act of 1951 provided that installation of additional spindleage or looms, either for starting a new unit or expanding an existing one, would need a specific licence. Subsequent growth of the powerloom sector created a dilemma of choice between handloom and powerloom but the basic orientation in favour of the decentralised sector, whether handloom

or powerloom, stayed firmly rooted. In the beginning, that is in the early fifties, efforts were made to pursue a policy of limiting the spinning capacity in the mills as well as meeting all additional demand for cloth with hand-spun and hand-woven cloth. The policy proved impractical and had to be modified in its essentials. We shall discuss its course in Chapter VIII. In this Chapter, we shall trace the development of policy to protect and promote the handloom. In Chapter VII we shall describe the development of policy permitting change-over from handloom to powerloom.

In an earlier Chapter (Chapter I), we have narrated how by 1820, India's ancient cotton textile industry had yielded ground to British mill industry. The decline of India's handloom industry continued during the nineteenth century. First, with the development of the British textile industry, the Indian handloom industry lost its export market in England. Second, with growing imports of British textile goods in India, the Indian handloom industry lost a substantial part of its home market. But it seems that the imports affected the hand-spinning much more seriously than the hand-weaving. The hand-spun yarn could not compete with the imported mill-spun yarn and as soon as the handloom weavers adapted themselves to the mill-spun yarn, the hand-spinning practically died out. The new handloom industry based on mill-spun yarn could compete better with imported and Indian mill cloth. The

mill yarn was cheaper and was available in ample quantities and suitable qualities as regard twist, strength, and fineness. In the beginning, the mill yarn was mainly imported; as mentioned earlier, the imports of yarn increased from 26 million lbs. in 1855 to over 40 million lbs. by 1880. Subsequently, as the availability of Indian mill yarn increased, imports stabilised and handlooms began to depend on Indian mill yarn. For a long time there was no serious competition between the Indian mill industry and the handloom industry; rather the relation between the two was complementary. Initially, Indian mills concentrated on the supply of yarn to the handlooms and soon they began to supply all the coarse yarn required by the handloom industry. Imports of yarn were confined to yarn of higher counts only.

It seems that by the beginning of the twentieth century, the handloom industry, now fully based on mill-spun yarn of Indian manufacture, was stabilised at a new level. In Table 3.8 is given the annual consumption of cotton cloth broken into net imports (imports minus re-exports), mill production (net of exports) and handloom production for the years 1901 to 1925. It will be seen that around the beginning of the period, the annual consumption of cloth in India was 3500 million yards, of which about 2000 million yards came from imports, about 500 million yards from Indian mill production and about 1000 million yards from handlooms. It is around this level of 1000 million

yards of annual production that the handloom industry seems to have stabilised at the beginning of the century.

It is difficult to say how much ground the handloom industry had lost during the course of the 19th century because no firm data regarding the consumption of cloth at the beginning of the 19th century are available when domestic requirements were entirely supplied by the handloom industry. However, the consumption of cloth then could not be as high as 3500 million yards. The consumption of cloth in the country would have increased because of an increase in population and probably also because of an increase in the per capita consumption. Hence, it seems that the imports of about 2000 million yards of cloth and Indian mill production of about 500 million yards consumed at home were not entirely at the expense of the handloom industry; a part of it, probably a large part of it, went into increased consumption. But, of course, the imports from England and the Indian mill production certainly prevented the growth of the handloom production. Besides, as earlier noted, the Indian handloom industry had almost totally lost its export market.

However, whatever decline the handloom industry might have suffered during the 19th century, this was arrested by the end of the century and the handloom industry was stabilised at a new level. The handloom industry also retained its share in the domestic market which remained at almost 25 per cent during the entire period 1901-1925.

During this period the production of the Indian mill-made cloth expanded greatly but it went almost entirely to substitute the imports and not handloom cloth in the domestic market. Several factors helped in this matter. First, the handloom industry admitted certain technical improvements particularly the fly shuttle in the place of the throw shuttle. Second, the fiscal policy favoured the handloom industry though probably not consciously. As mentioned earlier, towards the end of the 19th century, the imports of cotton piecegoods were subject to an import duty of $3\frac{1}{2}$ per cent while the Indian mill cloth was subject to a countervailing excise duty of $3\frac{1}{2}$ per cent. As the handloom industry did not have to pay excise duty, it enjoyed an effective protection of $3\frac{1}{2}$ per cent from the imports as well as from the Indian mills.

Beginning with 1926, the excise duty was abolished while the import duty was successively increased. This gave an effective protection from imports to both mills and handlooms but left handlooms unprotected from competition of the mill industry. Further, while the import duty on yarn protected the mill-spinning, its burden fell largely on the handlooms as the greatest bulk of the imported yarn was consumed by the handlooms. Nevertheless, beginning with 1929-30 the handloom production increased and during the period 1930-1950 stayed around 1500 million yards and above. The share of handlooms in the domestic market also increased from about 25 per cent to 30 per cent and above.

Thus, though with the first onslaught of the British mill industry, India's ancient textile industry based on hand-spun yarn woven on handlooms had succumbed and vanished, a new handloom industry using mill-spun yarn had emerged and survived the competition of the mill industry, both foreign and Indian.

The first systematic investigation of facts about the handloom industry was undertaken by the Fact Finding Committee (1942). According to the findings of the Committee, the total number of handlooms in undivided India was about 2.02 million in 1942. Not all of these were employed on cotton weaving. Of the 2.02 million looms, 14.2 lakh were on cotton weaving, 99 thousand on wool, 3.2 lakh on silk, 26 thousand on art-silk, and 1.05 lakh on mixtures. The total number of full-time and part-time workers employed in the industry was estimated at 2.4 million, that is, 1.19 persons per loom. In addition to 2.4 million weavers the Committee estimated 3.6 million paid and unpaid assistants and 4 million others 'dependent' on the industry, thus putting the total population directly or indirectly depending on the industry at 10 million persons or 5 persons per loom.

Of the 2.02 million hand looms, 64 per cent were throw-shuttle looms, 35 per cent fly-shuttle looms, and only 1 per cent were of other categories including mechanically improved semi-automatic looms.

The Fact Finding Committee also noted the existence of

powerlooms in small units. The Committee estimated that there were about 15,000 powerlooms in 1941 and believed that their number was growing rapidly. Although, these were mostly old looms discarded by the mills, they were technologically superior to the handlooms and thus posed a serious rival to the handlooms.

On the other hand, hand-spinning which had almost totally vanished, was revived during the quarter century 1925-1950, as part of the Freedom Movement and by 1950, a small Khadi Sector producing hand-spun yarn and hand-woven cloth existed.

The genesis of policy regarding handloom and mills may be traced to the recommendations of the Fact Finding Committee (Handloom and Mills) 1942. We have made a reference to this Committee above as having made the first systematic investigation of facts about the handloom industry. Though the conflict of interests of the mill industry and handloom industry was recognised from the beginning, no systematic examination of the question was undertaken prior to the appointment of this Committee. In December 1940, the Handloom Conference attended by representatives of the Provincial Governments and of the mill and handloom industries recommended that a fact finding committee be appointed to examine the question. Accordingly, in January 1941 the Fact Finding Committee (Handloom and Mills) was appointed (Chairman: P.J. Thomas). The Committee submitted its report in February 1942.

We have already described above how the handloom industry had survived the competition from the mill industry almost unaided. The Fact Finding Committee drew pointed attention to this fact and concluded that the handloom industry had an inherent capacity to survive and deserved certain needed assistance. In the words of the Committee: "If after a hundred years of mill competition the handloom industry is still able to employ such large numbers, certainly it indicates that the Indian handloom industry has a unique capacity for survival." (p.201).

The Committee felt that the 'virility' of the industry was indicated by the commendable adjustments it made in regard to the methods of production, design, quality of work, etc. Fly shuttle sleys and dobbies and jacquards had been introduced and substantial improvements in workmanship had also taken place. It was quite clear that handloom weavers had adjusted their workmanship to modern requirements. Moreover, with the use of chemical dyes, handloom cloth was produced in a great variety of colours. In the sphere of shirtings and coatings, which was generally regarded as the preserve of the mills, certain varieties were successfully produced by handloom weavers and sold at competitive prices side by side with mill products. Hence, the Committee felt that "the handloom industry can still hold its own if only the proper environment is created." (p.202).

While justifying assistance to the handloom industry,

the Committee emphasised that in the absence of a general widening of employment opportunities in the Indian economic context, the collapse of the industry would involve the pauperization of a large population, and many flourishing towns and extensive rural areas would be deprived of their livelihood. Hence generally, the Committee argued that the Indian economic situation called for the following objectives of economic policy: (1) labour-intensive technology, (2) type of organisation of industry which ensured a wide diffusion of purchasing power rather than the type which did not, (3) organisation of production on a decentralised basis, and (4) protecting and promoting the growth of small-scale industry in the villages.

Labour-intensive technology was needed in view of the large unemployment and underemployment problems of the labour-surplus-capital-deficient Indian economy. The Committee said, "..... one of India's principal problems is the unemployment and under-employment of large masses of people. As a means of solving this problem, large-scale industrialisation in India has so far been conspicuously ineffective only about 1.1/2 million labourers have been absorbed in all industrial establishments coming under the Factories Act. Had a good many alternative opportunities been available in India, large-scale production of cloth would not have caused any great dislocation, but in the present state of things, we have to concentrate largely on occupations which call for a plentiful supply of labour

while economising on capital. As is well known, labour is cheap and abundant in India, while capital is dear and difficult to mass together. In such a state of things, labour-using and capital-saving occupations have a special function to discharge. The handloom industry exactly fits in with such requirements." (p.p. 205, 206).

A more wide-spread distribution of purchasing power was called for to rectify the tendency towards an unequal distribution of purchasing power which was "a fundamental cause of India's poverty." The proportion of the wage bill to the total cost of production being much greater in the case of small scale industries as compared to large scale industries, the organisation of industries on a small scale was preferable to the large scale type of organisation. In this connection, the Committee pointed out that "while the proportion of the wage bill to the total cost of production in mills is at the most 25, it forms 40% in hand-weaving with mill-yarn and nearly 75% in hand-weaving with hand-spun yarn." (p.206).

The Committee emphasised that decentralised production, even of the handicrafts type, "is not so uneconomical nor so inefficient as is often assumed." (p.206). The economic strength of small-scale decentralised industry was in the low fixed costs, low expenses for repair, maintenance, obsolescence and depreciation, low inventory charges, rapid turn-over of material and product, little or no storage and transportation costs, and security of employment. The

Committee felt that "we are fortunate in having in India an already well-established system of decentralized industries and it would be a great mistake to weaken it." (p.206).

Also, in times of war, due to the danger of aerial attacks on concentrated centres of industry, decentralized production had important military and tactical advantages. Hence the Committee urged that "when decentralization of production is becoming a dire military necessity, it would be sheer madness to neglect the admirable system of decentralized production already in existence in the country." (p.207).

It was also pointed out by the Committee that the village had been, in the past, the backbone of India's economic and cultural life and it would be a folly to disrupt it completely by a full-fledged industrialization.

The Committee recognised that these arguments could not be legitimately applied for bolstering any primitive industry, that efficiency of a certain degree had to be proved if even a small-scale cottage industry were to claim help from the State. In the case of the handloom industry, the Committee noted that (1) the handloom weaver had re-adjusted his loom and his skill to the use of mill-spun yarn; (2) technical efficiency had been largely enhanced by the wide adoption of fly-shuttle sleys, dobbies and jacquards; (3) if employment were normal and marketing orderly, a hand-weaver could earn at least 8 annas a day, which was not too small considering the meagre capital

equipment; (4) hand weaving could justifiably claim to be a suitable domestic industry for India, as the capital investment required was within the capability of the poorest person, and a normal Indian family was a suitable unit for working a handloom.

The Committee conceded that the powerloom could also be a domestic industry, but the capital equipment for it was about Rs.2000 against Rs.100 for the handloom. Besides, unlike the powerloom, the handloom could be repaired by any village artisan, and there was an inevitable tendency for the single unit powerloom to become a small powerloom factory. In view of the above, the Committee emphatically stated: "Hand-weaving as a cottage industry has, therefore, a strong case and its claim for a little help in regard to yarn supply, credit and marketing facilities seems amply justified. So far as we know hardly any of the other small-scale industries of India can make such a cogent claim for protection." (p.208).

The Committee argued that the handloom industry needed assistance of two kinds. First, protection from the competition of the mill industry. Second, measures to enable the handloom industry to reduce its costs arising partly because of inferior technology and partly because of high costs of credit and marketing for which the industry depended on a chain of parasitical middlemen.

In order to protect the handloom from the competition from the mills, the Committee considered several alternatives

which one may classify broadly into two categories: (i) restricting the weaving capacity in the mills, and (ii) reserving certain lines of production for the handloom. Regarding (i), the Committee rejected an extreme suggestion to abolish altogether weaving in the mills. The Committee felt that such a course, apart from doing great harm to a major national industry, would leave hardly any hope for ultimate reduction of costs and prices and eventual withdrawal of protection. The Committee thought the alternative suggestion of not allowing further expansion of weaving capacity in the mills was more reasonable but warned that such a measure would not be effective unless small powerloom factories were also brought under its purview. Regarding (ii), namely reserving certain lines of production for the handlooms, the Committee examined the possibility of not permitting mills to use low count yarn but seeing that, at that time, a large part of the mill production was within the range 10-30 counts, felt that there was not much room for placing restrictions on the mill production in this manner. The Committee therefore came to the conclusion that the practicable way to give some measure of protection to the handloom was to reserve certain varieties of cloth such as saris, gamchas, and checked chaddars for the handloom industry.

To enable the handloom industry to reduce its costs, the Committee visualised a scheme for the development of the handloom industry in which the technical improvements

and modifications were made in the framework of the domestic yarn system of production. For the rest, the Committee recommended a cooperative organisation which would provide credit, supply yarn and market the product and thus eliminate the chain of parasitical middlemen.

The Committee recommended the setting up of an All-India Handloom Board as a semi-public corporation in order to conduct research on the economic and technical problems of the industry and make arrangement for the supply of yarn and dyes to weavers and for the marketing of cloth. The Committee suggested two alternative measures for raising the necessary funds, namely, imposing a cess on mill cloth and powerloom production by the Central Government, or imposing a provincial sales tax on mill cloth. In the case of the first measure, either an excise duty could be levied on yarn manufactured by mills for consumption in their weaving section or for supply to another mill in order to discourage weaving in the mills and encourage the sale of yarn to handlooms, or a small cess could be levied on mill made cloth.

The Government accepted these recommendations and the first All-India Handloom Board was set up in 1945. Its main functions were to (i) provide for the supply of raw materials and arrange for the marketing of handloom products, and (ii) carry out research on technical and economic problems of the industry. As the Board ceased to function in 1947, these functions were taken over by the

Standing Committee of the Cottage Industries Board.

By its Industrial Policy Resolution of 1948, Government had recognised the importance of cottage and small industries in the national economy and in reference to the textile industry had agreed to examine how the mill industry could be made complementary to rather than competitive with the handloom industry. In pursuance of this policy and on the recommendations of the Standloom Handloom Committee, the Government appointed a Joint Committee of representatives of handlooms and mills to make recommendations regarding reservation of certain fields of production for the handlooms. On the basis of these recommendations, in April 1950, under the Cotton Textile (Control) Order of 1948, the Government prohibited mills and large scale powerlooms from manufacturing certain varieties of cloth, as for instance dhoties with borders containing coloured yarn and exceeding 1/4".

While Government was considering the demand for extension of the field of production reserved for handlooms in 1950, the textile industry was affected by a general slump in the early months of 1952 and the mills were forced to sell at prices below the statutory maximum ex-mill prices. The handloom industry also suffered similarly. To provide immediate relief to the handloom industry, Government placed restrictions on the production of dhoties by mills and also, prohibited piece dyeing of dhoties and sarees by mills. The production of dhoties by mills was

restricted to 60 per cent of their average production in 1951-52. The restriction came into effect from December 1, 1952. Production of dhoties by the mills in excess of quota thus fixed was liable to an additional excise duty under the Dhoties (Additional Excise Duty) Act of 1953. At the same time, in November 1952, the Government appointed a Textile Enquiry Committee (Chairman: Nityananda Kanungo) to examine inter alia, the extent to which each of the three sectors - handlooms, powerlooms and mills - may be utilised for the production of cotton textiles.

In October 1952 the Government appointed an All-India Handloom Board to look after the interests of the handloom industry. The Board recommended the reservation of at least 2 lakh spindles of the spinning mills, which were to be set up under the post-war expansion scheme, for handlooms, and the creation of a separate fund of about Rs.3 crores for financing the handloom industry through subsidy or loan to weavers' co-operatives and starting handloom sales organisations. The fund was created through the levy of a cess known as the Handloom Cess at 3 pies per yard on mill cloth. The Cess was levied under the Khadi and Handloom Industries (Additional Excise Duty on Cloth) Act, 1953. This was in addition to normal excise duty on mill cloth. It will be remembered that the excise duty on mill cloth was abolished in 1926. It was re-introduced in 1949 as a revenue measure at 3 pies per yard on coarse and medium cloth, 6.1/4 per cent ad valorem on fine cloth and at 25

per cent ad valorem on superfine cloth. In 1953 the duty on ad valorem basis was discontinued and substituted by specific rates.

Finally, as is evident from the following, in the textile targets of the First Five Year Plan, the handlooms were allotted a large share:

Table 6.2: Textile Targets of the First Five Year Plan

(in million yards)		
	Cloth output in 1950-51	Target for 1955-56
Mills	3,718	4,700
Handloom	810	1,700
Total	4,528	6,400

Source: First Five Year Plan, p.446.

Thus while the mill cloth output was allowed to be increased by only 26 per cent, the handloom output was targeted to more than double. In consequence, while the handloom output constituted only 17 per cent of the cloth output in 1950-51, it would constitute as much as 26 per cent of the cloth output in 1955-56. The required yarn would of course be all produced by the mills implying an increase of 39 per cent in the output of yarn (from 1179 million lbs. in 1950-51 to 1640 million lbs. in 1955-56).

It will be noticed that no specific targets were fixed for the powerlooms. The Government was of course aware of

their existence. As mentioned earlier, in 1943 Government had to assume powers under the Defence of India Rules to control production prices and distribution of cotton textiles including yarn. In pursuance, the first Notification was issued in 1944 to identify the cloth produced to the course of manufacture by requiring powerlooms to obtain a distinguishing number called 'Texmark' on application to the Textile Commissioner. Later, the Cotton Textile (Control) Order, 1948, stipulated that 'no person shall acquire or install any powerlooms except with the permission in writing of the Textile Commissioner. Subsequently, this Order was amended making it incumbent on the owners of looms to obtain written permission from the Textile Commissioner even for changing the location of powerlooms. In 1950 when for the first time Government reserved certain varieties of cloth for the handlooms, this advantage was also allowed to small establishments of powerlooms having less than five powerlooms. Thus the handlooms and small powerloom establishments were equated. On the other hand, between large powerloom establishments and mills, a distinction was made in favour of large powerlooms in the matter of production of certain varieties of cloth. The First Five Year Plan, though it did not fix any specific target for the powerlooms, noted that "Powerlooms are a comparatively recent development, which has brought to the fore the question of competition between the more advanced and the

less advanced forms of small industry. This is a different problem from the competition between large-scale industry and the corresponding small-scale industry". (p.330).

In view of these observations of the First Plan, it is relevant to note that the Fact Finding Committee (1942) had emphasised the dangers of competition from the powerlooms. The Committee had said: "..... a more serious rival to the handloom industry than the mills has arisen in the small-scale powerloom factories. This rival combines in itself, owing to its medium-scale production, the advantages of both mills and handlooms. It can utilise cheap electric power and avail itself of modern appliances in weaving. The competition of powerlooms is a growing phenomenon; about 15 years ago handlooms had nothing to fear from them. Powerlooms are not subject to any irksome restrictions such as Factories Act or special taxes. As such they are sources of competition in important lines to the mills as well. The cost of production in powerlooms is comparatively low owing to small overhead charges and economies of mechanical production. Thus, the contest has now become a three-cornered one." (p.174).

The Textile Enquiry Committee (Kanungo Committee) which submitted its report in September 1954 took exactly opposite view and made a strong case for powerloom against the handloom. The Committee opined that the handloom, a relatively inefficient tool of production, was not suited for the manufacture of any particular type of fabric so as

give a better quality and lower price, and would eventually have to be eliminated. But neither was immediate switch over to mill technology, leading to large-scale unemployment and prohibitive capital cost, thought desirable. In the circumstances, the Committee felt that a phased conversion of handlooms into small powerlooms, which were "almost invariably a step in the evolution of the industry from a predominance of the handloom to one of the powerloom", would be the one solution to the problem posed by the handloom, which would fulfil the "twin objectives of maintaining employment in the short run and securing the best possible efficiency in the long run." Accordingly, the Committee recommended a phased programme of conversion of handlooms into powerlooms and suggested that at the end of 15 to 20 years, barring some 50,000 handlooms of the fly-shuttle or throw-shuttle type manufacturing special fabrics, the entire handloom sector should be converted into improved semi-automatic handlooms or decentralised powerlooms. It was envisaged that there should be two sectors for the textile industry, namely, 'handloom-cum-improved handloom-cum-small scale powerloom industry' and 'large scale powerloom-cum-organised mill industry'. It was proposed that the entire additional cloth requirement for the Second Plan period estimated at 1600 million yards, should be produced by the decentralised sector either on the improved handloom or the powerloom. The production rate of an improved handloom was estimated to be 20 to 24

yards per eight hour day while that of the powerloom, 30 yards per eight hour shift. Taking the average production of an improved handloom/powerloom to be about 25 yards per day, the Committee estimated that about 2.13 million improved handlooms/powerlooms would be needed to produce the target additional output.

In the course of time, the improved handloom should again be converted into powerloom, for it was the Committee's 'firm belief' that "no one should be compelled by economic or other necessity to spend the best part of his time on the preoccupation of earning his daily bread". (p.47). For this purpose, the production of "the largest volume of goods in the smallest possible time" would have to be ensured after the initial phase. Thus, the ultimate replacement of the handloom by the powerloom was 'inescapable'.

The Kanungo Committee's proposal to 'convert' handlooms into powerlooms was, of course, stoutly opposed by the All India Handloom Board which held that such a scheme would lead to large scale unemployment among weavers. From the very beginning the Board had been convinced that it was possible to make the handloom industry viable by organising it on sound cooperative lines and ensuring proper marketing of handloom fabrics. The setting up of the Board in 1952 had marked a new era for the handloom industry, as the Board had immediately launched a massive programme for increasing production, improving marketing, and organising the industry on co-operative lines. For the Second Plan period, the

Board had worked out a plan to increase the number of handlooms in the cooperative fold from an estimated 6.8 lakh looms in 1953 to 11.3 lakh looms by 1960. It was thus natural that an alternative plan which visualised the progressive elimination of handlooms was rejected outright by the Board.

In the meanwhile, the priorities set by the Draft Second Plan allotted the major portion of the economy's planned investment to basic and heavy industries. For a balanced pattern of industrialization it was envisaged that increase in the supply of consumer goods should come from the decentralised sector. Hence, in June 1955, the Planning Commission appointed the Village and Small Scale Industries (Second Five Year Plan) Committee (Chairman: D.G. Karve) to prepare a scheme for the development of village and small scale industries with the following objectives: (i) the bulk of the increased production of consumer goods in common demand has to be provided by the village and small-scale industries; (ii) the employment provided by these industries should progressively increase; and (iii) production and marketing in these industries should be organised, in the main, on cooperative lines. The Committee submitted its report in October 1955.

The Committee argued that existing as well as additional demand for the products of traditional industries engaged, in the main, in the production of consumer goods, should be met from a fuller utilisation of

the labour and capital already employed in these industries. This was with a view to (a) avoiding technological unemployment in these industries which would occur if the existing structure was to be replaced with a different one, (b) providing relief to the substantial number of persons suffering from unemployment in these very industries, in occupations in which they were already trained and for which equipment existed, (c) fully utilising existing personnel and capital to produce the required goods rather than replace them with scarce resources of capital in creating substitutes for them.

In regard to the textile industry in particular, the Committee recommended that all additional demand for cotton cloth during the Second Plan period should be met exclusively by the handloom industry. "We therefore recommend," declared the Committee, "that production by mills and powerlooms should be limited to the level already reached i.e., to 5000 million yards (assuming an export target of 1000 million yards), and 200 million yards respectively and all the increased demand during the plan period should be met by expansion of handloom production." (p.35).

Handlooms were to expand production to a total of 3200 million yards by 1960 by bringing idle looms into use, by introducing technical improvements on existing looms, and by bringing a large number of looms under the co-operative organisation. According to the Committee's

estimates, of a total of 20 lakh commercial looms in the country, 4 lakh looms were idle. Of the idle looms, at least 2 lakh looms were to be brought into use under the All India Handloom Board's programme of bringing 4.5 lakh looms under the co-operative fold during the Second Plan period. To improve the efficiency of working looms, the Committee recommended the substitution of the throw-shuttle loom by the fly-shuttle in areas where the throw-shuttle was still in use, and equipping handlooms with take-up attachments and pick-up regulators.

These recommendations found support in the emerging industrial policy as expressed in Government's Industrial Policy Resolution approved in April 1956. Inter alia, the Resolution emphasised the role of cottage, village and small scale industries in the national economy and noted that in relation to some of the problems that need urgent solutions, these industries offer some definite advantages: they provide large scale employment; ensure a more equitable distribution of national income and facilitate an effective mobilisation of resources of capital and skill which might otherwise remain unutilised. The Resolution recognised the need to improve the competitive strength of these industries and for that purpose the importance of such measures as promotion of technical improvements and organisation of industrial cooperatives to supplement the protective measures already in operation.

CHAPTER VIICOTTON TEXTILE POLICY SINCE INDEPENDENCE PHASE TWO:CHANGE-OVER FROM HANDLOOM TO POWERLOOM

The Second Five Year Plan was presented to the Lok Sabha in May 1956. But the production programme of the textile industry was not then final; it was announced a month later. It envisaged increasing the output of cloth from 6700^{million} yards at the beginning of the Plan (1955-56) to 8400 million yards at the end of the Plan (1960-61). The additional output of 1700 million yards was allocated to different sectors as under:

Table 7.1: Sectoral Allocation of Additional Cloth Output Under the Second Plan

Sector	Target Output million yards
Handloom	700
Powerloom	200
Khadi (Ambar)	300
Mills	350
To be allotted later	150
	1700
Total	1700

Source: Statement on the Cotton Textile Policy by the Minister of Commerce and Industry, June 1956.

Thus, as in the First Plan, the handloom sector was allocated the largest share in the additional production

of cloth. At the same time, powerlooms received a separate mention and allocation and a scheme, on lines recommended by the Textile Enquiry Committee (1954), to install 35,000 powerlooms in the co-operative sector of handlooms was included in the Plan. Financial assistance was provided for the purpose which included a loan of 87.5 per cent of the share capital of Rs.100 each for membership of the co-operative societies, a loan of 100 per cent of the cost of powerlooms plus motor and provision for meeting the capital expenditure for preparatory and processing plants, half as grant and half as loan, an outright grant towards recurring expenses in connection with the servicing of the looms and technical instruction, and finally a loan at the rate not exceeding Rs.500 per loom towards working capital. The State governments were requested to draw up schemes on this basis.

The response from all the States was not equally encouraging. By the end of the Second Plan, only 13,500 powerlooms were sanctioned and 8,885 were installed under the scheme. On the other hand, it came to light that, even in 1959, a large number of powerlooms had come into existence without any governmental sanction and in contravention of the restrictions placed on the acquisition and installation of powerlooms. Government was concerned about the repercussions of this development on employment and, in consultation with the Planning Commission, decided not to sanction any further schemes for the installation

of powerlooms in the co-operative sector. While no further sanctions were to be given for the installation of powerlooms under the scheme, the State Governments were informed that "where irrevocable commitments have already been made, the existing sanctions will hold good and the schemes would be allowed to be completed in accordance with the general pattern of assistance," and that in cases where irrevocable commitments had not been made, the sanctions would be cancelled. The State Governments were asked to ascertain and report the number of powerlooms in respect of which further implementation would be necessary in the Third Plan in accordance with this directive.

During 1956-62, Government made a series of efforts to get all unauthorised powerlooms registered but apparently with little success. We may quote the Powerloom Enquiry Committee (1963) on this subject: "In regard to the regularisation of unauthorised powerlooms, from time to time, Government were apparently in two mind This could be traced to the policy adopted by the Government in the matter of regulating the powerloom sector in the country. Government was not anxious to increase the number of powerlooms and the Control Orders and regulations were designed effectively to curb the increase in the size of the powerloom sector. But the effectiveness of this policy was considerably diluted by the conditions created by Government's policy in the matter of reservation of fields of production and

pattern of excise levy. The restriction placed on the loomage expansion in the textile mill sector together with increasing demand for cloth in the country naturally opened a wide area for the decentralised sector to expand. In the decentralised sector itself, as between handlooms and powerlooms, the powerlooms with their better technique and higher productivity, were in a more advantageous position than the handlooms. In the matter of production of varieties of cloth reserved for the benefit of the handloom sector, the small powerloom establishments having four looms and less were placed in the same position as the handloom under the Government regulations. The excise authorities also have been allowing full exemption from excise levy for these small powerloom establishments. In the situation thus created, it was but natural that a large number of small powerloom units should have entered the field, albeit unauthorisedly. As a consequence, an anomalous position was created under which the portion of the policy relating to the restriction of the growth of the powerloom sector was practically rendered ineffective by the policies adopted in the equation of small powerloom units with the handlooms for the purpose of excise levy and production of reserved varieties." (pp 39-40).

At the beginning of the Third Five Year Plan, the mill industry tried to secure a somewhat larger allocation in the plan target. The Indian Cotton Mill Federation (established in March 1958), in a memorandum submitted in

April 1959, suggested that the target of cloth output at the end of the Plan (1965-66) should be fixed at 9600 million yards and 6300 million yards of it should come from the mill sector and the balance of 3300 million yards from the other sectors. The Planning Commission did not agree. It fixed the target cloth output at 9300 million yards and allocated it as under:

Table 7.2: Textile Targets in the Third Plan

in million yards	
Sector	Target output
Mills	5800
Decentralised Sector (handloom, powerloom and khadi)	3500
Total	9300

Source: Third Five Year Plan p.487.

As things turned out, the mill industry was in a state of almost continuous crisis throughout the Third Plan period and the output of mill cloth in fact declined. A controversy had also arisen in interested circles as to the correctness of official statistics relating to handloom and powerloom production and many claimed that much of the increase shown in official statistics as in handloom production was in fact due to an increase in the production of powerlooms. Government's own position towards powerlooms had also remained rather ambivalent; it did not

quite accept the recommendations of the Textile Enquiry Committee (1954) but also did not outline a clear policy relating to powerlooms vis-a-vis handlooms. A statement of this policy was clearly called for. Hence, in January 1963, the Government appointed the Powerloom Enquiry Committee (Chairman: Ashok Mehta) to consider the relative role to be played by powerloom vis-a-vis handloom and mill industry and to recommend targets of production. The Committee submitted its report in June 1964.

Without making a direct reference to the earlier recommendations of the Textile Enquiry Committee (1954), the Powerloom Enquiry Committee made much the same case for powerlooms vis-a-vis handlooms on the one hand and mills on the other. Government accepted most of the recommendations of the Committee, in particular, it endorsed the suggestion for installation of one lakh additional powerlooms in the decentralised sector. In pursuance, 105,000 powerlooms were allotted to the States and Union Territories in 1966; but only 14,000 were installed by the end of 1969.

In September 1963 that is while the Powerloom Enquiry Committee was still deliberating, the Planning Commission, in preparation of the Fourth Plan, appointed a Working Group for the Handloom Industry (Chairman: A.V. Venkateswaran). It submitted its report in June 1964. It took more or less the same line vis-a-vis the powerlooms. The Group felt that as a matter of long term

policy for handlooms, a phased programme of conversion of handlooms into powerlooms was "inevitable". The Group said, "There are strict limitations to the quantitative productivity of a handloom and consequently to increasing the earnings of handlooms. No matter what technical improvements are effected in a handloom and however efficient the worker is, it is inconceivable that an ordinary handloom would be able to earn anything like a living wage." (p.13). On the other hand, the Working Group cited considerable evidence of a growing urge on the part of weavers to switch over to powerlooms even in places like Salem, a stronghold of the handloom industry. The only solution to increasing wages, it was felt, was introduction of powerlooms, and accordingly, the Group recommended that 60,000 powerlooms be introduced in the handloom sector during the Fourth Plan period. These powerlooms were to be allowed to weavers preferably in the co-operative fold.

Unfortunately, the Fourth Plan, then under preparation, had to be abandoned. Because of the border conflict with China in 1962 and with Pakistan in 1965, not only the textile industry but the entire Indian economy was in a crisis throughout the period of the Third Five Year Plan. The conditions were most critical in 1965, and the Fourth Plan, which should have begun in April 1966 had to be postponed; its Draft was abandoned without finalising. The economy recovered in 1968: there was a spectacular increase in agricultural production; there was a slow but

steady recovery of industrial production; and there were signs of a certain stability of prices. Hence, the Fourth Five Year Plan was initiated in April 1969. The gap was covered by three annual Plans. (1966-69).

To help take a co-ordinated view of the development of the textile industry in the revised Fourth Plan, in December 1968 the Planning Commission appointed a Working Group (Chairman: K.B. Rao), which submitted its report in February 1969. In relation to the role that might be assigned to the decentralised sector, the Working Group said that two approaches were possible. In the first approach the existing system of allocation of targets between the mill and the decentralised sector could be continued with a combination of fiscal and other incentives. In such a case, the allocation of targets would work out to 5100 million metres for the mill sector and 4250 million metres for the decentralised sector, on the basis of the ratio of 6:5 suggested in the erstwhile draft of the Fourth Plan. The second approach was to ensure the conditions for suitable expansion in the decentralised sector through appropriate adjustments in the fiscal levies without necessarily earmarking or allocating particular production targets for the mill or decentralised sector.

The production targets for the textile industry in the Fourth Plan were as under:

Table 7.3: Textile Targets under the Fourth Plan

	Target for 1973-74 in million metres
Mill made cloth	5100
Man made fabrics	1500
Handloom, powerloom and khadi	4250
	<u>10,850</u>

Source: Fourth Five Year Plan, p.61.

Evidently, the Planning Commission accepted the first of the two approaches indicated by the Working Group and adopted the ratio of 6:5 for allocation of targets between mills and the decentralised sector. Within the decentralised sector, no separate allocation was shown for powerlooms. Incidentally, for the first time, man-made fabrics appeared in the plan targets, with a substantial allocation of 1500 million metres as recommended by the Powerloom Enquiry Committee (1963).

In pursuance of a decision of the Handloom Conference held in September 1973, Government appointed a High Powered Study Team (Chairman: B. Shivraman, then a member of the Planning Commission) to draw up a programme of development of the handloom industry during the Fifth Five Year Plan. The Study Team submitted its report in July 1974.

The Study Team showed considerable concern regarding

the competition from the powerloom that the handlooms were facing and argued that it would be undesirable to let it go unchecked. We quote: "There has been an argument that powerlooms need encouragement because they represent the next stage in the technological development of the handloom industry. It is this argument which has been largely responsible for the slow erosion in the taxation of the powerloom sector. Whatever the reasons for considering this changeover to be feasible, it is evident that our present appreciation of the rural economy of this country does not allow us to kill any handlooms on the plea that some of the handloom weavers might change over to a higher technology in powerlooms. A powerloom displaces six handlooms. In our strategy for rural employment, we need viable industries in the decentralised sector which can provide a living wage. Handloom is eminently suited for this purpose. Increased consumption should be actually supported by increasing the number of handlooms and their efficiency As such it is no more necessary to give any special incentives to powerlooms and encourage their growth. In our view, the problem is rather one of meeting the challenge which the handlooms face from the powerloom sector in the form of illegal unlicensed powerloom poaching upon the yarn supply that should legitimately go to the handloom sector, poaching in the varieties reserved for the handloom sector and poaching in the market of handlooms by spurious handloom goods. Our view is that it is

essential to offset the advantage that the powerlooms have over the handlooms with their better technology and almost the same level of excise vis-a-vis the handloom sector. This has to be set right so that the powerlooms may not be in a position to underbid the handlooms in their legitimate market." (pp.61-62; paras 9.7, 9.8).

To see how the powerlooms enjoyed a large advantage in excise vis-a-vis the mills and how with this advantage coupled with technology almost comparable with that of the mills, they could compete out the handlooms, a brief review of the excise duty on cotton textiles will be useful. As mentioned earlier, the excise duty on cotton textiles which was abolished in 1926 was re-introduced in 1949 and in 1953 an additional cess called the Handloom Cess was levied on mill-made cloth. The handloom production was exempt from these levies and has remained so. Indeed, one purpose of these levies on mill-made cloth was to offer the handlooms a measure of protection. As it turned out, the powerlooms also derived a large part of this protection. Until 1955, the powerloom production was also exempted from these levies. In 1955, powerlooms were brought under the excise fold, though only partially. Powerloom units with not more than four powerlooms were totally exempt while units with more than four powerlooms were subject to graded compounded rates of excise duty which were much lower than what the mills paid. In July 1959, the total exemption from excise duty of powerlooms

in units of 1-4 looms was extended to co-operative societies of powerloom owners provided the number of looms in the society did not exceed 4 per member. Thus, in 1963 when the Powerloom Enquiry Committee reviewed the position, powerloom units with 1-4 looms were totally exempt from excise duty and so were the cooperatives with less than four looms per weaver. Units with 50-300 looms paid at 75 per cent of mills' rates and units with more than 300 looms paid at full rates as for the mills. For units with 5-49 looms, rates varied by the size of the unit and also by the fineness of the cloth. In the following are shown the rates then applicable to these units expressed as percentages of rates applicable to the mills.

Table 7.4: Excise Duty on Powerlooms as per cent of duty on Mills (1963)

Number of looms	Coarse	Medium B	Medium A	Fine	Superfine
1-4	nil	nil	nil	nil	nil
5-9	29	21	17	15	11
10-24	40	33	27	30	21
25-49	60	44	35	57	40
50-300	75	75	75	75	75
300 & above	100	100	100	100	100

Source: Powerloom Enquiry Committee (1963).
Annexure VI p-207.

Thus, even after the powerlooms were brought under the

excise fold in 1955, they continued to enjoy considerable advantage over the mills. The advantage was greater for powerlooms in smaller size-units and providing superior varieties of cloth.

A major effect of this structure of excise duty was an abnormal growth of powerlooms. The Powerloom Enquiry Committee observed: "The growth has been almost entirely in the exempted sector and it is clear that complete exemption from excise levy has been a major motivating factor which promoted the large growth of unauthorised powerlooms in the country." (pp.86-87). In elaboration, the Committee said, "This brings us to certain unusual arrangements whereby the benefits of concessions and exemptions from excise levy allowed to the owners of small powerloom establishments were reported to have been taken advantage of by financiers and middlemen, including textile mills. The modus operandi adopted would seem to have been for the parties to control a number of small powerloom units under certain b^enamⁱ arrangements. The parties supply yarn mostly in sized beams to the powerloom owners and take back the cloth, paying only the conversion charges to the loom owners. In effect the relationship between these parties and the powerloom owners/weavers is one of contracting for job work though the actual transactions are fictitiously shown separately as sale of yarn and purchase of cloth We consider that prima facie the measure of protection given to the small powerloom units

by way of exemption from excise levy should be such as to enable them to market their goods at competitive rates and obtain a reasonable margin as means of livelihood. The entire objective would be defeated if outsiders entered the field and appropriated the benefits of such concessions The growth of powerloom sector in this manner cannot be considered as in any way abnormal or healthy. While we appreciate the normal role which the trade should play in the marketing of powerloom cloth in the country, we do not consider that a fortuitous benefit should accrue to a class of intermediaries, by whatever name they are called, particularly when it is a question of Government sacrificing revenues, nor would it be in the long run interests of the powerloom owners to reduce themselves to the position of wage earners. From the evidence available to the Committee, it is clear that the small powerloom owners/weavers are very much in the grip of these financiers and intermediaries and are being exploited and put to hardship." (pp.88-89).

In view of these considerations, the Committee recommended: "The existing exemption for powerloom establishments, at compounded rates or otherwise, may be discontinued and the incidence shifted as higher duty at the two key points-yarn and processing-where excise surveillance will be more effective." (p.p.94-95).

Excise duty on mill-made yarn was first introduced in 1961 and revised upwards in 1962. In 1963-64, a surcharge was levied on the excise duty at the rate of 20 per cent

for yarn of counts upto 34s and 33.1/3 per cent for the higher counts. From the beginning, as a measure of relief to the handloom weavers, yarn in hank form upto and including 40s was exempt from excise levy and yarn in hank form of counts higher than 40s was charged at concessional rates. In 1963-64, the excise duty (inclusive of surcharge) on yarn in hanks and in other forms was as under:

Table 7.5: Excise Duty On Yarn in 1963-64

Counts (1)	Excise duty in rupees per Kg.	
	In hank form (2)	In forms other than hanks (3)
Upto 16s	Nil	12
17s to 34s	Nil	16.2
35s to 40s	Nil	24
41s to 47s	10.6	24
48s and above	22.6	36

Source: Report of the Powerloom Enquiry Committee, 1963, p.90.

The exemption and concession on yarn in hank form was meant for handlooms. But the Committee noted: "Although it is correct to say that the yarn consumed by the powerlooms is mostly in the form of cones and sized beams, some portion of yarn is also being consumed by them in hank form, particularly where yarn has to be dyed for the production of items like sarees. In certain centres, even producing grey varieties of cloth, powerlooms are reported to be

using yarn in hank form on account of the non-availability of sized beams and sizing facilities." (p.90).

The Committee recommended that the exemption and concessions on yarn in hank form may be continued and that yarn in all other forms should be subjected to duty as it already was. However, it recommended a higher rate of duty on yarn delivered in sized beams, whether sized by the composite mills or independent sizing factories.

Regarding the processing duty, we may note that until 1958, excise duty on mill-made cloth was levied according to the category of cloth, i.e., coarse, medium, fine, and superfine and no distinction was made as to whether the cloth was grey or processed. The idea of adding a surcharge on processed cloth emanated from the recommendations of the Textile Enquiry Committee (1958) namely that "both on grounds of equity and on the grounds of fairness of the mills without processing equipment, it is essential that the pattern of excise duty is changed to provide for a closer approximation to ad valorem duties." The value of fabrics in grey stage, certain surcharges were imposed on processed cloth depending upon the type of processing involved. Until 1962, powerloom cloth was exempted from such processing surcharges. In April 1962, processing duty was imposed on powerloom cloth at a concessional rate of 80 per cent of the standard rate applicable to the mills provided the processing was done by 'independent processors'. If the powerloom cloth was processed in

composite mills, no such concession was extended. The Committee recommended that the concessional rate should also be available to those powerloom units which process their own cloth.

The Government did not accept all these recommendations but the duties were to some extent rationalised. Until 1964-65, the powerloom paid compounded duty based on the loomshifts worked. From 1965-66, the system was changed to a rationalised compounded rate and made payable on the looms installed in a unit. In 1965-66, the rate was Rs.25 per loom per annum on units with 1-4 looms. In 1969-70, the rate was increased to Rs.50 but in 1971-72 it was drastically reduced to Rs.10. In 1974-75, when the High Powered Study Team on the Problems of the Handloom Industry submitted its report, the rates were Rs.10 per loom on units with 1-4 looms, Rs.75 on units with 5-24 looms and Rs.150 per loom on units with 25-49 looms. As the majority of the powerlooms were shown as belonging to the smallest units, the effective rate was only Rs.10 per loom.

Probably as a result of the recommendations of the Powerloom Enquiry Committee (1963), the yarn duty in 1967-68 made a distinction between sized and unsized yarn. However, the distinction was abolished in 1969-70 which resulted in a reduction of duty on sized yarn used by the powerlooms.

In 1974-75, the powerlooms paid only the compounded duty and the extra duty on yarn and therefore enjoyed

great advantage over the mills. In the following Table is given the incidence of excise duty on grey fabrics produced by the powerlooms and handlooms as percentage of duty on mill-made fabrics:

Table 7.6: Incidence of Excise Duty on Grey Cotton Fabrics produced by the three sectors of the Cotton Textile Industry - 1974-75*

(expressed as percentage of duty on mill fabrics)

Variety (1)	Mill made fabrics (2)	Powerlooms in the decentralised sector			Handloom fabrics (6)
		1-4 (3)	5-25 (4)	25-49 (5)	
Superfine	100	15.31	16.29	17.26	6.73
Fine	100	18.09	19.56	21.24	Nil
Medium A	100	25.25	28.21	31.56	Nil
Medium B	100	23.74	27.40	31.63	Nil
Coarse	100	26.88	32.73	39.48	Nil

* Inclusive of the yarn duty payable by the handloom sector, the yarn duty and the compounded levy payable by the powerloom sector and the excise duty, yarn compounded levy and the handloom cess payable by the mill sector.

Source: Report of the High Powered Study Team On the Problems of Handloom Industry, pp.60,61.

Commenting on the above, the Study Team observed:

"The above statement shows clearly the tremendous advantage which the powerloom sector is getting in competition both with handlooms and the composite mill sector. It is this comparative advantage which, in the view of the Team, has lavishly encouraged illegal mushrooming of powerlooms as

also malpractices in the powerloom sector. This will also explain to some extent how difficult it is to bring to book any powerlooms which disregard the various provisions of the Essential Commodities Act. This phenomenon is too well known to need any further expounding by this Team. The main purpose of drawing attention to this state of affairs is to plead that unless the initial intention of taxing the powerloom sector to a larger extent than the handloom sector and utilising the funds for the improvement of the handloom sector is pursued intensively, any legislative provision for controlling the production of the powerloom sector would be infructuous." (p.61).

Hence, the Study Team recommended:

"The advantages that the powerlooms have over the handlooms with their better technology and almost the same level of excise vis-a-vis the handloom sector has to be set right so that the powerlooms are no longer in a position to underbid the handlooms in their legitimate markets. The excise differential between the powerlooms and the handlooms should be of the same order as between the composite mill and the handloom sectors."

"The Tax mark system should be reintroduced and strictly enforced with the legitimate objective of taxing the powerloom cloth. Till such a system is introduced, the excise may be levied on the yarn utilised by the powerlooms, as suggested by the Ashok Mehta (Powerloom Enquiry) Committee - 1964."

"Steps should be immediately taken to impose a handloom cess in powerlooms to close the gap in the incidence of excise on powerlooms vis-a-vis the mill sector, in respect of all qualities of cloth produced. The income derived from this cess should be used specifically for the development of handlooms."

"Till an equitable tax structure is evolved the excise to be levied on powerlooms shall be based on a compounded levy, a duty on yarn and a processing duty."

"The compounded levy may be fixed at Rs.300 per powerloom irrespective of the number of looms in a unit. The extra compounded levy shall be imposed in favour of the handlooms. The entire levy may be treated as a handloom cess and the amount that is at present realised as compounded levy may be deducted and made payable to the contingency fund and the balance credited to the Handloom Fund."

"The textile duty on free yarn, other than hanks, may be jacked up to the extent necessary for bringing the yarn duty on powerlooms to a reasonable level vis-a-vis the mills. The additional duty may be collected in the form of a handloom cess on yarn for the benefit of handloom development. As the composite mills sector uses its own yarn it should be possible, in the excise frame, to leave it out of the purview of this cess."

"The cess may tempt the powerloom interest to put in mechanised contrivances to reel hank yarn suitably for

powerloom use. Such reeling should be prohibited with punitive measures. Part of the cess levied should be utilised to build up a strong excise organisation to ensure that such misuse of yarn does not take place."

"The processing duty in case of powerlooms should be jacked up by at least 20 per cent so that some part of the differential in the overall incidence of taxation between the mill and powerloom sectors is covered. This extra levy shall be in the form of a handloom surcharge creditable to the Handloom Fund." (Paras 82 to 89, pp. xxvi-xxvii).

The Government agreed that the gap in the incidence of excise duty on mill-made cloth and powerloom cloth has widened over the years in favour of the latter and that it needs to be reduced. But, it said, "for various reasons, the excise levy on powerloom sector cannot be fully at par with that on the mill sector." (Gazette October 24, 1975).

The Draft Fifth Five Year Plan (1974-79) adopted the target of 10,000 million metres of cotton cloth production in 1978-79 broken as under:

Table 7.7: Draft Fifth Plan Targets for Cotton Cloth

(in million metres)

Mills	5200
Handlooms	3000
Powerlooms	1800
Total	10,000

Source: Draft Fifth Five Year Plan (1974-79) p.149.

but the targets accepted by the National Development Council in the finalised Fifth Plan are shown below:

Table 7.8: Fifth Plan Targets for Cotton Cloth

(million metres)

Mills	4800
Handlooms & Powerlooms	4700
Total	9500

Source: Fifth Five Year Plan p.66.

Thus, in the finalised Plan, there was no separate target allocation for handlooms vis-a-vis powerlooms.

The Textile Policy under the Sixth Five Year Plan (1980-85) continues to emphasise the basic objectives of policy adopted in the earlier Plans, namely, "to make available textiles in adequate measure and at reasonable prices for the population and at the same time to encourage

and support the production of cloth in the handloom sector to the maximum extent possible. (p.267). The overall requirements of textiles covering cotton, blends and man-made fabrics are estimated at 13,300 million metres including exports of 1,400 million metres in 1984-85. The pattern of production in the three sectors projected for 1984-85 is as follows:

Table 7.9: Textile Targets Under the Sixth Five Year Plan

(in million metres)				
Sector	Cotton	Non-cotton	Blends	Total
Mill	3500	400	1000	4900
Powerloom	2600	1200	500	4300
Handloom	3150	200	750	4100
Total	9250	1800	2250	13,300

Source: Sixth Five Year Plan (1980-85), p.268.

Thus, the target for powerloom now exceeds that of the handloom. This is mainly because of the large expansion of the non-cotton cloth production, two-thirds of which is allocated to the powerloom. But even in respect of cotton cloth, in comparison with the allocation under the Fifth Plan, the allocation under the Sixth Plan is progressively more favourable to powerlooms. It seems therefore that the Textile Policy is acquiescing in the inevitable and irreversible trend of the handlooms, inspite of the best efforts to protect it, yielding ground to the powerlooms.

Nevertheless, even when the powerlooms totally displace the handlooms, the net achievement of the Textile Policy pursued over the past thirty years, namely, decentralisation of power-weaving in the country, shall remain.

CHAPTER VIIIHAND-SPINNING

It was noted in an earlier Chapter that hand-spinning had practically vanished with the growth of the mill industry. It was revived during 1925-1950 as part of the Freedom Movement. In 1923 the Congress Party set up an All India Khadi Board and Pradesh Boards to organise and expand the hand-spinning and hand-weaving industry all over the country. Later, in 1925, these Boards were replaced by an autonomous body, namely the All India Spinners' Association. The AISA has been responsible for the pioneering work of reviving the industry. After Independence the AISA prepared an ambitious scheme for meeting the clothing requirements of the country through hand-spinning and hand-weaving and at the same time, giving employment to lakhs of persons in rural areas. The scheme was discussed with the Planning Commission in 1951. Although the Planning Commission did not incorporate the scheme in the First Plan, it recommended the creation of a central organisation which could "give close attention to the problems of village industries and help create favourable conditions for action by State Governments, constructive organisations and village Co-operatives."* Accordingly, Government constituted the All India Khadi

* First Five Year Plan, p.316.

and Village Industries Board in January 1953 to prepare and organise programmes for the production and development of khadi and village industries, including training of personnel, manufacture and supply of equipment, supply of materials, research and study of economic problems of different industries. Subsequently, a large provision was made in the Second Plan for the promotion of village and small scale industries and it was felt that it would be necessary to create a statutory body as more appropriate than a Board for implementing such a large programme. Hence, under the Khadi and Village Industries Commission Act of 1956, the Khadi and Village Industries Commission was set up to replace the Khadi and Village Industries Board.

Between 1954-1958, on the recommendations of the KVIB most State Governments set up statutory State Boards. Extensive organisation was created, consisting of a central office, zonal offices and a corps of organisers. The Board also organised centres for planning and promotion of integrated development of selected rural areas on an experimental basis.

The KVIB also undertook research to improve the spinning wheel. Earlier in 1949, a two-spindle wooden spinning instrument embodying the ring spinning technique had been constructed. This was the forerunner of the four-spindle instrument now known as the Ambar Charkha, which was developed and tested by the KVIB during the

First Plan period. At the same time, however, the Textile Enquiry Committee (1954) had recommended the abolition of hand-spinning. The Committee said: "The basic conclusion of the Committee has been that technically all sectors of the industry have to be improved in order that needlessly strenuous labour may be avoided and reasonable income may be assured. From this angle the Committee's view would obviously be that except in so far as retention of hand-spinning is necessary for temporarily maintaining employment in regard to certain special classes of indigent persons, the mechanical device should gradually supplant the human hands in the spinning industry in order to ensure a higher output per unit of time and a better quality." (p.44). But Government did not accept this view. The Draft Second Plan decided to reserve the bulk of the increased production of consumer goods to village and small scale industries. Accordingly, the KVIB made a draft proposal for meeting the additional requirement of yarn under the Second Plan with hand-spun yarn.

The KVIB's plan was based on the Ambar Charkha. It envisaged the production and distribution of 25 lakh Ambar Charkha sets to spinners trained over a period of three months. By 1960-61, about 400 million lbs. of yarn, needed for the production of 1500 million yards of cloth was to be produced. On the basis of the then estimated cost of manufacturing an Ambar set, namely Rs.130 per set, the programme would involve a capital cost of Rs.32.5 crores.

This was not much less than the capital cost of making an equivalent addition to the spinning capacity of the modern spinning industry. The advantage of the khadi programme, however, was that it would provide between 20 and 25 times as large an employment as the mill spinning industry could provide. As to the wages of the spinners, the KVIB assumed that a spinner would produce half a pound of yarn every day and proposed a wage of Rs.0.75 per working day. At market price of mill yarn the net worth of his labour was less than Rs.0.20, or about one-fourth of the proposed wage. The remaining three-fourths was to be met by means of a subsidy or unemployment benefit.

The Village and Small Scale Industries Committee (1955) to which these draft proposals were referred, considered that the data available to them on the technical and mechanical soundness of Ambar, its productivity, the quality of yarn spun on it and its acceptability to the handloom weavers of mill yarn, were inadequate to enable them to express any definite opinion. They were, however, of the view that "there is enough talent and inventive faculty in the country to construct a spinning unit which will answer to the main tests viz., low cost, technically sound but simple mechanism, easy to operate and repair and capable of producing yarn of proper quality which would be generally acceptable to the weavers." (p.45).

In early 1956, a beginning was made with a pilot project and soon the Ambar Charkha Enquiry Committee

(Chairman: S.S. Khera) was appointed to assess the technical and economic aspects of the programme. The Committee found that the productivity of the worker working on the improved equipment was not what it was assumed by the Commission, namely, half a pound of yarn per day, but only about three-fourth of the same. This meant that a worker working full time could not be given a wage of Rs.0.75 per day as proposed by the KVIB. Nevertheless, the Committee recommended the continuation of the programme on an increasing scale. On the manufacture of the Ambar sets, the Committee emphatically recommended that, except for the precision parts, the sets should be manufactured on an entirely decentralised basis and not in any central factories or even in a number of manufacturing centres. The KVIC did not agree and pointed out that manufacture of the sets on a decentralised basis was not possible at least in the initial stages. The Government accepted the recommendations of the Committee subject to the observations of the KVIC and sanctioned an extended experimental programme to manufacture and distribute 75,000 Ambar sets during 1956-57. At the same time, in June 1956 the Government announced the Textile Policy for the Second Plan period. Of the estimated additional cloth requirement of 1700 million yards, 300 million yards, that is, only one-fifth of the original proposal, were accorded to the Ambar programme.

Next year, in July 1957, the Government further

revised downwards the size and targets of the Ambar programme. This was done at the instance of the KVIC because of the findings of an inquiry which the Commission conducted all over the country in early 1957. The main findings of the inquiry were that an Ambar set worked on an average only 4 hours a day for 200 days per year rather than for 8 hours a day for 300 days per year. As mentioned before, the Ambar Charkha Enquiry Committee had already noted that the productivity of a worker was not half a pound of yarn per 8 hours but about one-fourth less. All these factors brought down the estimates of production per set to only one-fourth of the original expectations. The inquiry conducted by the KVIC also revealed that the technical competence of the instructors and carpenters in the training centres was unsatisfactory; the quality of the spinning sets supplied was poor and the maintenance and repair services were inadequate. As a result, a number of Ambar sets were not in use.

The revised programme envisaged the manufacture and distribution of less than 5 lakh Ambar sets that is less than one-fifth of the original proposal of 25 lakh Ambar sets. Even more striking was the revision in the targets of production of only 60 million yards which was one-fifth of the allocation of 300 million yards made by the Textile Policy of the Government in June 1956 and only one-twentyfifth of the original proposal of the KVIB to supply 1500 million yards by the end of the Second Five Year Plan.

Thus the revision not only brought down the target to only one-twentyfifth of the original proposal but also greatly changed the ratio between the number of spinning sets and the quantity of production. The original proposal required 2,500,000 Ambar sets to produce yarn for 1,500 million yards of cloth. This means that each Ambar set was expected to produce yarn for 600 yards of cloth per year. The revised programme required about 500,000 Ambar sets to produce yarn for 60 million yards of cloth which works out to only 120 million yards per Ambar set.

Actual production fell much below even the revised programme. The Khadi Evaluation Committee (Chairman: Dr. Gyanchand) reporting in 1960 found that at least 40 per cent of the spinning sets were inactive representing "so much loss of invested capital and non-utilisation of productive capacity" and the production per spinning set was less than 60 yards of cloth. This was half the revised estimate and one-tenth of the original expectations. As a result, the capital cost of the programme per unit of output increased tenfold.

The results achieved on the side of employment were naturally equally disappointing. The Khadi Evaluation Committee (1960) reported that during the first three years of the Second Plan, 2,83,633 spinners were trained whereas only 2,45,015 spinning sets were distributed. Further it was estimated that about 40 per cent of the sets distributed to the spinners were inactive and that

the remaining were underutilised. A large part of the expenditure and effort on the training of spinners was thus wasted.

The difficulties did not end with production. There was the problem of selling the yarn to handloom weavers. The handloom weavers generally were used to mill yarn and were unwilling to use the hand-spun yarn. Therefore, they had to be induced and trained to use the hand-spun yarn. In spite of considerable effort in this direction, the stocks of yarn began to accumulate and the programme had to be slowed down. Finally there was the problem of selling the hand-spun and hand-woven cloth. In spite of large subsidies and rebates and in spite of large patronage given by the State, clearance of stocks became a serious problem. Thus, at the end of the Second Plan, there was little enthusiasm left for the programme. The Khadi Evaluation Committee (1969) observed: "The atmosphere of buoyancy and hope with which the programme was introduced in 1956-57, has given place to great deal of scepticism and in some cases, even gloom." (p.p.39-60). Nevertheless, in the view of the Committee, these "rather depressing" conclusions did not "point to the overall conclusion that the ambar programme has to be written off and should have no place in the development effort of the community." (p.60). The meagre results showed "not the failure of ambar, but the inadequacy of approach and effort." It was felt that the possibilities of ambar,

instead of being exhausted, could through full utilisation of its potential and through further technical research and improvement, be "greatly developed", and be "one of the basis of building up a new and prosperous rural economy." (p.60).

The Third Plan recognised that the khadi and village industries programme was up against serious difficulties of an economic nature namely low labour productivity in these industries. It was stated that in the matter of village industries the main objectives to be kept in view would be: "(i) to improve the productivity of the worker and reduce the production costs of placing relatively greater emphasis on positive forms of assistance such as improvement of skill, supply of technical advice, better equipment and credit, etc.; and (ii) to reduce progressively the role of subsidies, sales rebates, and sheltered markets." In pursuance of this policy, the KVIC was already making efforts to improve the Ambar Charkha. In the meanwhile, on the recommendations of the KVIC, a greatly reduced khadi programme was incorporated in the Third Plan. It envisaged the production of 160 million yards of khadi by 1965-66. The traditional charkha was to 'continue to play a definite role', but greater efforts were to be made to popularise the Ambar Charkha. It was proposed to bring 2.5 lakh Ambar Charkhas out of 3.5 lakh charkhas already distributed into effective use, and to introduce another 3 lakh charkhas in the gram ekais. To

improve productivity and earnings, the production from the Ambar Charkha was to be increased from 2 hanks a day to 4 hanks, and their working period in the gram ekais was to be increased. To combat the problem of accumulating stocks, the Third Plan would "aim at gradual reduction of dependence on urban markets and correspondingly greater production for local use." Thus, by the end of the Plan, 40-50 per cent of khadi production was expected to be locally marketed, and prices were to be reduced by 15-20 per cent.

Against the programme of reactivising 2.5 lakh out of 3.5 lakh Ambar Charkhas already distributed, the KVIC took steps to re-model the Charkha and convert it into six-spindle charkhas. Reportedly, 50,363 Ambar Charkhas were re-modelled and another 19,177 were converted into six-spindle ones upto the end of July 1964. Similarly, against the programme of introducing 3 lakh Ambar Charkhas during the Third Plan, only 13,534 Charkhas were distributed in the first two years of the Plan, and there was "no significant increase" in their number in the subsequent years. The Fourth Plan notes: "The Khadi and Village Industries Commission did not introduce more Ambar Charkhas mainly because it was engaged in designing and developing an improved model of the Charkhas." (p.285).

At the end of the Third Plan, that is in June 1966, the Government appointed a Khadi and Village Industries Committee (Chairman: Ashok Mehta) "to assess the progress

of Khadi and Village Industries, to make recommendations to strengthen and expand them, and to suggest any structural or constitutional changes." After a careful review of the basic approach and purpose of the khadi and village industries programmes, the Committee, which reported in February 1968, came to the conclusion that "the basic approach and purpose of khadi as well as village industries needs to be thought out afresh."

(p. 3). It was felt that the approach should be "development-oriented" and in the "perspective of economic growth and general employment situation of the country." The approach was set down in terms of the following three propositions: "First, in respect of each of the traditional industries including khadi, a seven-year programme for progressive improvement of techniques should be worked out with a view to bringing the industries to a viable level. The test of viability to be applied should be that the artisans engaged in the industry is able to earn without any special protection (i.e., any protection over and above that provided under normal village and small industries programmes), a wage which is not less than the prevailing local rate of wages in other occupations for the same level of skill. Second, the large number of artisans already engaged in traditional rural industries should be protected against any substantial displacement during the period of transition to higher techniques so that technological unemployment is not

aggravated. Third, no encouragement by way of training facilities and other assistance should be given to more persons to enter those traditional industries which use relatively inferior techniques, as such encouragement will only increase the number of those exposed to technological unemployment and saddle the Government with the almost impossible task of maintaining at huge cost a large number of workers in technologically backward industries." (p.13).

With regard to the khadi programme, the Committee recommended that additional production of traditional and Ambar khadi should in future be on a self-sufficiency basis, that the subsidy element should be reduced to a minimum, and that there should be free scope for the introduction of technical improvements and power.

In the meanwhile, in 1965, as a result of intensive research over a decade, an all-metal six spindle charkha known as the New Model Charkha was designed and developed. The NMC is based upon the modern techniques of spinning cotton yarn. Carding, drawing and roving operations are done to an extent with electric power. The principle advantages in the adoption of the NMC have been enumerated by the KVIC as: (i) all processes from opening of cotton to spinning of yarn are streamlined; (ii) it does not require long initial training for the operation of the charkha; (iii) it ensures best results in workshed conditions; (iv) it ensures production of yarn of uniform

quality; (v) it is light in operation, and (vi) its wear and tear is much less.*

Under laboratory conditions, the NMC gave an average production of 20 hanks of yarn in 8 hours. The streamlining of spinning activity enabled to bring down the wage rate from about 40 paise per hank on the traditional charkha to 10 paise per hank in NMC yarn. At the same time, NMC yarn was in a position to provide an income of Rs.2 per day of 8 hours work against Re.1 on traditional charkha.

In 1968, the KVIC introduced yet another version of new model charkha with 12 spindles in the field. The comparative economics of hand spinning on the three types of charkha-traditional charkha, Ambar Charkha and the new model charkha with 6 spindles and 12 spindles is shown below: in Table 8.1.

Draft proposals for khadi and village industries under the Fourth Plan submitted by the KVIC to the Planning Commission in August 1965 were revised in the course of the following three years and finally submitted in March 1969. The revision was necessitated because, in the first place, the formulation of the Fourth Plan had been deferred by three years. Secondly, a revision had to be made in the light of the recommendations of the Khadi and Village

* Report of the Rapid Socio-economic Survey of New Model Charkha Spinners, 1972-73, pp.2,3.

Table 8.1: Comparative Cost of Hand-spun Cotton Yarn

	paise per hank			
	Traditional charkha	Ambar charkha	New model charkha	
			6 Spindle	12 Spindles
1. Cotton	22	22	22	22
2. Wages				
(a) Pre-				
spinning processes	5	9	3	3
(b) Spinning	35	16	10	7
Total (2)	40	25	13	10
3. Overheads	3	2	5	5
Total (1)+(2) +(3)	65	49	40	37

Source: Commerce Economic Studies Vol. XIII, Khadi and Village Industries in the India Economy, 1976, p.19.

Industries Committee (1968). Finally, during the three years that intervened, the NMCs were tried and it became possible to collect sufficient data on their working duly verified by an Evaluation Team (Chairman: P.S. Loknathan) of experts from the Planning Commission. Under the Fourth Plan the emphasis and policy was shifted from one of protection to positive forms of assistance such as improved skills, supplying of technical guidance and better equipment and credit. This was a departure from the three earlier Plans.

The khadi programme under the Fourth Plan drew a line between the existing production and expansion in the khadi sector. The production of traditional and Ambar khadi was to be maintained around the existing level of 80 million metres. At the same time a programme for expansion of NMCs with improved pre-processing tools, some of them run by power, was contemplated. It was finalised in January 1971, and included in the plan provision of the KVIC. It envisaged the installation of 1040 sets of 6-spindle and 230 sets of 12-spindle new model charkhas during the Fourth Plan period.

A 'rapid survey' of the socio-economic conditions of the spinners who had taken to spinning on the NMC was undertaken by the KVIC towards the end of 1972, that is about two years after the scheme was initiated. The findings of the survey showed that it provided steady income and employment to spinners all round the year. The income from spinning mainly went towards meeting the basic requirements of food and clothing. The prime beneficiaries of the programme were rural landless families. The programme had opened "new avenues of full time earnings on a par or even better than agricultural off-season earnings."* Moreover, it provided "a very high participation ratio for female members in the working

* Report of the Rapid Socio-economic Survey of New Mode/ Charkha Spinners, p.72-73, 1973, p.14.

population, deriving the income on par with other occupations and overriding the same in substantial proportion of the families."** The survey stated, in conclusion that "the programme has the potential of providing new avenues of employment for rural unemployed and underemployed on a large scale, including moderately educated persons."***

For the Fifth Plan period, the KVIC proposed a scheme for the manufacture of coarse cotton cloth comparable to controlled cloth. We shall refer to it in a later chapter. In addition to the introduction of this scheme, the programme for cotton khadi under the Fifth Plan envisaged replacement of traditional charkha with 2 spindle charkhas and also introduction of 6 spindle and 12 spindle NMCs under controlled conditions. A large number of NMCs were to be engaged in the commercial production of muslin khadi, a new avenue which had the potential of giving an annual income of Rs.600 to spinners and Rs.1600 to weavers. Muslin khadi, which was both durable and fine, was found to have a ready market.

A detailed plan for providing the right to work through khadi and village industries was formulated by two committees appointed by the KVIC in 1977. In the programme for khadi outlined by the two committees, the effort was

** *ibid.*

*** *ibid.*, pp.14,15.

to be "to make khadi programme a part of the national endeavour for clothing the millions."* Moreover, since khadi had the 'inherent advantage' of 'universality of employment', special measures were to be taken for its 'vigorous' expansion. The khadi scheme envisaged the extension of the khadi programme to 25 per cent of total handloom weavers that is 4.5 lakh weavers in 90 districts. Assuming that one weaver provided employment to 4 NMC spinners, an additional 18 lakh persons would be provided work opportunity. To relieve the spinners from 'the burden of pre-spinning processes', the pre-spinning processes would be centralised and ready-made rovers would be supplied to spinners at their doorsteps. Thus, every 100 spinners would be provided with a centre having a set of scutcher and yarning machines, draw frames and roving frames. Similarly, every 100 weavers would be provided with a set of high speed warping and sizing machines and doubling and pirn winding machinery. There was to be 'no inhibition for the use of power' in the manufacture of cloth, provided (a) it did not lead to displacement of labour, that is, spinners, and (b) it did not lead to exploitation of the artisan and Government adopted common pricing policy with a view to protecting the hand spinning sector.

* Report of the Committees for Six Year Plan (1978-79 - 1983-84) and Organisational Structure for Khadi and Village Industries, 1977, p.18.

Phased over a period of ten years, the above scheme envisaged a production of 1125 million metres of cloth produced at the rate of 10 metres per day for 250 days and valued at Rs.700 cores. Man-made fibre could also be mixed in the cotton to solve the problem of raw material. Seeing that the output of cotton khadi in 1977-78 was less than 60 million metres, it was of course an ambitious plan to raise it to 1125 million metres in 10 years. Twenty years ago, similar plans were based on the Ambar Charkha. It is possible that the New Model Charkha may succeed where Ambar Charkha had failed.

CHAPTER IXPERFORMANCE OF THE TEXTILE MILL INDUSTRY: 1951-1980

The performance of the mill industry must naturally be judged within the limits placed on it by the textile policy of the Government. As already explained, the policy in relation to the mill industry, briefly stated, has been to limit the weaving capacity in the mills but to allow their spinning capacity to expand in order to ensure adequate supply of yarn to the decentralised sector. The consequences are evident in the development of the mill industry during 1951-1980 as shown in Table 9.1.

The number of mills increased from 378 to 661 that is by 75 per cent, but the main expansion was in the number of spinning mills which increased 3.6 times whereas the number of composite mills (that is spinning and weaving mills) increased by only 6 per cent.

The number of spindles installed increased from 11.0 million to 21.2 million which is almost double (1.92 times). Naturally, the increase was mostly in the spinning mills where the number of spindles installed increased 4.8 times whereas in the composite mills, it increased only 1.3 times. It will be noticed that the average number of spindles per mill increased by about 30 per cent, 34 per cent in the spinning mills and 27 per cent in the composite mills.

In contrast, the number of looms increased by only 6

Table 9.1: Textile Mill Industry in 1951 and 1980

	1951	1980	1980-1951
Number of mills			
Spinning	103	370	3.59
Composite	275	291	1.06
Total	378	661	1.75
Number of spindles installed (million)			
Spinning mills	1.843	8.889	4.82
Composite mills	9.156	12.261	1.34
Total	10.999	21.150	1.92
Average number of spindles per			
Spinning mills	17,894	24,024	1.34
Composite mills	33,295	42,134	1.27
Number of looms installed	195,000	207,000	1.06
Average number of looms per composite mill	709	711	1.06

Source: Indian Textile Bulletin.

per cent and the average number of looms per composite mill remained stationary at about 710.

We shall first consider the expansion of spinning. As mentioned above, the expansion of spinning capacity has come about mainly by an increase in the number of spinning mills and some expansion in the average number of spindles per mill, which has been about 30 per cent in both spinning and composite mills. In view of this, in the following, while considering the expansion of spinning, we shall not keep the spinning and the composite mills separate; instead, we shall consider the expansion of spinning in the two categories of mills together.

In Table 9.2 (column 2) is given the total number of installed spindles from 1951 to 1980. It will be seen that the number of spindles increased from 10,999,225 in 1951 to 21,150,000 in 1980, which is an increase of 10,150,775 spindles in 29 years or an average of 350,027 spindles per year. The corresponding compound or percentage rate of growth works out to be 2.3 per cent per annum. In what follows, we shall work with percentage rate of growth rather than the absolute rate of growth. It has the advantage that it makes possible a direct comparison of growth rates in different elements such as spindles installed, spindles utilised, output of yarn, output of cloth, etc.

The rate of growth of 2.3 per cent per annum mentioned above is based on the number of spindles installed in the

Table 9.2: Capacity and Utilisation of Spindleage by Mills 1951-1960

Year	Installed spindleage in millions	Spindle utilisation on cotton		Sp. utilised on man-made fib. blends		All spinning	
		% av. over three shifts	No. utilised per day per shift (million)	% av. over three shifts	No. utilised per day per shift (million)	% av. over three shifts	No. utilised per day per shift (million)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	10.999225	64.64	7.1100	N.A.	N.A.	64.64	7.11000
1952	11.252443	64.92	7.30509	N.A.	N.A.	64.92	7.30509
1953	11.422863	64.70	7.39059	N.A.	N.A.	64.70	7.39059
1954	11.651137	65.08	7.58256	N.A.	N.A.	65.08	7.58256
1955	11.957637	65.58	7.84182	N.A.	N.A.	65.58	7.84182
1956	12.051209	71.21	8.58167	N.A.	N.A.	71.21	8.58167
1957	12.491774	70.04	8.74899	N.A.	N.A.	70.04	8.74899
1958	13.054098	65.57	8.56035	N.A.	N.A.	65.58	8.56034
1959	13.406466	67.53	9.05368	0.04*	.248	67.63	9.06658
1960	13.549536	72.35	9.80309	0.93*	.763	73.37	9.94188
1961	13.663364	76.36	10.43387	1.82	.248	78.18	10.68100
1962	13.833484	78.44	10.85088	2.61*	.361	81.03	11.21193
1963	14.117266	79.89	11.27891	3.29*	.465	83.12	11.73368
1964	14.661137	82.80	12.13923	3.88*	.569	86.56	12.70808
1965	15.433486	79.26	12.26370	4.37*	.674	83.39	12.93814

Table 9.2 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1966	16.118329	75.32	12.14133	4.75	.763	80.08	12.90733
1967	16.665684	78.02	13.00326	5.03*	.838	82.81	13.84154
1968	17.094515	75.00	12.72510	5.22*	.892	79.37	13.61743
1969	17.426057	73.16	12.79445	4.46	.778	77.63	13.52699
1970	17.6677214	75.26	13.28295	5.28	.932	80.53	14.22800
1971	17.894170	70.99	12.77701	6.31	1.129	77.30	13.83199
1972	17.979655	74.71	13.42647	5.38	.967	80.08	14.39933
1973	18.140650	74.31	13.48057	5.91	1.073	80.22	14.55266
1974	18.504471	72.86	13.47936	5.14	.952	78.00	14.43266
1975	18.857000	71.47	13.33868	6.08	1.146	77.55	14.62333
1976	19.363000	68.17	13.19969	8.32	1.611	76.49	14.81132
1977	19.761000	55.20	10.90833	15.23	3.010	74.68	14.85300
1978	20.348000	63.92	12.33967	14.83	3.017	80.44	15.84700
1979	20.736000	59.51	12.33900	12.83	2.658	80.26	16.11700
1980	21.150000	63.15	13.38838	11.15	2.359	74.45	15.74700

* 2nd degree polynomial interpolation based on 1961, 1966 and 1970 statistics.

Source: Indian Textile Bulletin.

two end years namely 1951 and 1980. The average rate of growth estimated on the basis of all the data points, that is the number of spindles in all the years from 1951 to 1980, is obtained by fitting by the least square method the log linear function $y = a + b \log t$ where y is the number of installed spindles and t is the year. The average rate of growth expressed as per cent per annum is then given by $(e^b - 1) \times 100$. In the present case it works out to be 2.35 per cent per annum. Judging by the value of $r^2 = 0.9443$, this is a good estimate. Nevertheless, the rate of growth has not been uniform throughout the period; and consequently, in some periods the number of installed spindles was below the trend while in other periods it was above the trend. The installed spindleage was below the trend during 1951-1964, above the trend during 1965-1972; and again below the trend during 1973-1980.

The mills usually work in three shifts. But the installed capacity is never fully utilised in any shift. In spinning, it seems that the maximum utilisation in any shift is about 80 per cent, though it was exceptionally high in 1951, being 90 per cent, in the first shift. In earlier years, the utilisation in the third shift was much below the utilisation in the first and second shifts. However, later, the utilisation is more-or-less the same in all the three shifts. For instance, in 1951, the utilisation of spindles was 90 per cent, 80 per cent, 24

per cent in the first, second and third shift respectively; the same in 1980 was 76 per cent, 77 per cent and 77 per cent respectively.

Columns (3) to (8) of Table 9.2 give utilisation of spindle capacity for spinning cotton, for spinning blended and man-made fibre and for all spinning during 1951-1980. Statistics for utilisation on cotton spinning are separately available for the entire period 1951-1980, but in the case of utilisation on man-made and blended fibre spinning, statistics are not available for 1951-1960. Evidently, during this period utilisation on man-made and blended fibre spinning was insignificant. For 1961-1970, data are available for four years: 1961, 1966, 1969 and 1970. Gaps for 1959, 1960, 1962, 1963, 1964, 1965, 1967 and 1968 are filled by second degree polynomial interpolation based on data for the years 1961, 1966 and 1970, omitting 1969 which seems to be an abnormal year. For the period 1971-1980, statistics for man-made and blended fibre spinning activity separately are available for all the years.

It may be seen that utilisation on cotton spinning increased from 65 per cent in 1951 to around 80 per cent in the early '60's, after which it declined, fluctuating between 60-65 per cent in the late 'seventies. However, this decline was compensated by increased utilisation on spinning man-made and blended fibre from less than 5 per cent in the early 'sixties to between 11-15 per cent in the

late 'seventies. Thus, beginning with the early 'sixties, capacity utilisation on all spinning has remained stable around 80 per cent. The average rate of growth in number of spindles utilised on all spinning (given in column 8, Table 9.2) over the period works out to be 2.67 per cent per annum. As in the case of the number of installed spindles, the growth has not been uniform; and consequently, there are periods in which the number of utilised spindles was below the trend and other periods in which it was above the trend.

In Table 9.3 is given total yarn produced (in kgs.) by mills distinguished into two categories: (i) pure cotton (Col. 2) and (ii) staple fibre spun and blended yarn (Col. 3). To begin with we shall consider the total yarn produced (col. 4). It will be noticed that yarn production has increased from 602 million kgs. in 1951 to about 1300 million kgs. in 1980. The average rate of growth (estimated by the least square method) works out to be 1.43 per cent per annum. It will be remembered that the number of utilised spindles has grown at an average rate of 2.67 per cent per annum. Thus, it seems that the production of yarn has grown somewhat slower than the growth in the number of utilised spindles. Hence it will be useful to relate the production of yarn to the number of spindles utilised and examine whether this has changed over the years. We shall consider the production of cotton, and man-made and blended yarn separately.

Table 9.3: Yarn Production by Mills Working On
Cotton Spinning System (1951-1980)

Year	Cotton yarn thsd. kgs.	Staple Fibre Spun and Blended Yarn thsd.kgs.	Total Yarn production (2) (3) thsd. kgs. (4)
(1)	(2)	(3)	(4)
1951	591,431	11,000	602,431
1952	657,317	9,000	666,317
1953	682,758	9,000	691,758
1954	708,084	13,000	721,084
1955	739,549	13,000	752,549
1956	758,058	20,000	778,058
1957	807,451	19,000	826,451
1958	764,488	17,000	781,488
1959	781,464	18,000	799,464
1960	787,959	20,000	807,959
1961	862,294	22,000	884,294
1962	859,563	27,000	886,563
1963	892,574	29,000	921,574
1964	964,819	34,000	998,819
1965	939,236	41,000	980,236
1966	900,980	46,000	946,980
1967	896,417	51,000	947,417
1968	960,907	59,000	1,019,907
1969	951,066	68,000	1,019,066
1970	964,756	81,000	1,045,756
1971	880,990	98,000	978,990

Table 9.3 (contd.)

(1)	(2)	(3)	(4)
1972	972,299	85,000	1,057,299
1973	998,195	87,000	1,085,195
1974	1,006,986	82,000	1,088,986
1975	989,316	94,000	1,083,316
1976	1,005,925	141,000	1,146,925
1977	846,073	273,000	1,119,073
1978	911,624	323,000	1,234,624
1979	952,192	280,000	1,232,192
1980	1,067,640	228,000	1,295,640

Source: Indian Textile Bulletin.

In the case of cotton yarn, annual output of cotton yarn per spindle shift was obtained by dividing the annual output of cotton yarn in kgs. by three times the number of spindles used per day per shift on cotton spinning. Column (2) of Table 9.4 gives the series thus obtained. It may be seen that annual output per spindle-shift increased from 27.73 kgs. in 1951 to 31.44 kgs. in 1955, but declined thereafter, to 26.58 kgs. in 1980.

The decline in output per spindle shift may be partly due to proportionately greater output of finer counts in recent years. It is known that production of yarn in kgs. per spindle is considerably reduced as the fineness of the yarn increases. Hence, as an approximation, output in kgs. was converted to output in hanks on the basis of the following conversion rates:

1 kg. yarn in count group 1-10s = 10 hanks,

1 kg. yarn in count group 11-20s = 20 hanks,

1 kg. yarn in count group 21-30s = 30 hanks,

1 kg. yarn in count group 41-60s = 60 hanks,

1 kg. yarn in count group 61-80s = 80 hanks,

1 kg. yarn in count groups above 80s = 80 hanks.

It may be seen that the standard rate of conversion of kgs. into hanks for the highest count yarn in a count group is applied for the whole group for the first six groups. For the last group, which is an open group for yarn above 80s count, the conversion rate for 80s count is applied which could partly correct the overrating in lower count groups.

Table 9.4: Yarn Output per Spindle (1951-1980)

Year	Cotton Yarn (kg) per spindle shift	Output of Cotton Yarn in hanks per spindle shift	Weighted output of Cotton Yarn per spindle shift	Index of efficien- cy 1951 of (4) = 100	Output of Staple Fibre Spun and Blen- ded Yarn (kg) per spindle shift
(1)	(2)	(3)	(4)	(5)	(6)
1951	27.7277	839	0.9093	100.0000	
1952	29.9936	848	0.8700	95.6780	
1953	30.7940	870	0.9100	100.0769	
1954	31.1277	896	0.9382	103.1783	
1955	31.4361	908	0.9361	102.9473	
1956	29.4449	789	0.8878	97.6355	
1957	30.7636	824	0.9249	101.7156	
1958	29.7713	819	0.9315	102.4414	
1959	28.7724	806	0.9302	102.2985	
1960	26.7929	790	0.9376	103.1123	
1961	27.5493	788	0.9332	102.6284	
1962	26.4051	779	0.9335	102.6614	
1963	26.3803	772	0.9221	101.4077	
1964	26.4927	774	0.9248	101.7046	
1965	25.5938	768	0.9329	102.5954	
1966	24.7364	760	0.9393	103.2992	
1967	22.9792	706	0.8722	95.9199	
1968	24.9820	761	0.9281	102.0675	
1969	24.8662	758	0.9359	102.9253	29.1349
1970	24.3145	761	0.9606	105.6417	28.9699

Table 9.4 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)
1971	23.1175	747	0.9610	105.6852	28.9344
1972	24.1283	759	0.9520	104.6959	29.2902
1973	24.6835	766	0.9546	104.9819	27.0356
1974	24.8998	780	0.9648	106.1036	28.7217
1975	24.4699	779	0.9520	104.6959	27.3336
1976	25.4028	789	0.9806	107.8412	29.1686
1977	25.8540	786	1.0211	112.295	30.2326
1978	24.6258	776	0.969	106.5655	35.6827
1979	25.7230	798	0.9854	108.3691	35.1185
1980	26.5811	840	1.0469	115.1325	32.2170

Yarn output in each count, expressed in hanks was totalled and divided by the number of spindles used per day per shift. The series is given in column (3) of Table 9.4. It may be seen that yarn in hanks per spindle increased from 839 hanks in 1951 to 908 hanks in 1955, but subsequently declined, to 798 hanks in 1979. In 1980 it was 840 hanks. Thus, the proportionately greater output of yarn of higher counts does not appear to explain the decline in output per spindle shift since 1955.

It is possible that the spindle-time taken to spin yarn of different counts is not quite proportionate to the count. In fact, theoretical rates of production provided by the Cotton Spinning Productivity Team (1949) show that the spindle-time taken to spin yarn of higher counts is more than proportionately higher. Column (2) of Table 9.5 gives the theoretical rates of production provided by the Team, which range from 830 lbs. per 10,000 spindles per hour for 12s count yarn to 60 lbs. per 10,000 spindles per hour for 80s count yarn. The Team does not provide the rate for 10s count. We have assumed it to be 900 lbs. per 10,000 spindles per hour.

In the light of this, in aggregating output of different counts of yarn, we gave them weightage in proportion to the spindle-time needed to spin one lb. of yarn in the count group. The total weighted output thus derived is then divided by the number of spindles used per shift per year. Then, equating the weighted output per

**Table 9.5: Theoretical Rates of Production for
different Count Yarns**

Count	Theoretical rate of production lbs. of yarn per 10,000 spindles per hour
(1)	(2)
10s	900
12s	830
15s	580
20s	440
30s	270
40s	190
50s	130
60s	90
70s	80
80s	60

Source: S.D. Mehta, Indian Cotton Textile Industry,
An Economic Analysis, p.11.

spindle for 1951 to 100, an index of efficiency is obtained for each year. This is given in column 5 of Table 9.4.

Thus compiled, there is evidence of a progressive rise in the efficiency index from 100.00 in 1951 to 115.13 in 1980.

Column 6 of Table 9.4 gives the output of staple fibre spun and blended yarn per spindle shift, which, it may be seen, fluctuated around 28 kgs. during 1969-1976, but increased thereafter, ranging between 30-35 kgs. during 1977-1980.

Table 9.6: Cotton Consumption per Kg. of Yarn
(1951-1980)

Year (1)	Cotton consumption (Kg) per Kg. of Yarn (2)	Cotton used net of waste (Kg) per Kg. of Yarn (3)
1951	1.1055	
1952	1.1012	
1953	1.1160	
1954	1.0989	
1955	1.2227	
1956	1.1193	
1957	1.1079	
1958	1.1039	
1959	1.1086	.8787
1960	1.0997	.8661
1961	1.0965	.8665
1962	1.1125	.8821
1963	1.1111	.8691
1964	1.0990	.8782
1965	1.1064	.8679
1966	1.1066	.8136
1967	1.0999	.8579
1968	1.1006	.8685
1969	1.1072	.8432
1970	1.1258	.8646
1971	1.1350	.8547
1972	1.1634	.9052

Table 9.6 (contd.)

(1)	(2)	(3)
1973	1.1346	.8821
1974	1.1468	.8975
1975	1.1625	.9108
1976	1.2359	.9655
1977	1.3261	1.0732
1978	1.2827	1.0348
1979	1.2578	1.0184
1980	1.2356	.9968

As another index of efficiency of spinning, we may consider cotton consumption per kg. of cotton yarn produced. This is given in column 2 of Table 9.6. It shows that during 1951-1969, cotton consumption per kg. of yarn produced remained more or less steady around 1.10 kg., but thereafter it seems to have increased steadily, reaching 1.25 kg. in 1978-1980. This is true even if we take into account cotton waste. Consumption of cotton in yarn production net of waste can be calculated from 1959 onwards because production figures of cotton waste are available from that year. Column 3 of Table 9.6 shows cotton consumption net of waste per kg. of yarn spun. This stayed more or less steady around 0.87 kg. during 1959-1971; but thereafter it increased steadily reaching 1.0 kg. and above during 1977-1980.

Finally, we may consider employment in the mill-spinning. Beginning with 1956, data on employment in textile mills is available separately for (i) spinning and preparatory operations, (ii) weaving and preparatory operations, and (iii) all other operations which are mainly processing of cloth. In Table 9.7 are given the relevant data namely, (a) average daily employment in spinning and preparatory operations (col. 2), (b) employment per 1000 spindles utilised (col. 3) and (c) employment per 1000 tonnes yarn produced (col. 4). It may be seen that daily average employment in spinning and preparatory operations fluctuated between 300-356 thousand persons per day without

**Table 9.7: Employment in Spinning and Preparatory
(1956-1980)**

Year	Daily Av. Emp. in Spg. and Preparatory thds.	Daily Av. Emp. in Spg. and Preparatory per 1000 spindles utilised per 3 shift	Daily Av. Emp. in Spg. and Preparatory per 1000 tonnes yarn per year
(1)	(2)	(3)	(4)
1956	327	12.702	431.365
1957	331	12.374	409.932
1958	310	12.071	405.500
1959	308	11.324	394.132
1960	311	10.427	394.690
1961	318	9.924	368.784
1962	322	9.576	374.609
1963	325	9.233	364.116
1964	336	8.823	388.521
1965	328	8.495	349.220
1966	309	7.980	342.959
1967	314	7.584	350.283
1968	300	7.370	312.205
1969	289	7.122	303.870
1970	291	6.818	301.631
1971	274	6.603	311.014
1972	290	6.713	311.014
1973	293	6.711	293.530
1974	295	6.813	292.953
1975	300	6.838	303.240

Table 9.7 (contd.)

(1)	(2)	(3)	(4)
1976	294	6.616	292.268
1977	311	6.980	367.581
1978	334	7.026	366.379
1979	325	6.722	341.318
1980	341	7.218	319.396

Source (Column (2)): Indian Textile Bulletin.

any obvious trend. But employment per 1000 spindles declined sharply from 12.7 persons in 1956 to 6.6 persons in 1976. Similarly, employment per 1000 tonnes of yarn produced also declined from 431.4 persons in 1956 to 292.3 persons in 1976. There is some improvement in both respects in the last four years 1977-1980. In fact, figures for 1977-1980 do not appear to be quite in line with the total trend.

The sharp decline in employment per 1000 spindles or per 1000 tonnes of yarn suggests that there is a qualitative difference in the spindleage in 1951 and in 1980. However, no systematic data are available to discuss the nature of technological improvement in spinning and its effect on employment.

As mentioned earlier, the expansion of the mill spinning since 1951 has been allowed mainly to ensure supply of yarn to the decentralised sector. It will be useful therefore to note what proportion of yarn production is consumed by mills for weaving in the mills and what proportion is delivered to the decentralised sector. In Table 9.8 are given the relevant data relating to cotton yarn, namely, (i) spindle point production of yarn, (ii) yarn consumed by the mills for weaving cloth, and (iii) yarn delivered to the decentralised sector. The small balance is either consumed for other manufactures such as hosiery, sewing thread and tyre cord, or exported. In Column 5 of Table 9.8, the cotton yarn delivered to the

**Table 9.8: Production, Consumption and Deliveries
of Cotton Yarn (1951-1980)**

in million kgs.

Year	Spindle Point Yarn Produc- tion	Yarn Con- sumed by mills for weaving cloth	Yarn Deli- vered to the decen- tralised sector	4/2 %
(1)	(2)	(3)	(4)	(5)
1951	591	477	124	20.98
1952	657	489	61	9.13
1953	682	513	172	25.22
1954	708	520	185	26.13
1955	739	523	197	26.66
1956	758	540	200	26.39
1957	807	555	218	27.01
1958	764	514	239	31.28
1959	781	518	252	32.27
1960	788	516	246	31.22
1961	862	556	290	33.64
1962	860	544	295	34.30
1963	893	553	317	35.50
1964	965	591	338	35.03
1965	939	568	337	35.89
1966	901	530	342	37.96
1967	896	514	350	39.06
1968	961	545	389	40.48
1969	951	531	390	41.01
1970	965	524	406	42.07

Table 9.8 (contd.)

(1)	(2)	(3)	(4)	(5)
1971	881	481	369	41.88
1972	972	524	416	42.80
1973	998	540	405	40.58
1974	1,007	537	438	43.50
1975	989	513	438	44.29
1976	1,006	523	449	44.63
1977	846	411	405	47.87
1978	912	432	449	49.23
1979	952	452	485	50.95
1980	1,067	471	564	52.86

Source: Indian Textile Bulletin.

decentralised sector is shown as percentage of the spindle point production of cotton yarn. It will be noticed that the proportion of cotton yarn delivered to the decentralised sector has increased from 20 per cent in 1951 to about 50 per cent in 1980.

Similar data for staple fibre spun and blended yarn are available from 1973 and are given in Table 9.9. It will be noticed that a very large proportion, more than 65 per cent of these yarns is delivered to the decentralised sector. The yarn is delivered primarily to the growing powerloom sector.

Table 9.9: Production and Deliveries of Staple Fibre Spun and Blended Yarn (1973-1980)

Year	Production of Staple Fibre Spun and Blended Yarn million kg.	Delivery of Staple Fibre Spun and Blended Yarn to decentralised sector million kgs.	3/2 %
(1)	(2)	(3)	(4)
1973	87	75	86.21
1974	82	69	84.15
1975	94	68	72.34
1976	141	94	66.67
1977	273	153	56.04
1978	323	194	60.06
1979	280	187	66.79
1980	228	160	70.18

Source: Indian Textile Bulletin.

We shall now turn to the production of cloth in the mills. As mentioned earlier, in accordance with the governmental policy, the loomage in the mills practically did not expand in the 30 years 1951-1980. But old looms were allowed to and were replaced to a certain extent by automatic looms. Break-up of installed loomage into plain and automatic looms is available from 1956 onwards and is given in Table 9.10. The progressive decline in the number of plain looms from 191 thousand in 1956 to 158 thousand in 1980, and the increase in the number of automatic looms from 12 thousand in 1956 to 48 thousand in 1980 may be noted. Thus in 1980, automatic looms accounted for 23 per cent of all looms, compared to just 5 per cent in 1956.

In Table 9.11 is given utilisation of loom capacity for weaving cotton, man-made fibre and blended cloth. Statistics for capacity utilisation on cotton weaving separately are available for the entire period, while those on man-made fibre and blended cloth weaving are available from 1969 onwards. Separate figures are available for weaving of man-made fibre yarn and blended yarn, but we have considered them together as other than 100 per cent cotton weaving. Column 7 of Table 9.11 gives per cent utilisation of capacity on all weaving activity averaged over three shifts. It may be noted that capacity utilisation increased from 61 per cent in 1951 to around 80 per cent by 1980. During 1951-1974, the increase in capacity utilisation from 61 per cent to 76 per cent was

Table 9.10: Installed Loomage with Mills (1951-1980)

Year (1)	Plain (2)	<u>Installed Loomage</u> Automatic (3)	Total (4)
1951	Break-up	N. A.	195,000
1952	"	"	196,000
1953	"	"	198,000
1954	"	"	202,000
1955	"	"	203,000
1956	191,000	12,000	203,000
1957	188,000	13,000	201,000
1958	188,000	13,600	201,000
1959	186,000	15,000	201,000
1960	184,000	16,000	200,000
1961	183,000	16,000	199,000
1962	181,000	18,000	199,000
1963	180,000	20,000	200,000
1964	179,000	24,000	203,000
1965	179,000	27,000	206,000
1966	179,000	30,000	209,000
1967	172,000	35,000	207,000
1968	173,000	34,000	208,000
1969	171,000	37,000	208,000
1970	171,000	37,000	208,000
1971	170,000	38,000	208,000
1972	168,000	38,000	206,000
1973	167,000	38,000	205,000

Table 9.10 (contd.)

(1)	(2)	(3)	(4)
1974	167,000	38,000	205,000
1975	168,000	39,000	207,000
1976	165,000	42,000	207,000
1977	164,000	44,000	207,000
1978	162,000	44,000	207,000
1979	161,000	46,000	208,000
1980	158,000	48,000	207,000

Source: Indian Textile Bulletin.

Table 9.11: Utilisation of Loom Capacity for Weaving Cotton, Blended and Man-Made Fibre Cloth (1951-1980)

Year	Installed Loomage	Cotton Cloth Weaving		Man-made Fibre and Blends		All Cloth Weaving	
		% Utilisa- tion aver- aged over 3 shifts	No. of Looms used per day per shift	% Utilisa- tion aver- aged over 3 shifts	No. of Looms used per day per shift	% Utilisa- tion aver- aged over 3 shifts	No. of Looms used per day per shift
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	195,000	60.65	118,005			60.65	118,005
1952	196,000	62.59	122,666			62.59	122,666
1953	198,000	62.72	124,004			62.72	124,004
1954	202,000	61.72	124,500			61.72	124,500
1955	203,000	62.84	127,386			62.84	127,386
1956	203,000	66.89	135,721			66.89	135,721
1957	201,000	66.62	133,895			66.62	133,895
1958	201,000	63.22	127,249			63.22	127,249
1959	201,000	63.27	127,213			63.27	127,213
1960	200,000	65.70	131,579			65.70	131,579
1961	199,000	68.65	136,466			68.65	136,466
1962	199,000	68.09	135,790			68.09	135,790
1963	200,000	67.39	134,710			67.39	134,710
1964	203,000	70.25	142,430			70.25	142,430
1965	206,000	69.38	143,249			69.38	143,249
1966	209,000	67.31	140,576			67.31	140,576

Table 9.11 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1967	207,000	68.21	141,063			68.21	141,063
1968	208,000	66.99	138,639			66.99	138,639
1969	208,000	66.83	139,000	1.93	4,000	68.87	143,000
1970	208,000	67.79	141,000	2.24	4,667	69.94	145,667
1971	208,000	65.71	137,000	3.52	7,333	69.31	144,333
1972	206,000	69.90	144,000	3.08	6,333	77.01	150,333
1973	205,000	73.66	151,000	3.58	7,333	77.24	158,333
1974	205,000	73.17	150,000	3.25	6,667	76.42	156,667
1975	207,000	69.37	143,000	5.64	11,667	77.72	154,667
1976	207,000	68.44	142,000	7.72	18,000	77.16	160,000
1977	207,000	62.80	129,996	17.55	36,333	80.35	166,329
1978	207,000	60.38	124,994	18.20	37,667	78.58	162,661
1979	208,000	60.57	125,800	16.64	34,567	77.21	160,367
1980	207,000	61.83	128,101	15.62	32,367	77.45	160,468

Source: Indian Textile Bulletin.

chiefly on cotton weaving, utilisation on man-made and blended fibre weaving being less than 5 per cent upto 1974. During 1975-1980, utilisation on cotton weaving declined to around 60 per cent and that on blended and man-made fibre weaving increased to around 15 per cent.

It may be noted, incidentally, that in earlier years utilisation in the third shift was very low; it increased later, though it was never equal to the utilisation in the first two shifts. Thus, for example, in 1951, utilisation was 92 per cent, 79 per cent and 11 per cent respectively in the first, second and third shifts, while in 1980 it was 84 per cent, 82 per cent and 66 per cent respectively.

Column 8 of Table 9.11 gives the number of looms utilised per shift. The average rate of growth over the period works out to be 1.05 per cent per annum. Graph-V gives observed and expected number of looms utilised.

In Table 9.12 is given the production of mill cloth divided into (i) cotton cloth, (ii) blended/mixed/man-made fibre cloth. It will be seen that output of cotton cloth in the mills, after an initial increase from 3727 million metres in 1951 to 4825 million metres in 1956, steadily declined and stabilised at around 4000 million metres where it stayed between 1968 and 1975. Beginning with 1976, there was a further fall in the output of cotton cloth but this was compensated by a steady increase in blended/mixed man-made fabrics. Consequently for the past 15 years from 1966 to 1980, the output of mill cloth of all varieties

Table 9.12: Production of Cloth by Mills (1951-1980)

In million metres						
Year	Cotton cloth	Blended/mixed/ man-made woven fabrics	Total cloth production by mills (2) + (3)	Metres of cloth per kg.	Thsd. metres of cotton cloth per loom utilised on cotton weaving per shift (6)	Thousand metres of blended/mixed/ man-made fibre cloth per loom per shift (7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1951	3727.264	12.975	3740.239	8.5482	10.5278	
1952	4204.995	14.695	4219.690	8.6345	11.4240	
1953	4460.958	8.178	4469.136	8.6621	11.9916	
1954	4569.908	5.725	4575.633	8.6717	12.2356	
1955	4658.388	5.216	4663.604	8.6903	12.1887	
1956	4852.340	6.201	4858.541	8.9191	11.9191	
1957	4862.247	4.222	4866.469	8.6053	12.1040	
1958	4505.217	4.300	4509.517	8.5973	11.8010	
1959	4503.812	3.298	4507.110	8.5303	11.7991	
1960	4616.206	2.759	4618.965	8.7590	11.6939	
1961	4701.442	2.070	4703.512	8.3057	11.4827	
1962	4560.254	2.526	4562.780	8.3060	11.1938	
1963	4422.857	3.151	4426.008	7.9694	10.9445	
1964	4653.509	2.701	4656.210	7.8465	10.8996	
1965	4587.466	3.812	4591.278	7.9774	10.6737	
1966	4283.883	12.646	4285.529	7.9681	10.0515	

Table 9.12 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
1967	4097.536	5.648	4103.184	7.9419	9.6836	
1968	4366.091	3.985	4370.076	7.9817	10.4973	
1969	4168.390	65.290	4233.680	7.9694	9.9952	5.4408
1970	4157.094	88.468	4245.562	7.9942	9.8274	6.2888
1971	3956.788	149.717	4106.505	8.1458	9.6521	6.8056
1972	4244.864	99.986	4344.850	7.9494	9.8264	5.2652
1973	4168.854	130.462	4299.316	7.6919	9.2031	5.9304
1974	4315.606	124.515	4440.121	7.9778	9.5911	6.2254
1975	4032.250	234.738	4266.963	7.7241	9.3986	6.7066
1976	3738.650	424.510	4163.160	7.3365	9.1103	7.8613
1977	3144.240	992.030	4136.270	7.6502	8.0624	9.1029
1978	3316.970	1010.540	4327.510	7.6782	8.8457	8.9428
1979	3231.300	853.870	4085.170	7.1489	8.5620	8.2340
1980	3482.230	732.03	4214.260	7.3933	9.0612	7.5389

Source: Indian Textile Bulletin.

has remained around 4000 million metres; the only change that has occurred is that while in 1966 there was very little output of blended/mixed/man-made fabrics, they accounted for 20 per cent of the total output of cloth in 1980.

Table 9.13 gives category-wise break-up of cotton cloth produced by mills according to average yarn count range. The actual production in each category is expressed as a percentage of total output. The classification of categories applicable prior to March 1976 and the one effective from March 1976 is given in Table 9.14. It may be seen that output of cotton cloth has become finer over the years. Whereas Medium category cloth (consisting of Medium B and Medium A) accounted for 50 per cent of total cloth production in 1951, it accounted for 80 per cent of the total in 1980. Within the Medium category, the trend towards the production of finer Medium (that is, Medium A) is striking. The break-up of the Medium category between Medium B and Medium A was introduced in 1959; in that year, Medium B accounted for 35 per cent of total production and Medium A also accounted for 35 per cent of total production. In 1980, Medium A accounted for 56 per cent of total production whereas Medium B accounted for only 25 per cent.

We may return to Table 9.12 in order to consider metreage of cloth per kg. This is given in Column 5. It may be seen that cloth in metres per kg. increased from

**Table 9.13: Category-wise Production of Cotton Cloth
(1951-1980)**

(Percentage of total production)

Year (1)	Cotton Cloth				Superfine (6)
	Coarse (2)	Medium B (3)	Medium A (4)	Fine (5)	
1951	8.90		51.06	33.05	6.98
1952	10.94		58.43	25.97	2.78
1953	12.28		64.29	17.19	6.23
1954	10.20		73.85	9.26	6.70
1955	11.23		73.80	9.06	5.90
1956	13.54		71.55	8.39	6.53
1957	21.90		68.88	7.20	5.02
1958	19.69		68.92	6.15	5.24
1959	18.12	35.35	35.70	4.91	5.91
1960	13.96	34.44	41.10	4.54	5.97
1961	16.81	32.49	42.25	3.81	4.64
1962	16.68	30.78	42.68	4.31	5.54
1963	18.31	29.87	40.88	4.62	6.33
1964	18.66	31.70	38.85	4.19	6.59
1965	17.50	30.61	40.12	4.79	7.00
1966	16.80	26.39	43.46	4.88	7.42
1967	16.66	27.92	43.15	4.15	8.11
1968	16.24	29.19	41.73	4.76	8.08
1969	14.59	29.13	44.27	4.24	7.77
1970	13.93	26.66	44.88	4.62	9.26
1971	12.70	26.23	44.31	6.25	10.51
1972	13.90	28.08	45.16	4.83	8.03

Table 9.13 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)
1973	14.50	30.67	37.39	8.83	8.60
1974	12.84	29.48	45.34	6.41	5.92
1975	13.84	27.90	45.37	6.24	6.66
1976	13.80	29.26	47.29	3.38	6.27
1977	13.10	27.84	50.85	2.97	5.24
1978	13.59	28.32	51.72	2.50	3.87
1979	12.56	28.77	53.01	1.92	3.74
1980	11.87	25.21	55.96	1.85	3.68

Source: Indian Textile Bulletin.

Table 9.14: Changes in Classification of Categories of Cloth According to Average Yarn Count Range

	Coarse	Medium	Of which Medium B	Of which Medium A	Fine	Superfine
Prior to 16-3-1976	Below 17s	From 17s to below 35s	From 17s to below 26s	From 26s to below 35s	From 35s to below 48s	48s and above
With effect from 16-3-1976	Below 17s	From 17s to below 41s	From 17s to below 26s	From 26s to below 41s	From 41s to below 61s	61s and above

Source: Indian Textile Bulletin.

8.55 in 1951 to 8.92 in 1956. But it progressively declined thereafter to 7.39 by 1980. The fact that, as noted above, output of cotton cloth has become finer over the years does not seem to agree with the decline, for finer cloth should give greater metreage per kg. Possibly the decline is related to the composition of output of cotton, blended, mixed and man-made fibre cloth. However, we are not technically competent to comment on the same.

Columns (6) and (7) of Table 9.12 give annual average output of cloth per utilised loom-shift, cotton cloth in column (6) and other cloth in column (7). Surprisingly, output of cotton cloth per loom-shift has declined in spite of the fact that the proportion of automatic looms has increased over the years. But again, we are not competent to comment. Output of blended/mixed/man-made fibre cloth per shift has, it may be seen, increased from 5.4 thousand metres per loom-shift in 1969 to 9.1 thousand metres per loom-shift in 1977.

We may now consider employment in weaving and preparatory operations, for which data are available from 1956. These are given in column (2) of Table 9.15. Columns (3) and (4) of the Table give daily average employment in weaving and preparatory work per 1000 looms utilised per shift, and daily average employment in weaving and preparatory work per million metres of cloth produced per annum. It can be seen that daily average employment in weaving and preparatory fluctuated between

Table 9.15: Employment in Weaving (1956-1980)

Year (1)	Daily Average employment in weaving and preparatory thousands (2)	Average daily employment per 1000 utilised looms per shift (3)	Daily employment in weaving and preparatory per million metres of cloth per year (4)
1956	294	722.070	60.512
1957	293	729.428	60.208
1958	275	720.372	60.982
1959	271	710.095	60.127
1960	273	691.560	59.104
1961	281	686.374	59.743
1962	276	677.517	60.489
1963	273	675.525	61.681
1964	283	662.314	60.779
1965	277	644.565	60.332
1966	266	630.738	62.069
1967	262	619.109	63.853
1968	251	603.486	57.436
1969	246	573.427	58.105
1970	248	567.504	58.414
1971	238	549.655	57.957
1972	251	556.542	57.770
1973	261	549.475	60.707
1974	258	548.935	58.107
1975	254	547.413	59.527
1976	246	512.500	59.090

Table 9.15 (contd.)

(1)	(2)	(3)	(4)
1977	260	521.056	62.859
1978	269	551.249	62.161
1979	266	552.899	65.114
1980	271	562.937	64.306

Source: Indian Textile Bulletin.

240-290 thousand persons per day. Further, over the period, the employment per 1000 looms utilised has declined from 720 to 550 persons per shift presumably on account of the replacement of plain looms by automatic looms that occurred during the period. However, as already noted, because for inexplicable reasons, output per loom per annum has also declined over the period, the employment per million metres of cloth has remained stable around 60 persons per day. Thus, though technical improvement has caused a certain decline in employment in the spinning section, the same did not apparently cause any decline in the weaving section of the mill industry.

Though output of mill cloth has remained more-or-less stagnant there has been considerable increase in the processing and finishing of cloth done in the mills. The relevant data are given in Table 9.16. In column 2 of the Table is given total output of mill cloth. In columns 3, 4, and 5 are given quantities of cloth bleached, dyed and printed respectively. In columns 6, 7 and 8 are given quantities of cloth mercerised, sanforized and otherwise chemically treated respectively. It will be noted that the last set of data is available from only 1965 onwards.

Bleaching is essential for all further processing. Hence, proportion of bleached cloth to total output of cloth gives an approximation of the increased processing done in the mills. Similarly, proportion of bleached cloth dyed, printed and finished (mercerised, sanforized

Table 9.16: Processing of Mill Made Cloth (1951-1980)

In million metres

Year	Total cloth output by mills	Bleached	Dyed	Printed	Mercerised	Sanferized	Otherwise chemically processed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	3,740	1,318	475	305	-	-	-
1952	4,220	1,090	576	350			
1953	4,469	1,208	752	372			
1954	4,576	1,104	736	450			
1955	4,664	1,357	639	408			
1956	4,859	1,557	630	450			
1957	4,867	1,623	634	492	Figures not available		
1958	4,510	1,649	749	548			
1959	4,507	1,723	719	615			
1960	4,619	1,784	750	590			
1961	4,704	1,864	840	642			
1962	4,563	1,905	848	648			
1963	4,426	1,849	874	669			
1964	4,656	1,918	949	703	-	-	-
1965	4,591	1,736	890	777	713	323	49
1966	4,286	1,714	910	852	799	388	55
1967	4,103	1,647	923	789	731	399	73

Table 9.16 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1968	4,370	1,751	1,035	925	739	402	93
1969	4,234	1,832	1,163	937	734	393	92
1970	4,246	1,799	1,228	1,088	811	430	100
1971	4,107	1,758	1,236	962	806	416	91
1972	4,345	1,878	1,332	1,105	730	354	89
1973	4,299	1,773	1,248	983	829	434	105
1974	4,440	1,839	1,232	1,005	696	344	75
1975	4,267	1,807	1,264	1,134	744	314	76
1976	4,163	1,702	1,193	995	883	390	89
1977	4,136	2,202	1,397	1,077	1,097	587	164
1978	4,328	2,337	1,545	1,162	1,271	652	212
1979	4,085	2,315	1,390	1,079	1,187	675	218
1980							

Source: Indian Textile Bulletin.

or otherwise chemically treated) indicate the increased further processing done on the bleached cloth. These proportions are given in Table 9.17. For the purpose of this Table, we have added together the quantities of cloth mercerised, sanforized and otherwise chemically treated. It will be noticed that the proportion of bleaching increased from about 35 per cent in 1951 to about 40 per cent in 1965 to about 57 per cent in 1979. Similarly the proportion of the bleached cloth dyed increased from 36 per cent in 1951 to 51 per cent in 1965 to 60 per cent in 1979. The proportion of bleached cloth printed increased from 23 per cent in 1951 to 45 per cent in 1965 to over 60 per cent in 1975, after which it declined, to 47 per cent in 1979. Finally, the proportion of bleached cloth mercerised, sanforized or otherwise chemically treated increased from 63 per cent in 1965 to 90 per cent in 1979.

We have earlier noted that the employment in weaving per unit of output has remained more or less constant—fortunately it has not declined on account of technological improvements. On the other hand, because of the considerable increase in the processing and finishing of cloth done in the mills, there has been a corresponding increase in the employment in processing and finishing. The relevant data are given in Table 9.18. In column 2 of the Table is shown employment in weaving. In column 3 is given the employment in processing and finishing. In column 4 is shown the employment in processing expressed as percentage of the

Table 9.17: Processing of Mill Made Cloth
(Percentage) (1956-1979)

Year	Bleached as a percentage of total cloth output	Dyed as a percentage of bleached	Printed as a percentage of bleached	Finished as a percentage of bleached
(1)	(2)	(3)	(4)	(5)
1951	35.24	35.96	23.14	
1952	25.83	52.84	32.11	
1953	27.03	62.25	30.79	
1954	24.13	66.67	40.76	
1955	29.10	47.09	30.07	
1956	32.04	40.46	28.90	
1957	33.35	39.06	30.31	
1958	36.56	45.42	33.23	
1959	38.23	41.73	35.69	
1960	38.62	42.04	33.07	
1961	39.63	45.06	34.44	
1962	41.75	44.51	34.02	
1963	41.78	47.27	36.18	
1964	41.19	49.48	36.65	
1965	37.81	51.27	44.76	62.50
1966	39.99	53.09	49.71	72.46
1967	40.14	56.04	47.91	73.04
1968	40.07	59.11	52.83	70.47
1969	43.27	63.48	51.15	66.54
1970	42.37	68.26	60.48	74.54
1971	42.81	70.31	54.72	74.69

Table 9.17 (contd.)

(1)	(2)	(3)	(4)	(5)
1972	43.22	70.93	58.84	62.46
1973	41.24	70.39	55.44	77.16
1974	41.14	66.99	54.65	60.13
1975	42.35	69.95	62.76	62.76
1976	40.88	70.09	58.46	80.02
1977	53.24	63.44	48.91	89.92
1978	53.99	66.11	49.72	91.36
1979	56.67	60.04	46.61	89.85

Table 9.18: Employment in Processing, Finishing and Other Departments (1956-1980)

In thousands				
Year	Daily Average employment in weaving and preparatory	Daily Average employment in finishing, processing and other departments	3/2 %	Daily Average employment in finishing and processing per million metres of cloth bleached per annum
(1)	(2)	(3)	(4)	(5)
1956	294	186	63.27	119.46
1957	293	189	64.51	116.45
1958	275	182	66.18	110.37
1959	271	184	67.90	106.79
1960	273	188	68.86	105.38
1961	281	194	69.04	104.08
1962	276	200	72.46	104.99
1963	273	206	75.46	111.41
1964	283	213	75.27	111.05
1965	277	217	78.34	125.00
1966	266	213	80.08	124.27
1967	262	213	81.30	129.33
1968	251	209	83.27	119.36
1969	246	205	83.33	111.90
1970	248	210	84.68	111.73
1971	238	207	86.97	117.75
1972	251	221	88.05	117.68
1973	261	230	88.12	129.72
1974	258	234	90.70	127.24

Table 9.18 (contd.)

(1)	(2)	(3)	(4)	(5)
1975	254	226	88.98	125.07
1976	246	220	89.43	129.26
1977	260	254	97.69	115.35
1978	269	263	97.77	112.54
1979	266	270	101.50	116.631
1980	271	277	102.21	N.A.

Source: Indian Textile Bulletin.

employment in weaving. It will be seen that this ratio has increased from 63.27 per cent in 1956 to over 100 per cent in 1980 so that, at present, processing and finishing of cloth in the mills provides as much, if not a little more employment as in weaving in the mills.

The increased employment in processing and finishing of cloth was of course due to the increased processing and finishing done in the mills as shown in Table 9.17. As a first approximation, we may relate the employment in processing to the quantum of cloth bleached. This is done in column 5 of Table 9.18 where we show the average daily employment in processing and finishing per million metres of cloth bleached (and partly further processed) per annum. It will be noticed that taking the whole period from 1956 to 1979, the average daily employment in processing works out to be about 120 persons per million metres of cloth bleached (and partly further processed). This is almost twice as much as the employment in weaving and preparatory operations which, as we have seen, was about 60 persons per million metres of cloth produced per annum. Obviously, processing and finishing of cloth have a large employment content and potential.

As noted above, over the years, not only the proportion of bleached cloth increased but further processing of bleached cloth such as dying, printing, mercerising, sanforizing, or otherwise treating chemically, has also increased. In consequence, we should have expected that the employment in processing per million metres of bleached

cloth (partly further processed in one or more of the several ways) should have increased. Surprisingly, this has not happened. It will be seen that the employment in processing per million metres of bleached cloth has remained more or less constant around 120 persons. It seems that the increased processing done in the mills is being done with increased mechanical processes preventing greater employment in processing.

We may now bring together the employment in the mill industry in a manner which will show the employment potential of mill-spinning, mill-weaving, and mill processing per million metres of cloth produced. For this purpose, we should recognise that all yarn in the mills is not woven in the mills. Hence, in order to assess the employment potential of mill-spinning per million metres of cloth produced, we should estimate, pro-rata, the employment in spinning yarn actually consumed in the mills. This is done in Table 9.19. In 1979, it will be seen that daily average employment in spinning per million metres of cloth produced per annum was around 35 persons. In Table 9.20 we bring together figures relating to employment in (i) spinning and preparatory operations, (ii) weaving and preparatory operations, and (iii) processing and finishing, per million metres of cloth produced. In column (5) of the Table we give total employment in spinning, weaving and finishing per million metres of cloth produced in

Table 9.19: Employment in Spinning Yarn Consumed by Mills per Million Metres Cloth (1956-1979)

Year (1)	Daily Av. Emp. in Sp. and Prep. per thsd tonnes yarn per year (2)	Yarn Consumed by Mills million kg.			Employment-in Production of yarn consumed by mills ** thsd (6)	Employment in Spg. of yarn consumed by mills per million metres of cloth (7)
		Cotton (3)	Non-cotton (4)	Total (3)+(4) (5)		
1956	431.365	540	2.0*	542.0	227.8	46.882
1957	409.932	555	1.9*	556.9	222.9	45.798
1958	405.500	514	1.7*	515.7	204.4	45.322
1959	394.132	518	1.8*	519.8	200.1	44.398
1960	394.690	516	2.0*	518.0	199.4	43.170
1961	368.784	556	2.2*	558.2	200.8	42.687
1962	374.609	544	2.7*	546.7	198.5	43.502
1963	364.116	553	2.9*	555.9	195.9	44.261
1964	388.521	591	3.4*	594.4	199.9	42.934
1965	349.220	568	4.1*	572.1	288.8	49.837
1966	342.959	530	4.6*	534.6	174.4	40.691
1967	350.283	514	5.1*	519.1	167.3	40.775
1968	312.205	545	5.9*	550.9	162.0	37.071
1969	303.870	531	6.8*	537.8	152.5	36.018
1970	301.631	524	8.1*	532.1	148.1	34.880
1971	311.014	481	9.8 ⁿ	490.8	137.4	33.455

Table 9.19 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
1972	311.014	524	8.5*	532.5	146.1	33.625
1973	293.530	540	12.5	562.5	151.9	35.330
1974	292.953	537	12.6	549.6	148.9	33.536
1975	303.240	513	25.8	538.8	149.3	34.989
1976	292.268	523	47.4	570.4	146.2	35.119
1977	367.581	411	120.3	531.3	147.7	35.711
1978	366.379	432	128.9	560.9	151.7	35.795
1979	341.318	452	92.3	544.3	143.6	33.153

* Assumed to be 10 per cent of production of the same by mills.

** Calculated on the basis of the employment/output ratio for each year.

Table 9.20: Employment Potential in Spinning, Weaving, Finishing per million Metres of Cloth produced (1956-1979)

Year	Emp. in Spg. & Prep. per million metres of cloth *	Emp. in Wg. and Prep. per million metres of cloth **	Emp. in Fin. and Proc. per million metres of cloth ***	Emp. in Spg., Wg. and Finishing per million metres of cloth (2)+(3)+(4) (5)
(1)	(2)	(3)	(4)	(5)
1956	46.882	60.512	38.280	145.674
1957	45.798	60.208	38.833	144.839
1958	45.322	60.982	40.355	146.659
1959	44.398	60.127	40.825	145.350
1960	43.170	59.104	40.701	142.975
1961	42.687	59.743	41.242	143.672
1962	43.502	60.489	43.831	147.822
1963	44.261	61.681	46.543	152.485
1964	42.934	60.779	45.747	149.460
1965	49.837	60.332	47.266	157.435
1966	40.691	62.069	49.697	152.457
1967	40.775	63.853	51.913	156.541
1968	37.071	57.436	47.826	142.333
1969	36.018	58.105	48.418	142.541
1970	34.880	58.414	49.458	142.752
1971	33.455	57.957	50.402	141.814
1972	33.625	57.770	50.863	142.258
1973	35.330	60.707	53.501	149.538
1974	33.536	58.107	52.703	144.346
1975	34.989	59.527	52.965	147.481

Table 9.20 (contd.)

(1)	(2)	(3)	(4)	(5)
1976	35.119	59.090	52.847	147.056
1977	35.711	62.859	61.412	159.982
1978	35.795	62.161	62.058	160.014
1979	35.153	65.114	66.095	166.323

* Source: Col.(7) Table 9.18.

** Source: Col.(4) Table 9.15.

*** Source: ^{obtained} Period by dividing column (3) Table 9.18
by Col.(2) Table 9.16.

figure appears exceptionally large, in 1978 it will be seen that daily average employment in mills per million metres of cloth produced per annum was around 160 persons. This consisted of 36 persons in spinning and preparatory, 62 persons in weaving and preparatory and 62 persons in finishing and processing. We shall refer to these results when we examine the employment potential in handloom, powerloom and khadi.

Finally, we shall examine the financial position of the textile industry. We may do this by comparing the profits in the textile industry with those in all industries together. For this purpose we shall use the ratio of Gross Profits to Net Assets, which is an indicator of the gross return to total capital employed in the business. Gross profits are profits before tax gross of interest but net of depreciation. In Table 9.21 we give this ratio for the textile industry and for all industries for the years 1960-61 to 1977-78. The ratios are derived from 4 series of studies on the finances of selected medium and large non-financial, non-government, public limited companies undertaken by the Reserve Bank of India. The four series refer to the periods 1960-61 to 1965-66, 1965-66 to 1970-71, 1970-71 to 1974-75 and 1975-76 to 1977-78 respectively. The studies are based on a sample of such companies. In columns 3 and 4 we have indicated the size of the sample for all industries and for cotton textile companies for each of the series. It should be

Table 9.21: Profitability Ratios (1960-61 to 1977-78)

Series	Period	No. of Companies included		Gross Profits As a percentage of Net Assets	
		All Industries	Cotton Textiles	All Companies	Cotton textile companies
(1)	(2)	(3)	(4)	(5)	(6)
I	1960-61	1333	256	10.0	11.7
	1961-62	1333	256	10.0	12.8
	1962-63	1333	256	10.1	7.8
	1963-64	1333	256	10.7	8.8
	1964-65	1333	256	10.5	8.7
	1965-66	1333	256	10.1	5.8
II	1965-66	1501	261	10.1	5.4
	1966-67	1501	261	9.8	7.8
	1967-68	1501	261	8.6	6.3
	1968-69	1501	261	8.5	5.3
	1969-70	1501	261	9.6	7.9
	1970-71	1501	261	10.4	7.9
III	1970-71	1650	249	10.6	8.5
	1971-72	1650	249	10.7	7.2
	1972-73	1650	249	10.5	9.8
	1973-74	1650	249	11.2	15.1
	1974-75	1650	249	12.8	10.7
IV	1975-76	1720	241	10.6	4.9
	1976-77	1720	241	11.0	5.0
	1977-78	1720	241	11.0	8.8

Source: Financial Statistics of Joint Stock Companies in India.

N.B.: Gross Profits are net of depreciation but gross of interest.

noted that the cotton textile companies are companies whose principal business is cotton textiles but that the accounts relate to the entire business of the company; it may relate to one or more cotton textile mills and may even cover business other than cotton textile mills. All that can be said is that the principal business of these companies was cotton textiles.

It may be seen that in all the years except 1960-61, 1961-62 and 1973-74, the profitability ratio for cotton textile companies is lower than that for all industries by one or two percentage points.

The average profits of course do not tell the whole story because not all companies make profits every year. Hence, it will be of interest to compare the proportion of non-profit-making companies among the textile companies as also among all companies. The information is available for three of the four series of studies referred to above, that is with reference to the period 1965-66 to 1970-71, 1970-71 to 1974-75 and 1975-76 to 1977-78. This is given in Table 9.22. It may be seen that during the period 1965-1977, whereas the proportion of non-profit-making companies in all industries ranged between 20 and 30 per cent, the same for cotton textile companies ranged between 30 and 40 per cent during 1965-1975 and was as high as 60 per cent in 1975-1977. Thus, not only has the profitability ratio of cotton textile companies been lower as compared

Table 9.22: Non-Profit-Making Companies
(1965-66 to 1977-78)

Series	Period	Total of all Industries		Cotton Textiles	
		Total No. of Companies	No. of non-profit-making Companies	Total No. of Companies	No. of non-profit making Companies
(1)	(2)	(3)	(4)	(5)	(6)
IV	65-66	1501	(20.85) 313	261	(41.76) 109
	66-67	1501	(20.52) 308	261	(31.80) 83
	67-68	1501	(27.85) 418	261	(39.46) 103
	68-69	1501	(30.85) 463	261	(49.81) 130
	69-70	1501	(25.45) 382	261	(29.50) 77
	70-71	1501	(24.32) 365	261	(32.57) 85
V	70-71	1650	(22.85) 377	249	(27.31) 68
	71-72	1650	(22.24) 367	249	(36.14) 90
	72-73	1650	(22.85) 377	249	(16.06) 40
	73-74	1650	(21.15) 349	249	(3.6) 9
	74-75	1650	(19.82) 327	249	(16.47) 41
VI	75-76	1720	(33.66) 579	241	(62.65) 151
	76-77	1720	(32.44) 558	241	(57.26) 138
	77-78	1720	(28.66) 493	241	(31.12) 75

Figures in brackets give percentage total.

Source: Financial Statistics of Joint Stock Companies In India.

companies to the total has also been much higher in cotton textiles.

Some analysis of the profitability in the textile mills is available in two reports: (i) Report of the Cotton Textile Committee, 1968 (Chairman: S.V. Kogekar) appointed by the Government of Maharashtra, and (ii) First and Second Reports of the Textile Reorganisation Committee 1968-1969 (Chairman: Manubhai Shah) appointed by the Government of Gujarat. In order to ascertain the financial position of the mills in Maharashtra, the Maharashtra Committee undertook an analysis of the balance sheets and profit and loss accounts of 60 mills companies representing 74 out of the 95 mills then in the State. The Committee classified these mills into five groups on the basis of their average gross profits expressed as a percentage of their sales for the three years 1964-65, 1965-66, and 1966-67. The results are as under:

Table 9.23: Classification of Mills on the basis of Gross Profits/Sales Ratio

Group	No. of mills	Average percentage of gross profits to sales
I	11	15 per cent and above
II	20	10 to 15 per cent
III	24	5 to 10 per cent
IV	9	0 per cent to 5 per cent
V	10	Mills making losses
Total	74	

It will be noticed that 10 out of the 74 mills made losses and 9 others made profits of less than 5 per cent.

For one year, namely 1966-67, the Committee presents expenses and returns in these groups of mills expressed per unit of "one loom, equivalent spindles, and processing machinery." The results are shown in Table 9.24.

Elements of costs as percentages of Sales (Rs.) per unit of "one loom, equivalent spindles and processing machinery" are given in Table 9.25.

It will be noticed that the gross value of output per unit of one loom etc. declines progressively from Group I to Group V. In Group I it is Rs.52,052; in Group V, it is only Rs.24,095. The structure of cost of production is also quite different in different groups. Costs of raw materials, wages and salaries and fuel power as percentage of gross value of output grow progressively higher from Group I to Group V. Raw material and fuel and power costs increase from 36.9 per cent in Group I to 54.6 per cent in Group V. Costs of wages and salaries increase from 23.9 per cent in Group I to 36.3 per cent in Group V. The costs of these three items together constitute 60.8 per cent of gross value of output in Group I mills but as much as 90.9 per cent in Group V mills. Gross profits ranged from Rs.8559 per unit in Group I to (-) Rs.1215 (loss) per unit in Group V.

The Gujarat Committee analysed the data in a different manner. The Committee noted that in 1966, out of 57 mills

Table 9.24: Statement showing the financial position and expenses per unit of one loom, equivalent spindles and processing machinery installed for the year 1966-67

(In Rs.)					
Groups	I	II	III	IV	V
1. Raw materials	17,282	19,734	15,057	14,184	11,935
2. Wages, salaries etc.	12,438	13,027	10,459	9,892	8,748
3. Stores and spare parts	6,160	5,374	3,366	3,148	2,227
4. Fuel and power	1,893	2,083	1,515	1,535	1,223
5. Repairs and renewals	575	389	417	255	417
6. Other expenses	5,145	4,298	2,524	1,572	762
7. Total factory cost (1 to 6)	43,493	44,906	33,338	30,586	25,310
8. Gross profit	8,559	5,524	2,333	(-)15	(-)1,215
9. Grand Total (7) (8)	52,052	50,430	35,671	30,571	24,095

Source: Report of the Cotton Textile Committee 1968, Statement No. 14, p.87.

Table 9.25: The different elements of cost
percentage-wise (1966-67)

Groups	I	II	III	IV	V
1. Raw materials	33.38	39.2	42.2	46.4	49.5
2. Wages, salaries etc.	23.9	25.8	29.3	32.4	36.3
3. Stores and spare parts	11.8	10.7	9.4	10.3	9.2
4. Fuel and power	3.6	4.1	4.2	5.0	5.1
5. Repairs and renewals	1.1	0.8	1.2	0.8	1.7
6. Other expenses	9.9	8.5	7.1	5.1	3.2
7. Total factory cost (1 to 6)	83.6	89.1	93.4	100.0	105.0
8. Gross profit	16.4	10.9	6.6	Negligible	(-)5.0
9. Grand Total (7 + 8) = 100	52,052	50,430	35,671	30,571	24,095

Source: Report of the Cotton Textile Committee 1968,
Statement 14, 15, pp. 87, 88.

in Ahmedabad, 31 mills had made profits of Rs.5.81 crores whereas remaining 26 mills had incurred loss of Rs.2.27 crores. The Committee presents two classifications of the Mills: (i) by the number of looms installed and (ii) by the increase in gross block per loom per year during the sixteen years 1951-66. For both these classifications are given for each class of mills (a) net profit as per cent of net sales and (b) net profit per loom per annum. The results are given in Tables 9.26 and 9.27 given below:

Table 9.26: Classification by Number of Looms Installed

No. of looms installed	No. of units	Net profit as % of net sales	Profit/loom per year
Upto 500	8	- 0.63	- 223
501 to 900	29	+ 1.34	+ 465
901 to 1200	11	+ 2.37	+ 887
Above 1200	7	+ 9.06	+4510

Source: First and Second Reports of the Textile Reorganisation Committee, 1969, p.22.

It is obvious that the profitability is higher in larger units. But, as the Committee has warned, "it will be unwise to jump to the conclusion that all the smaller units are uneconomic." Probably, the causation is the other way round: the more profitable units grow bigger. The second classification is more relevant. The mills with greater investment in gross block per loom are showing greater profitability.

Table 9.27: Classification by the increase in gross block

Increase in gross block per loom per year	No. of units	Net profit as % of net sales	Net profit per loom per year Rs.
Upto Rs. 500	4	- 3	- 746
From Rs. 501 to 750	8	- 2	- 495
From Rs. 751 to 1000	12	+ 1	+ 172
From Rs. 1001 to 1250	10	+ 3	+ 1151
Above Rs. 1250	18	+ 7	+ 3402

Source: First and Second Reports of the Textile Reorganisation Committee, 1969, p.23.

Because of continuing losses, a number of mills had remained closed from time to time. For instance, the Maharashtra Committee notes that at the end of January 1968, as many as 37 mills in the country were closed. But this was by no means a new phenomenon. The Textile Enquiry Committee, 1958 (Chairman: D.S. Joshi) gives data regarding the closed mills from 1951-1958 as shown in Table 9.28 (columns 5, 6, 7). Relating the statistics of number of mills, spindles and looms of closed mills with the same for all mills (columns 2, 3, 4), it may be seen that during the period around 5 per cent of total mills, between 3 and 4 per cent of total spindles and between 2 and 4 per cent of total looms were idle due to closure of mills.

The Textile Enquiry Committee (1958) was appointed to enquire into the prevailing condition of the cotton textile

Table 9.28: No. of Mills and Installed Capacity of Closed Mills and all Mills, 1951-1958

Year beginning	Total Installed Capacity			Installed Capacity of Closed Mills			5/2 %	6/3%
	No. of Mills	No. of Spindles (lakhs)	No. of Looms	No. of Mills	No. of Spindles (lakhs)	No. of Looms		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1951	378	109.99	195,000	25	N.A.	N.A.	6.61	-
1952	383	112.52	196,000	16	N.A.	N.A.	4.18	-
1953	395	114.23	198,000	13	N.A.	N.A.	2.20	-
1954	400	116.51	202,000	20	N.A.	N.A.	5.00	-
1955	408	119.58	203,000	25	4.58	8,321	6.13	3.83
1956	412	120.51	203,000	23	4.72	7,794	5.58	3.92
1957	436	124.92	201,000	19	3.30	3,759	2.29	2.64
January 1958	470	130.54	201,000	25	4.07	5,834	5.32	3.12
May 1958				28	5.56	9,198	5.96	4.26

Source: Columns 5, 6, 7: Textile Enquiry Committee, 1958.

Columns 2, 3, 4: Indian Textile Bulletin.

industry. The Government Resolution setting up the Committee said: "The Cotton Textile Industry has been for some time past, experiencing difficulties by way of accumulation of yarn and cloth and also by a fall in exports generally. Apart from the relief recently given by reductions and rationalisation of excise duty, Government consider it necessary that an examination of the structure of industry, with special reference to production, management, finance, modernisation and allied problems, should now be undertaken." In its analysis of the nature of the difficulties, the Committee noted: "In the evidence collected by the Committee several factors were adduced as having contributed to the malady faced by some of the sections of the industry. Some of these causes are stated to be deep-rooted requiring long term and permanent remedial measures^s, while other causes are such that they can be remedied by executive actions such as by relaxing certain provisions of the Cotton Textiles (Control) Order, giving greater facilities for improving the final appearance of cloth by adjusting the fiscal levies. The causes which are deep-rooted refer to the need for replacement of out-dated machinery, rationalisation, modernisation, major repairs and overhauls, rectification of inefficiency in management, purchases and sales etc., as also improving productivity of labour." (p.3).

The closure of industrial units for short or long

periods because of non-viability must be a phenomenon to be found in varying degrees in all the industries. We do not have data to examine whether this was particularly serious in the textile industry. Under the Industries (Development and Regulation) Act, 1951, Government could make investigations into the working of industrial units if there was a fall in production, an undue rise in price of product, or in case of management of certain units, and on investigation Government could issue directives for rectifying drawbacks failing which Government could take the units under its own management. Because of its large repercussions on employment, the Government appears to have been particularly sensitive to the closure of textile mills and took over a number of what were called 'sick' mills for management. The Cotton Textile Committee 1968 (Maharashtra) gives details of number of mills then taken over under the Industries (Development and Regulation) Act, 1951 and entrusted to the Government of Maharashtra for management. The Model Mills, Nagpur was taken over in 1959 and appears to be the first mill to be so taken over.

In April 1968, the National Textile Corporation Ltd. was incorporated to manage the sick mills taken over by the Government and to rehabilitate/modernise them in order to make them economically viable. At the time of incorporation of the NTC in 1968, there were 16 mills under Government management. But their number rapidly grew. In 1974, there were 103 sick textile mill units under the management of

the NTC. In that year, by the Sick Textile Undertakings (Nationalisation) Ordinance (duly replaced by an Act), these units were nationalised. These units and units taken over subsequently, are now owned and managed by the holding company and 9 subsidiaries constitute the textile Group of Public Enterprises. As on 31st March 1979 the Group owned and managed 111 sick textile units which were earlier in the private sector.

The size of the operation of the NTC and its subsidiaries may be judged by the data on production of yarn and cloth and employment during three years 1976-77, 1977-78, and 1978-79 given in Table 9.29. In parallel columns are shown output of yarn and cloth and employment for the whole textile mill industry. It will be noticed that the NTC and its subsidiaries account for 14 per cent of the output of yarn and 20 per cent of the output of cloth and around 18 per cent of employment in the whole mill industry.

As the NTC and its subsidiaries manage textile units which have been sick and which need rehabilitation, it is to be expected that a number of NTC companies would be in losses. In fact, in 1977-78, out of the ten companies including the holding company, only two showed small profits amounting to Rs.1.93 crores. The remaining 8 companies incurred losses amounting to Rs.43.10 crores. In consequence, the group incurred a net loss of Rs.41.17 crores.

Table 9.29: Production and Employment - NTC Mills, all Mills (1976-77 - 1978-79)

Year	Production of Yarn and Cloth				2/4 %	3/5 %	Employment		8/9 %
	NTC Mills		All Mills				NTC	All	
	Yarn Lakh kgs	Cloth Lakh metres	Yarn Lakh kgs	Cloth Lakh metres			Mills	Mills	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1976-77	1,564.20	8,167.82	11,469.25	41,631.6	13.64	19.62	N.A.	-	
1977-78	1,543.70	8,530.00	11,190.73	43,162.7	13.79	19.76	144,901	817,000	17.74
1978-79	1,700.00	9,200.00	12,346.24	43,275.1	13.77	21.26	161,689	842,000	19.20

Source: Columns 2, 3, 8 : Public Enterprise Survey.

Columns 4, 5, 9 : Indian Textile Bulletin.

Table 9.30: Profits/Losses made by NTC and Subsidiaries
(1977-78 - 1978-79)

Name of Company	Rs. Crores	
	1977-78	1978-79
1. National Textile Corporation (holding Company)	0.69	1.88
2. NTC (Andhra Pradesh, Karnataka, Kerala & Mahe) Ltd.	(-) 4.46	0.47
3. NTC (Gujarat) Ltd.	1.24	5.08
4. NTC (Tamil Nadu & Pondicherry) Ltd.	(-) 0.89	5.02
	(-) 3.42	12.45
5. NTC (Delhi, Punjab & Rajasthan) Ltd.	(-) 4.30	(-) 2.46
6. NTC (Madhya Pradesh) Ltd.	(-) 7.90	(-) 6.34
7. NTC (Maharashtra North) Ltd.	(-) 5.69	(-) 2.25
8. NTC (Maharashtra South) Ltd.	(-) 7.02	(-) 0.56
9. NTC (Uttar Pradesh) Ltd.	(-) 3.12	(-) 0.97
10. NTC (West Bengal, Bihar, Assam & Orissa) Ltd.	(-) 9.72	(-) 8.23
	(-) 37.75	(-) 20.81
TOTAL	(-) 41.17	(-) 8.36

Source: Public Enterprises Survey.

There was considerable improvement in 1978-79. Four companies made profits amounting to Rs.12.45 crores and 6 companies made losses amounting to Rs.20.81 crores. The group made a net loss of only Rs.8.36 crores.

The data for all the companies is given in Table 9.30.

As mentioned above, the main purpose of taking over by the NTC the sick textile mills was to protect the employment therein. In view of the considerable losses that the NTC and its subsidiaries have been incurring, it is obvious that this is being done at considerable cost. We may relate the cost to the employment protected in these mills and the wage-bill thereof. This is done in the following:

Table 9.31: Employment, Wage-bill and Losses in the NTC and its Subsidiaries

	1977-78	1978-79
Number of employees	144,901	161,689
Average emolument per employee (Rs.)	7,632.8	7,330.7
Financial loss (Rs. crores)	41.17	8.36
Loss per employee (Rs.)	2,841.25	517.042
Loss as percentage of wage-bill	37.22	7.05

Thus, in 1977-78, as much as 37.22 per cent of the wage-bill of the workers was met through losses. Fortunately, the percentage came down to 7.05 in 1978-79. The NTC and its subsidiaries have been undertaking large

investment in these mills. Hopefully they will soon start showing profits at least in the aggregate.

The setting up of the National Textile Corporation has brought into focus the problem of the sick mills. From Table 9.22 it will be seen that even in 1975-76, and 1976-77, that is after the majority of the sick mills were taken over by the NTC, more than half the mills in the private sector did not show any profits. If this continues for much longer, it seems that a majority of the textile mills may have to be taken over by the NTC for rehabilitation.

CHAPTER XPERFORMANCE OF THE DECENTRALISED SECTOR : 1951-1980

In this Chapter we shall review the performance of the decentralised sector during 1951-1980. As already noted, the decentralised sector of the textile industry comprises (i) handloom, (ii) powerloom, and (iii) khadi.

The handloom and powerloom use mill yarn and their output is estimated on the basis of the yarn delivered to them by the mills. Earlier, in Table 9.8 we have given the quantities of cotton yarn delivered by the mills to the decentralised sector. In Table 10.1 we reproduce them (col. 2) for convenience of reference.

The yarn delivered to the decentralised sector is taken up mainly by the handlooms and powerlooms; a small quantity also goes into manufacture of hosiery, rope-making etc. Information regarding quantities of yarn taken up by these several users is inadequate and unsatisfactory. The Powerloom Enquiry Committee (1963) noted "The Textile Commissioner has informed us that a formula has been devised on the recommendations of the Fact Finding Committee (Handlooms and Mills), 1942, which assumed 10 per cent of the total availability of yarn as the consumption by hosiery and rope-making, etc., the balance of 90 per cent being taken as the consumption by the handlooms and powerlooms together. As between handlooms and powerlooms the consumption is assumed to be in the ratio of 76:14."

Table 10.1: Estimated Cotton Yarn Consumption and Cloth Production by Handlooms and Powerlooms (1951-1980)

Year	Cotton yarn delivered to decentralised sector mln.kgs.	Estimated consumption by handlooms mln.kgs.	Estimated consumption by powerlooms mln.kgs.	Estimated prdn. of handloom cloth mln.mtrs.	Estimated prdn. of powerloom cloth mln.mtrs.	Production of handloom + powerloom cloth 5 + 6	Production figures for handloom and powerloom cloth given by Indian Textile Bulletin (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	124	94.3	17.4	943	174	1,117	1,013
1952	61	46.4	8.5	464	85	549	1,313
1953	172	130.7	24.1	1,307	241	1,548	1,410
1954	185	140.6	25.9	1,406	259	1,665	1,512
1955	197	149.7	27.6	1,497	276	1,773	1,620
1956	200	152.0	28.0	1,520	280	1,800	1,663
1957	218	165.7	30.5	1,657	305	1,962	1,811
1958	239	181.6	33.5	1,816	335	2,151	1,968
1959	252	191.5	35.3	1,915	353	2,268	2,075
1960	246	187.0	34.4	1,870	344	2,214	2,013
1961	290	220.4	40.6	2,204	406	2,610	2,372
1962	295	224.2	41.3	2,242	413	2,655	2,412
1963	317	215.6	69.7	2,156	697	2,853	2,876
1964	338	229.8	74.4	2,298	744	3,042	3,066
1965	337	229.2	74.1	2,292	741	3,033	3,056
1966	342	232.6	75.2	2,326	252	3,078	3,097

Table 10.1 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1967	350	238.0	77.0	2,380	770	3,150	3,179
1968	389	264.5	85.6	2,645	856	3,501	3,530
1969	390	265.2	85.8	2,652	858	3,510	3,538
1970	406	276.1	89.3	2,761	893	3,654	3,692
1971	369	250.9	81.2	2,509	812	3,321	3,399
1972	416	282.9	91.5	2,829	915	3,744	3,777
1973	405	275.4	89.1	2,754	891	3,645	3,602
1974	438	297.8	96.4	2,978	964	3,942	3,968
1975	438	297.8	96.4	2,978	964	3,942	4,002
1976	449	305.3	98.8	3,053	988	4,041	4,064
1977	405	275.4	89.1	2,754	891	3,645	3,678
1978	449	305.3	98.8	3,053	988	4,041	4,074
1979	485	329.8	106.7	3,298	1,067	4,365	4,326
1980	555	377.4	122.1	3,774	1,221	4,995	4,838

Source: Columns (2) ^{and} (8): Indian Textile Bulletin.

N.B.: (1) Estimated yarn consumption by handlooms and powerlooms is on the basis of the ratio 76:14 for the period 1951-1962 and on the basis of the ratio of 68:22 for the period 1963-1980.

(2) Estimated cloth production by handlooms and powerlooms is on the basis of the conversion ratio of 10 metres of cloth per kg. of yarn consumed.

(p.48, para 4.4). Presumably, estimates of production by handlooms and powerlooms for the period 1942 to 1962 were based on these ratios of yarn consumption.

In 1963, the Powerloom Enquiry Committee (1963) held that "The assumption that 90 per cent of the total yarn availability may be taken to represent the consumption by handlooms and powerlooms together still holds good." (p.49). However, it was felt that the estimates of the relative consumption by handlooms and powerlooms needed to be revised. For this purpose, it was assumed that the yarn supplied in hank form represented consumption by handlooms which in 1963 was estimated to be 70 per cent of the total yarn supplied to the decentralised sector. However, the Committee found that in some centres powerloom establishments utilised yarn in hank form for producing coloured sarees and other similar fabrics. There were also some centres where the powerlooms purchased hank yarn even for grey fabrics. In fact, the Federation of Cotton Powerloom Associations of Maharashtra had estimated the pattern of consumption of yarn by powerlooms as:

(a) Sized beams	50 per cent
(b) Cones	35 per cent
(c) Weft Pirns	5 per cent
(d) Hank Yarn	10 per cent

On this basis, the Committee recommended that "the pattern of yarn consumption must be revised in round figures to 68% by handlooms, 22% by powerlooms and 10% by hosiery, rope

making etc." (p.50).

In columns 3, 4 of Table 10.1 we give the estimates of yarn consumption by handlooms and powerlooms on the basis of the ratio 76:14 for the period 1951-1962 and on the basis of the revised ratio of 68:22 for the period 1963-1980. In columns 5, 6 we have given estimated production of cloth by handlooms and powerlooms, estimated on the basis of the conversion ratio of 10 metres of cloth per kg. of yarn consumed. Column 7 gives total production of cloth by handlooms and powerlooms. It may be compared with the figures for total production of the handlooms and powerlooms as given by the Indian Textile Bulletin (Col.8). It may be seen that with a few exceptions, our estimates of total production of handlooms and powerlooms differ only marginally from the figures provided by the Indian Textile Bulletin. The latter does not give separate figures for handlooms and powerlooms.

Although the estimate of total production by handlooms and powerlooms based on consumption of 90 per cent of yarn delivered to the decentralised sector may be considered satisfactory, the separate estimates for handloom and powerloom production based on fixed ratios are obviously not satisfactory. Beginning with 1969, statistics of deliveries of cotton yarn to the decentralised sector are available in considerable detail. They are given by different counts as well as by the different forms in which yarn is delivered, namely, (i) Hanks, (ii) Cones other than

hosiery cones, (iii) Hosiery Cones, (iv) Beams, (v) Pirns, and (vi) Others. We shall suppose that the yarn delivered in hanks is almost exclusively used by the handlooms weavers. It is known that some yarn in hank form is clandestinely re-reeled into cones for use on powerlooms. But in the absence of reliable estimates, we shall neglect it. Similarly, we shall suppose that the yarn delivered in the form of cones (other than hosiery cones) and also in the form of beams and pirns is almost exclusively used on the powerlooms. It seems to us that these statistics of yarn delivered in various forms should provide a more reliable basis for estimating the use of yarn by handlooms and powerlooms. In Table 10.2 we give the relevant data, namely cotton yarn delivered to the decentralised sector in the form of (i) hanks (col. 3), (ii) cones (other than hosiery cones), beams and pirns (col. 4) for the period 1969-1980. It may be noted that the two together do not constitute quite 90 per cent of the yarn delivered to the decentralised sector but are close to it. For instance, in 1980, the two constitute 87.0 per cent of the yarn delivered to the decentralised sector.

It may be seen that the yarn delivered in hank form has remained stable during 1969-1980 when it ranged between 230 and 250 million kgs. But in 1980 it accounted for only 46 per cent of total yarn delivered to the decentralised sector (col. 5), against 58 per cent in 1969. Thus yarn delivered in hank form is not only much less than 68 per

Table 10.2: Deliveries of Cotton Yarn in different forms to the Decentralised Sector and Estimated Production of Handloom and Powerloom Cloth (1969-1980)

Year	Total Cotton Yarn delivered to decentralised Sector mln.kgs.	Hanks mln.kgs.	Cones (other than hosiery), Beams and Pirns mln.kgs.	3/2 %	4/2 %	Estimated* Cloth prdn. by handlooms mln.metres	Estimated* Cloth prdn. by powerlooms mln.metres	Cloth prdn. by handlooms and powerlooms (7) + (8) mln.metres
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1969	390	226	120	57.95	30.77	2260	1200	3460
1970	406	228	133	56.16	32.76	2280	1330	3610
1971	369	198	129	53.66	34.96	1980	1290	3270
1972	416	222	145	53.37	34.86	2220	1450	3670
1973	405	213	147	52.59	36.30	2130	1470	3600
1974	438	229	165	52.28	37.68	2290	1650	3940
1975	438	237	162	54.14	36.99	2370	1620	3990
1976	449	233	173	51.87	38.53	2330	1730	4060
1977	405	204	164	50.26	40.49	2040	1640	3680
1978	449	219	188	48.73	41.87	2190	1880	4070
1979	485	232	200	47.89	41.24	2320	2000	4320
1980	555	257	226	46.31	40.72	2570	2260	4830

* Estimated on the basis of the conversion ratio of 10 metres of cloth per kg. of yarn.

Source: Indian Textile Bulletin.

cent of yarn delivered to the decentralised sector as estimated by the Powerloom Enquiry Committee (1963), but has been steadily declining since then. On the other hand, yarn delivered in the form of cones (other than hosiery cones), pirns and beams nearly doubled between 1969 and 1980, from about 120 million kgs. in 1969 to about 230 million kgs. in 1980; its proportion to total yarn delivered to the decentralised sector (col. 6) increased to 40 per cent in 1980 against 30 per cent in 1969. Thus again the proportion of yarn delivered in these forms is not only much more than 22 per cent as estimated by the Powerloom Enquiry Committee (1963) but has been steadily increasing since then.

In columns 7, 8 and 9 we give estimated cloth production of handloom, powerloom and total of the two sectors based on yarn consumption data in columns 3 and 4. Naturally, these estimates are at variance with those given in Table 10.1 (columns 5 and 6). Though the total production of handlooms and powerlooms is approximately the same as before, the production of handlooms now appears much smaller and that of powerlooms much higher. Incidentally, the above estimates of handloom production are approximately the same as appear in the Annual Report (1977-78) of the All-India Federation of Cooperative Spinning Mills. (p.23).

Taken together, the production of handlooms and powerlooms increased fourfold, or may be even fivefold,

from about 1000 million metres in 1951 to 4000 million metres in 1978 and to almost 5000 million metres in 1980. The output of handlooms increased from somewhat under 1000 million metres in 1951 to a little over 2000 million metres by 1969 or probably even by 1961; but thereafter, it seems to have remained more or less stagnant at that level. Since 1961, what seems to have grown is only the output of powerlooms. By 1980, the output of powerlooms had almost equalled that of the handlooms.

In addition to cotton cloth, the decentralised sector produces blended, mixed and man-made fibre cloth. This uses two types of yarn: (a) Spun yarn and (b) filament yarn. The spun yarn may be hundred per cent non-cotton, or non-cotton blended with cotton. This is produced by the cotton-spinning system. We have already made reference to its production and deliveries to the decentralised sector (Col. 3, Table 9.3; col. 3, Table 9.9). As to filament yarn, statistics of its production are readily available for 1961 and 1971-1980. These are given in Table 10.3. It may be seen that filament yarn production has gone up from 23 million kg. to 73 million kg. between 1961 and 1980. This is produced in the man-made textile industry and delivered almost exclusively to the decentralised powerloom sector.

Production of blended, mixed and man-made fibre cloth is given in column 2 of Table 10.4. It may be noted that for the period 1951-1970 the figures refer only to man-made

Table 10.3: Production of Filament Yarn, 1961; 1971-1980

thousand kgs.					
Year	Viscose	Acetate	Nylon	Polyester	Total 2+3+4+5 (6)
(1)	(2)	(3)	(4)	(5)	(6)
1961	21,000	2,000	N.A.	N.A.	23,000
1971	37,000	1,000	10,000	1,000	49,000
1972	39,633	1,541	11,699	548	53,421
1973	36,661	1,631	10,918	1,856	51,066
1974	36,624	2,009	9,124	1,273	49,030
1975	33,065	1,889	13,378	2,490	50,822
1976	41,434	1,824	15,477	2,419	61,154
1977	40,531	2,173	16,053	3,319	62,076
1978	42,641	2,094	18,066	6,337	69,138
1979	42,000	2,000	18,000	9,000	71,000
1980	41,306	1,952	19,586	10,500	73,344

Source: Indian Textile Bulletin.

Table 10.4: Cloth Production in the Decentralised Sector (Handloom and Powerloom) (1951-1980)

million metres				
Year	Blended/Mixed/ Man-made Fibre Fabrics	Cotton Cloth	Total 2 + 3	2/4 %
(1)	(2)	(3)	(4)	(5)
1951	287*	1,013	1,300	22.06
1952	176*	1,313	1,489	11.82
1953	237*	1,410	1,647	14.39
1954	308 ⁿ	1,512	1,820	16.92
1955	331*	1,620	1,951	16.97
1956	430*	1,663	2,093	20.54
1957	420*	1,811	2,231	18.83
1958	397*	1,968	2,365	16.75
1959	492*	2,075	2,567	19.17
1960	547*	2,013	2,560	21.37
1961	570*	2,372	2,942	19.37
1962	600*	2,412	3,012	19.92
1963	648*	2,876	3,524	18.39
1964	833*	3,066	3,899	21.36
1965	867*	3,056	3,923	22.10
1966	840*	3,097	3,937	21.34
1967	876*	3,179	4,055	21.60
1968	989*	3,530	4,519	21.89
1969	893*	3,460	4,353	20.51
1970	1,554	3,610	5,164	30.09
1971	1,074	3,270	4,344	24.72

Table 10.4 (contd.)

(1)	(2)	(3)	(4)	(5)
1972	1,020	3,670	4,690	21.79
1973	1,008	3,600	4,608	21.88
1974	937	3,940	4,877	19.21
1975	1,000	3,990	4,990	20.04
1976	1,241	4,060	5,301	23.41
1977	1,727	3,680	5,407	31.94
1978	2,098	4,070	6,168	34.01
1979	2,064	4,320	6,384	32.33
1980	1,860	4,830	6,690	27.80

* Consists only of man-made fibre fabrics.

Source: Col. 2: Indian Textile Bulletin.

Col. 3: Table 10.1, Col. 8 and Table 10.2, Col. 9.

fibre cloth, the production of which increased from 200 million metres to about 1000 million metres during 1951-1970. We have not been able to trace production figures for blended and mixed cloth produced by the decentralised sector during these years. Its production was about 100 million metres in 1971, it increased to over 700 million metres in 1978 and 1979 and was a little over 500 million metres in 1980. The figures in column 2 of Table 10.4 for the years 1971-1980 give the total of blended, mixed and man-made fibre cloth production. This doubled from 1000 million metres in 1971 to around 2000 million metres in 1978-1980.

Total cloth production by the decentralised sector, consisting of cotton and blended, mixed and man-made fibre fabrics is given in column 4 of Table 10.4. This, it may be seen has increased considerably, from 1300 million metres in 1951 to 6600 million metres in 1980. Column 5 of the Table gives the proportion of blended and man-made fibre fabrics to cotton cloth produced. This fluctuated around 20 per cent upto 1975, after which it increased to between 25 to 30 per cent and more during 1976-1980.

Split of production of blended, mixed and man-made fibre fabrics by the decentralised sector into handloom and powerloom production is not available. However, some idea of the position in 1979 can be obtained from figures provided by the Sixth Five Year Plan. The Plan gives total cloth production by the decentralised sector in 1979 to be

6350 million metres, consisting of 2900 million metres handloom cloth and 3450 million metres powerloom cloth. Combining this information with estimates of cotton cloth production by powerloom and handloom given by us in Table 10.2 (Colms. 7, 8), it may be deduced that in 1979, production of blended, mixed and man-made fibre fabrics by handlooms was around 600 million metres, while powerlooms produced around 1400 million metres.

As mentioned in the chapters on Textile Policy Since Independence, the protection and promotion of the handloom, and along with it the powerloom, has been achieved by means of differential excise duties on the mill sector and the handloom and powerloom sectors. Hence, a brief account of the structure of excise duties on textiles will be useful. The following is taken from the Report of the Expert Committee on Tax Measures to Promote Employment (1980) (Chairman: V.M. Dandekar).

The existing pattern of excise levy on textiles is that duty is first charged at the yarn stage and then again at the fabric stage. The fabric duty is also normally payable at two stages: a part at the grey fabric stage and a part when the fabric is processed. Composite mills generally pay the grey stage as well as the processing stage duty at the time of taking clearance of the cloth from the factory. Usually, they pay the yarn duty also at the same time. Besides these excise levies, the mill cloth pays, as mentioned earlier, a certain handloom cess.

Powerloom units usually purchase duty-paid yarn. In addition, powerloom units, other than those authorised by the Textile Commissioner, pay a small compounded duty which is presently Rs.100 per loom per quarter. Authorised powerlooms do not pay any such duty. Powerloom fabrics are exempt from duty at the grey stage. If these fabrics are taken to a processing house working with the aid of power or steam, they become liable to processing duty.

Handlooms do not pay any duty on yarn or any duty on their fabrics at the grey stage. As in the case of powerlooms, they pay the processing duty only if the fabrics are processed with the aid of power or steam but at a lower rate than applicable to powerlooms. In practice, the bulk of the handloom fabrics are processed manually and hence do not pay any duty whatever.

Thus, excise levies have been deliberately used for promoting handloom and powerloom sectors of the textile industry. Briefly: Mills pay duty on yarn, duty on fabrics at grey stage and duty on processing and handloom cess. Powerlooms pay duty on yarn, no duty on fabrics at grey stage and duty on processing only if processed with the aid of power or steam. Handlooms pay no duty on yarn, no duty on fabrics at the grey stage and duty on processing only when processed with the aid of power or steam. The incidence of these several duties on the three sectors of the textile industry in 1979 as worked out by the Expert Committee is given in Table 10.5.

Table 10.5: Incidence of Excise Duties on the Textile Industry (1979)

(paise per sq. metre)

Description (1)	Handloom fabric (2)	Powerloom fabric Yarn + Fabric = Total (3)	Mill Fabric Yarn + Fab + Cess = Total (4)
1. <u>Unprocessed or hand-processed fabrics</u>			
(i) Superfine	Nil	23.8 + Nil = 23.8	23.8 + 54.1 + 1.9 = 79.8
(ii) Fine	Nil	30.7 + Nil = 30.7	30.7 + 82.4 + 1.9 = 115.0
(iii) Medium A	Nil	12.0 + Nil = 12.0	12.0 + 8.0 + 1.9 = 21.9
(iv) Medium B	Nil	5.6 + Nil = 5.6	5.6 + 6.2 + 1.9 = 13.7
(v) Coarse	Nil	4.5 + Nil = 4.5	4.5 + 8.5 + 1.9 = 14.9
2. <u>Power processed fabrics</u>			
(i) Superfine: White	28.6	23.8 + 45.3 = 69.1	23.8 + 67.6 + 1.9 = 93.3
Others	51.6	23.8 + 49.4 = 73.2	
(ii) Fine : White	20.3	30.7 + 67.9 = 98.6	30.7 + 103.1 + 1.9 = 135.7
Others	36.6	30.7 + 74.1 = 104.8	
(iii) Medium A	2.7	12.0 + 9.5 = 21.5	12.0 + 15.0 + 1.9 = 28.9
(iv) Medium B	1.6	5.6 + 4.9 = 10.5	5.6 + 7.8 + 1.9 = 15.3
(v) Coarse	5.7	4.5 + 10.0 = 14.5	4.5 + 15.9 + 1.9 = 22.3

Source: Report of the Expert Committee on Tax Measures to Promote Employment (1980), p.82.

On the basis of the following (Table 10.6) estimates (provisional) of production of cotton fabrics in the three sectors in 1978-79 the Expert Committee estimated that the duty advantage enjoyed in one year by the handlooms and powerlooms over the mills amounted to Rs.47.44 crores and Rs.27.27 crores respectively.

Table 10.6: Estimates (Provisional) of Production of Cotton Fabrics (1978-79)

(million metres)				
	Mill Sector	Powerloom	Handloom	Total
Superfine	167	195	103	465
Fine	94	301	191	586
Medium-A	1623	696	445	2764
Medium-B	889	347	753	1989
Coarse	418	229	553	1200
Total	3191	1768	2045	7004

Source: Report of the Expert Committee on Tax Measures to Promote Employment (1980), p.83.

These provisional estimates of production are in close agreement with the final estimates. Hence, the estimates of the duty advantage obtained by the handlooms and powerlooms in 1979 made by the Committee stand.

In addition to these excise exemptions and concessions handloom cloth marketed through approved agencies is given substantial rebates on retail sales. Thus: (1) in some States, a 5 per cent rebate is given on handloom cloth of

all varieties throughout the year; (2) in several States for specified periods, of about 2-3 months, a 10 per cent rebate is given on handloom cloth sometimes only of selected varieties; (3) in all States, for one month in a year, a special rebate of 20 per cent is given half of which is shared by the Centre; further (iv) in National exhibitions, etc., a special rebate of 20 per cent is given half of which is shared by the Centre. The total amount of rebate on sale of handloom fabrics as given in the Report of the Committee on Controls and Subsidies came to Rs.11 crores for 1977-78. It appears that this figure relates only to the amount given by the Centre. The total amount of subsidy given in this manner would be considerably higher.

Besides the excise duty exemptions and concessions and the rebate on sales, the handloom industry also gets interest subsidy upto 3 per cent on loans to handloom cooperatives to ensure credit at 6.5 per cent. The borrowings from the central financing institutions by primary weavers' cooperatives in 1975-76 amounted to about Rs.17.7 crores. Hence the interest subsidy would amount to about Rs.50 lakhs annually. But, this is a cost not so much of protecting employment but of cooperativisation. Hence, we shall consider it separately.

Taking into account these rebates and concessions, the Expert Committee estimated that the direct and indirect financial assistance given to the handloom and powerloom

sectors in 1978-79 amounted to Rs.58.44 crores and Rs.27.27 crores respectively as shown in Table 10.7 below:

Table 10.7: Financial Assistance to Handloom and Powerloom Industries

(Rs. crores)		
	Powerloom	Handloom
Duty advantage over mills	27.27	47.44
Rebates on sales	-	11.00
Total	27.27	58.44

Source: Report of the Expert Committee On Tax Measures To Promote Employment (1980), p.84.

Raison d'etre of this assistance is the employment, at a certain wage level, protected and promoted in the handloom and powerloom sectors. Hence it should be appraised in that context. Unfortunately, the data on the subject is too scanty and inadequate. The Expert Committee noted: "In spite of the fact that a deliberate policy of protecting the handloom industry from the competition of the mill industry has been pursued over the past 30 years, data on the subject is very inadequate." (para 6.32, p.84).

A study on the choice of technology prepared by the Technology Analysis Unit in the Project Appraisal Division of the Planning Commission, referred to by the Expert Committee gives the following employment/output ratios for the three sectors:

Table 10.8: Employment/Output Ratios

(person-days per 1000 metres)			
	Mill	Powerloom	Handloom
20 x 20 count	21	25	230
40 x 40 count	24	29	380

Source: Report of the Expert Committee on Tax Measures to Promote Employment (1980), p.85.

The Expert Committee thought that these were somewhat overestimates. They seem to be so. For instance, as we have noted, in the mill sector, employment in weaving and preparatory operations is 60 persons per million metres. On the basis of 300 working days of the year, this gives 18 person-days per 1000 metres. In what follows, we shall estimate the employment in the mill weaving at the rate of 60 persons per million metres. As regards the wages per worker, we shall take the evidence of the NTC mills. As earlier mentioned, in the NTC mills, the average emolument per employee in 1978-79 was Rs.7330.7. We shall round this to Rs.7500 per worker per annum.

As for the handloom and powerloom sectors, the latest and apparently most reliable data are those given by the Survey of Handloom Sector (1978) published by the South India Textile Research Association, Coimbatore. Data are given for two items of production: (i) blended dhoties, and (ii) grey gada. In the following are given the wages

for weaving and preparatory operations per 100 metres.

Table 10.9: Wages for Weaving and Preparatory Operations

	(Rs. per 100 metres)	
	Handloom	Powerloom
Bleached dhoti	125.8	44.7
Grey gada	102.5	55.8*

* Includes powerloom owners profits and excise duty on yarn.

Source: Report of the Expert Committee On Tax Measures To Promote Employment (1980), p.p.89-90.

In the following, we shall assume that wage for weaving and preparatory operations is Rs.1.20 per metre in handloom and Rs.0.50 per metre in powerloom.

To estimate the employment in the handloom, we shall assume it to be ten times as much as in the mills: that is, 600 persons per million metres. This gives a daily output per worker of 6 metres for approximately 275 days of the year and at the rate of Rs.1.20 per metres, an annual wage of Rs.2000 per worker.

The employment potential of the powerloom is only a little larger than that of the mills. As given above, the Project Appraisal Division of the Planning Commission placed it only about 20 per cent higher. We shall assume it to be 80 persons per million metres compared to 60 persons per million metres in mills. This gives a daily output of a little over 40 metres and at the rate of Rs.0.50

per metre, an annual wage of Rs.6250 compared to the annual wage of Rs.7500 assumed in the mill industry.

All these figures appear to be plausible. But they are based on very scanty data. In the following we shall use them mainly to illustrate the argument and indicate the dimension of financial assistance presently given to the handloom and powerloom sector in order to protect employment at certain wage levels.

Let us first consider the employment in the handloom sector. According to the provisional estimates made by the Expert Committee, the production of handlooms in 1978-79 was 2045 million metres. We shall continue to use these provisional estimates because the Expert Committee's estimate of duty advantage to handloom is based on this estimate. At the rate of 600 persons per million metres, the output of 2045 million metres would provide full-time employment to 1,227,000 persons. This is the full-time equivalent of the reported 10 million employed in the handloom sector. At the rate of Rs.1.20 per metre, it would generate a wage bill of Rs.245.4 crores. If the same output was produced in the mills, at the rate of 60 persons per million metres, it would provide employment to only 122,700 persons. At the rate of Rs.7500 per person employed, it would generate a wage bill of Rs.92.025 crores. Thus the additional employment and the additional wage bill generated in the handloom sector in 1978-79 is as shown in Table 10.10.

Table 10.10: Additional Employment and Additional Wage Bill generated in the Handloom Sector in 1978-79

Output of 2045 million metres	Full time employment	Wage bill Rs. crores
In the handloom sector	1,227,000	245.4
In the mill sector	122,700	92.025
Additional in the handloom sector	1,104,300	153.375

The direct and indirect financial assistance given to the handloom sector, estimated at Rs.58.44 crores, should be related to this additional employment namely 1,104,300 persons, and additional wage bill namely Rs.153.375 crores provided by the handloom sector. It works out to be Rs.529.20 per person additionally employed and 38.10 per cent of the additional wage bill created.

We might similarly relate the financial assistance given to the powerloom sector, estimated at Rs.27.27 crores in 1978-79, to the additional employment and wage-bill created in the sector. The estimated production of the powerloom sector in 1978-79 was 1768 million metres. On the basis of employment of 80 persons per million metres and wage rate of Rs.0.50 per metre, the additional employment and wage bill created in this sector appear as under:

Table 10.11: Additional Employment and Additional Wage-bill generated in the Powerloom Sector in 1978-79

Output of 1768 million metres	Full-time employment	Wage-bill Rs. crores
In the powerloom sector	141,440	88.4
In the mill sector	106,080	79.56
Additional in the powerloom sector	35,360	8.84

The financial assistance given to the powerloom sector, estimated at Rs.27.27 crores in 1978-79, when related to the additional employment namely 35,360 persons and additional wage bill namely Rs.8.84 crores created in that sector works out to be Rs.7712 per person additionally employed, at the annual wage-rate of Rs.6250, and over 300 per cent of the additional wage bill created. The financial assistance to the powerloom sector thus appears to be wholly unjustified, a point emphasised by the High Powered Study Team On The Problems Of Handloom Industry (1974). If we put together the handloom and the powerloom sectors, the direct and indirect financial assistance works out to about Rs.750 per additional worker employed and over 50 per cent of the additional wage bill generated over and above what the mill sector would provide for the same amount.

It has been emphasised by all previous Committees including the Expert Committee On Tax Measures To Promote

Employment (1980) that the decentralised sector, particularly the handloom sector, suffers from many disadvantages other than the low productivity of its techniques. The handloom weavers have to buy yarn at high prices and sell their fabrics at low prices. The Expert Committee noted: "In fact, the handloom weaver is mostly a wage earner and all the margins are usurped by the trader-moneylender who supplies them yarn, the credit and who markets their product. There is little doubt that the handloom weaver, and in general the unorganised sector of production, suffers from these several handicaps." The Committee proceeds to say: "These (handicaps) are generally recognised and, beginning with the First Plan, it has been emphasised that the unorganised sector must be provided with the necessary infrastructure for the supply of raw materials, credit and for the marketing of its product. Even in the handloom sector, which is relatively better attended to, the conditions in these respects are not entirely satisfactory. We wish to emphasise that in the absence of such infrastructure, the duty advantages would go to unintended quarters, namely the trader-moneylender and not the handloom weaver for whom they are intended." (p.88).

The need to provide the unorganised sector with an infrastructure for supply of raw materials, credit and for the marketing of its products has been recognised from the beginning. It has also been a part of the official policy

that this should be achieved as far as possible by organising the producers in the unorganised sector in suitable cooperatives. For instance, the Village and Small Scale Industries (Second Five Year Plan) Committee (1955) was directed to frame schemes so that, among other objectives, "production and marketing in these industries is organised, in the main, on cooperative lines."

In handloom industry, a certain organisational structure was firmly established which presented both a problem and a challenge to attempts to foster a cooperative organisation. The situation was well expressed by the Fact Finding Committee (1942) and again by the High Powered Study Team On The Problems Of Handloom Industry (1974). In three brief sections: internal re-organisation, the place of middlemen, and future of co-operation, the Fact Finding Committee (1942) said:

"The internal difficulties of the hand-weaving industry are connected with the high cost of yarn, credit and marketing, all of which are intertwined in the usual mahajani system The weavers under the mahajans do not have to buy yarn or arrange for marketing their goods, but their earnings are even lower. The average weaver is unable to arrange for the supply of yarn and credit on economical terms; he can only do the weaving when he gets the yarn A large number of weavers are now financed by mahajans these middlemen have been a necessary concomitant of the industry. It is true that

some of these middlemen have exploited the weavers' helplessness, but without their aid the impecunious hand-weaver would not have obtained his yarn nor found adequate markets. They have amassed a great wealth of knowledge about the business side of the industry and it would be very difficult to replace them. Further, a good number of them are of the same caste as the weavers, are in intimate social contact with them and are genuinely interested in their welfare. In these circumstances, it would be wiser to utilise them in some way than to challenge their existence by setting up the co-operative society or any other institution as a rival agency to them Where the mahajan system is not fully established, co-operation is the only possible means of meeting the needs of the hand-weavers There is a general view that the weavers' co-operation in India has failed but this is due more to the application of unsuitable methods and is not due to the essential weakness of the co-operative principle." (pp.213-215).

Thirty years later, in 1974, the High Powered Study Team on the Problems of Handloom Industry, in two brief sections on Co-operative Sector and Master Weaver Sector, said the following:

"As a policy, it has been considered that the handlooms being a village and cottage industry can best be developed in the co-operative sector. The scope for exploitation in this sector being vast, it is generally

accepted that a co-operative getting together of the weavers themselves is the best answer to end the exploitation. All schemes of handloom development have, therefore, taken the establishment and improvement of co-operatives as a cardinal element in their plan. Unfortunately, the system has so far integrated only the credit aspect of co-operation with very little emphasis on the supply and marketing aspects of the situation. Further, though it is a rural industry requiring a large amount of supervised credit, no special resources have been earmarked for the co-operative credit system as has been done for agricultural credit in the rural sector. As a result, many difficulties in reaching credit in sufficient quantities to the weavers have arisen because of certain inherent weaknesses in the co-operative credit structure. Added to this, the lack of emphasis on supplies and marketing has continued the system of exploitation which exists in the yarn supply market and cloth marketing system which exploits the weaver."

"The master-weaver sector is at present fulfilling an important function in handloom development. This is the sector which is taking leadership in new designs and development of the markets. There has been some criticism demanding that the master weaver should be abolished. The Team is of the view that it would be a serious mistake if at the present stage of development we try to abolish this sector. Till the co-operative sector is sufficiently developed and is able to give full service to its members

and come up at least to the level which the master weavers have reached, it will be against the interests of weavers to interfere with this sector. The only effective control that would be necessary would be to ensure a minimum wage in this sector so that there is no temptation to pay low wages because of buyers' market." (pp. 11, 12).

It is thus evident that in spite of much effort, the progress in organizing the handloom weaver in co-operatives is rather limited. The same is true of powerloom weavers. In the following, we shall present the available data.

The data on primary cotton handloom weavers' cooperative societies are available from 1965-66 to 1977-78. They are given in Table 10.12.

It will be seen that after some initial decline, the primary co-operative societies are stabilised at about 5000 active societies with about 500,000 members, a little over 300,000 working looms and output valued at Rs.50 crores. These are the figures for the year 1975-76. There was some decline in 1976-77 and a sudden jump in 1977-78.

Taking the figures for 1975-76 as normal or stable, we might relate them to the total handloom sector. According to the Sixth Five Year Plan, there are about 30 lakh handlooms in the country. Thus, the handloom weavers' co-operatives cover only about 10 per cent of the handlooms. This is a far cry from the target set by the High Powered Study Team on the Problems of Handloom Industry (1974) to bring by the end of the Fifth Plan about 60 per cent of the

Table 10.12: Progress of Primary Cotton Handloom Weavers' Societies

Year	Number of Societies		Membership	No. of	Value of
	Total	Of which	of Active	working	cloth
		Active	Societies	looms	produced
			Societies,		thsd.Rs.
			Individuals		
			& others		
(1)	(2)	(3)	(4)	(5)	(6)
1965-66	10,122	6141	7,58,806	4,62,014	7,58,726
1966-67	9,924	5625	7,18,006	4,16,875	7,17,938
1967-68	9,596	4724	6,26,504	3,43,514	6,26,277
1968-69	9,931	4737	6,32,449	3,74,614	6,31,785
1969-70	10,567	4941	7,32,769	4,70,467	7,32,303
1970-71	10,357	4987	6,75,860	3,45,833	6,75,178
1971-72	10,365	4933	6,47,182	3,22,636	6,46,605
1972-73	10,616	5415	6,68,968	3,19,308	6,68,355
1973-74	10,923	5484	6,38,816	3,18,087	6,38,129
1974-75	10,588	5197	6,25,008	3,30,521	6,24,370
1975-76	9,059	5000	4,99,531	3,18,191	4,99,117
1976-77	8,596	4794	4,95,102	2,60,949	4,94,646
1977-78	12,180	6639	6,31,066	4,73,418	6,30,699

Source: Statistical Statements Relating to Co-operative Movement in India.

handlooms under the co-operative fold.

The coverage of the co-operative sector appears even smaller when considered in relation to output. We have earlier given the output of handloom sector in million metres. As ^{ee}seen in Table 10.12 we have the output of the handloom co-operatives in value terms namely about Rs.50 crores. To relate the two, we must find the value of the output of the handloom sector. Again, we must refer to the Sixth Five Year Plan. According to the Plan, the output of handloom sector in 1979-80 was 2900 million metres valued at Rs.1740 crores, that is at Rs.6 per metre. The output of handloom sector in 1975-76 (Table 10.2, col. 7) was 2370 million metres which valued at Rs.6 per metre amounts to Rs.1422 crores. Hence, the output of the handloom co-operatives in 1975-76 probably amounted to no more than 3.5 per cent of the total output of the handloom sector.

The reasons for the small coverage of the handloom co-operatives and their apparent stagnation at this low level are to be seen in their financial position. The relevant data are given in Table 10.13-A and 10.13-B.

As indicated in Table 10.12, all the co-operative societies are not active; only about half the societies are active. Further not all active societies show profits. In Table 10.13-A, the handloom co-operative societies are classified into active societies and among the latter, those showing profits. In the last two columns, the active

**Table 10.13-A: Financial Position of Bombay Cotton
Handloom Weavers' Societies
(1965-66 - 1977-78)**

Year	Number of Societies			3/2 %	4/2 %
	Total	Of which active	Of which making profits		
(1)	(2)	(3)	(4)	(5)	(6)
1965-66	10,122	6141	3699	60.67	36.54
1966-67	9,924	5625	3694	56.68	37.22
1967-68	9,596	4724	3352	49.23	34.93
1968-69	9,744	4737	3739	48.61	38.37
1969-70	10,567	4941	3492	46.76	33.05
1970-71	10,357	4987	3931	48.15	37.96
1971-72	10,365	4933	3146	47.59	30.35
1972-73	10,616	5415	3657	51.01	34.45
1973-74	10,923	5484	3915	50.21	35.84
1974-75	10,588	5197	4451	49.08	42.04
1975-76	9,059	5000	2584	55.19	28.52
1976-77	8,596	4794	3036	55.77	35.32
1977-78	12,180	6639	4335	54.51	35.59

Source: Statistical Statements Relating to Co-operative Movement in India.

Table 10.13-B: Financial Position of Primary Cotton Handloom Weavers' Societies (1965-66 to 1977-78)

Year	Paid-up Capital		Borrowings		Value of	Net Profit/ Loss
(1)	Total	of which Government	Total	Of which Government	(6)	(7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1965-66	52,475	697	134,862	58,780	378,825	(-) 10,342
1966-67	54,262	941	139,338	61,327	402,535	(+) 1,573
1967-68	51,832	1,151	119,570	48,191	348,289	(-) 4,495
1968-69	61,500	1,680	133,500	48,520	368,907	(-) 3,370
1969-70	64,767	2,806	142,400	55,104	510,145	+ 372
1970-71	73,907	3,880	131,287	49,667	621,650	+ 5,751
1971-72	73,983	4,782	144,805	47,424	678,769	+ 7,951
1972-73	82,429	6,273	146,742	46,704	725,124	+ 11,210
1973-74	89,922	10,390	165,342	46,271	1,012,803	+ 31,103
1974-75	104,695	14,693	189,614	48,028	1,067,222	+ 26,748
1975-76	100,536	16,878	180,084	38,209	780,184	+ 15,729
1976-77	124,339	42,210	178,082	41,341	784,340	+ 16,781
1977-78	146,733	50,399	176,672	49,201	796,610	+ 8,870

Source: Statistical Statements Relating To Co-operative Movement In India.

societies and those showing profits are shown as percentages of all societies. It will be seen that only about half the societies are active and only about one-third showing profits.

In Table 10.13-B are shown the paid-up capital, borrowings, value of sales and aggregate profits/loss of the societies. It will be noticed that the contribution of the Government to the share-capital of the co-operatives has increased over the years. It was only 1.3 per cent of the total paid-up capital in 1965-66; it rose to 34.3 per cent in 1977-78.

In the initial three out of four years, namely 1965-66 to 1968-69, the societies showed losses in the aggregate. Since 1969-70, the societies have shown profits in the aggregate. But even at their highest, they do not constitute more than 3 per cent of sales. Moreover, as mentioned earlier, besides the excise duty exemptions and concessions and the rebate on sales which the handloom industry gets, the handloom co-operatives get an interest subsidy upto 3 per cent on loans to ensure credit at 6.5 per cent. It will be seen that in the absence of this subsidy, the profits of the co-operatives will appear considerably reduced.

Similar data for powerloom co-operatives are given in Tables 10.14, 10.15-A, 10.15-B.

From Table 10.14 it will be seen that after some initial decline, the powerloom co-operatives have steadily

Table 10.14: Progress of Primary Powerloom Weavers' Societies (1965-66 to 1977-78)

Year	No. of Societies Total	Of which Active	Membership of Active Societies, Individuals and others	No. of working looms	Value of cloth produced Rs. thsd.
(1)	(2)	(3)	(4)	(5)	(6)
1965-66	377	337	48,513	23,110	66,902
1966-67	405	330	48,926	25,932	69,852
1967-68	301	227	33,481	8,378	51,486
1968-69	352	256	37,977	12,662	59,563
1969-70	393	287	44,237	11,888	95,577
1970-71	404	283	41,718	17,231	97,245
1971-72	533	392	61,418	44,540	1,28,257
1972-73	608	438	64,777	53,507	1,74,239
1973-74	682	511	68,547	58,739	2,85,934
1974-75	639	477	48,315	60,717	2,24,316
1975-76	567	410	47,795	60,466	1,74,846
1976-77	560	410	50,693	39,083	1,65,715
1977-78	981	492	50,315	49,872	2,45,577

Source: Statistical Statements Relating to Co-operative Movement in India.

**Table 10.15-A: Financial Position of Primary Powerloom Weavers' Co-operative Societies
(1965-66 - 1977-78)**

Year	Number of Societies			3/2 %	4/2 %
	Total	Of which Active	Of which making profits		
(1)	(2)	(3)	(4)	(5)	(6)
1965-66	377	337	196	89.39	51.99
1966-67	405	330	213	81.48	52.59
1967-68	301	227	152	75.42	50.50
1968-69	352	256	151	72.73	42.90
1969-70	393	287	177	73.03	45.04
1970-71	404	283	167	70.05	41.34
1971-72	533	392	228	73.55	42.78
1972-73	608	438	260	72.04	42.76
1973-74	682	511	273	74.93	40.03
1974-75	639	477	251	74.65	39.28
1975-76	567	410	208	72.31	36.68
1976-77	560	410	180	73.21	32.14
1977-78	981	492	394	50.15	40.16

Source: Statistical Statements Relating To The Co-operative Movement In India.

Table 10.15-B: Financial Position of Primary Powerloom Weavers' Co-operative Societies

Rs. thousand

Year	<u>Paid-up Capital</u>		<u>Borrowings</u>		Value of sales	Net Profit/ Loss
	Total	Of which Government	Total	Of which Government		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1965-66	54,39	272	2,59,88	1,44,77	6,37,02	+ 693
1966-67	63,19	307	3,06,73	1,52,25	6,90,95	+ 46
1967-68	54,47	346	2,50,98	1,37,93	5,34,15	- 31
1968-69	78,86	612	3,19,96	1,70,75	7,04,83	- 138
1969-70	85,68	759	3,60,17	1,76,43	11,28,79	- 447
1970-71	1,00,41	16,86	5,04,69	1,51,62	11,83,72	- 1671
1971-72	1,40,93	21,28	6,38,05	1,90,90	15,22,01	- 409
1972-73	1,56,52	23,82	7,01,08	1,75,60	20,96,90	- 1440
1973-74	1,85,16	32,46	7,67,52	2,17,19	32,77,39	- 1255
1974-75	1,75,57	34,43	7,18,55	1,72,16	31,72,85	- 7638
1975-76	1,81,96	41,62	7,79,73	1,39,32	16,34,46	- 9998
1976-77	3,09,53	1,21,12	7,33,84	1,63,65	19,26,73	- 6094
1977-78	3,64,77	89,54	9,19,39	1,71,05	26,24,63	- 5496

Source: Statistical Statements Relating to Co-operative Movement In India.

increased though figures reported for some years appear erratic. On the basis of the figures for 1977-78, we may say that there are about 400 active powerloom co-operatives, with 50,000 looms and output worth Rs.24 crores. According to the Sixth Plan, by December 1979, there were 4.83 lakhs powerlooms. Thus, the powerloom co-operatives cover about 10 per cent of all powerlooms. Again, according to the Sixth Plan, the value of powerloom production was estimated at Rs.3250 crores in 1979-80. If we place it at about Rs.3000 crores in 1977-78, it seems that the powerloom co-operatives accounted for about 8 per cent of powerloom production. Thus, the coverage of co-operatives in terms of loomage is about the same as in handlooms, about 10 per cent. But in terms of value of output, it is much greater in powerlooms (about 8 per cent) than in handlooms (about 3.5 per cent).

Table 10.15-A gives the number of active co-operatives and the number showing profits. It will be seen that the proportion of active co-operatives came down rapidly from about 90 per cent in 1965-66 to about 75 per cent in 1967-68. Since then it has stayed between 70 and 75 per cent. The proportion of societies showing profits also dropped from about 50 per cent during 1965-68, to around 40 per cent during 1968-75, to less than one-third in 1976-77. In 1977-78 there was a sudden jump in the number of societies, a sharp fall in the proportion of active societies (50 per cent) but some improvement in the proportion of societies

showing profits (40 per cent).

In Table 10.15 is given the paid-up capital, borrowings, value of sales and net profits/loss of the powerloom co-operatives. As in the case of the handloom co-operatives, Government's contribution to share capital has increased over the years from about 5 per cent in 1965-66 to about 25 per cent in 1977-78.

But the most shocking aspect of the performance of the powerloom co-operatives is that for over ten years from 1967-68 to 1977-78, they, in the aggregate, have shown continuous losses and that in some years the losses have amounted to as much as 40 or even 50 per cent of the total paid-up capital of the societies. We could not ascertain whether like the handloom co-operatives, the powerloom co-operatives also get interest subsidy on their borrowings. In view of what we have earlier said about the advantages which the powerloom sector enjoys, vis-a-vis both the mill sector and the handloom sector, it is surprising that the powerloom co-operatives should make such continuous losses.

Allied to the development of handloom and powerloom co-operatives is the development of co-operative spinning mills formed by the cotton-growers and/or weavers. In the following, we shall briefly review their progress. In Table 10.16 are given the relevant data.

It will be seen that the number of co-operative spinning mills increased steadily until 1966-67 when their number was 66. Thereafter, the number stagnated and in fact

**Table 10.16: Progress of Co-operative Spinning Mills
(1957-58 - 1977-78)**

Year	No. of Mills	No. of Spindles	Value of yarn sold Rs. thsd.
(1)	(2)	(3)	(4)
1957-58	10	35,000	39,27
1958-59	14	69,000	74,24
1959-60	16	1,50,962	1,36,36
1960-61	21	1,75,122	1,82,77
1961-62	25	2,20,568	2,84,76
1962-63	30	2,72,780	3,46,92
1963-64	47	5,02,664	4,73,05
1964-65	57	6,92,996	6,51,05
1965-66	65	8,39,832	7,50,98
1966-67	66	8,93,415	11,53,93
1967-68	63	8,68,546	20,68,39
1969-70	62	8,71,416	27,37,11
1970-71	62	9,13,038	36,84,69
1971-72	61	9,23,410	45,44,90
1972-73	61	9,34,684	49,06,64
1973-74	73	12,16,836	78,95,34
1974-75	68	9,58,784	66,00,29
1975-76	73	9,89,534	76,97,52
1976-77	71	14,84,916	86,86,85
1977-78	60	13,70,356	94,99,43

Source: Statistical Statements Relating To Co-operative Movement in India.

declined to 61 in 1972-73. Next year it suddenly jumped to over 70 and then again suddenly came down to 60 in 1977-78. In the latter year there were about 350 spinning mills in the country. Thus about one-fifth of spinning mills were then in the co-operative sector.

The number of spindles in the co-operative sector grew more steadily and reached almost one million in 1975-76. Next year, in 1976-77, the number suddenly jumped to almost 1.5 million and declined slightly the following year. As noted earlier, in 1977-78, the number of spindles in the mills, both spinning and composite, was a little under 20 million. Thus, about 7.5 per cent of the total spindleage was then in the co-operative sector. If we take into account the spindleage in the spinning mills only, it was about 7.5 million in 1977-78. Thus, in that year about 20 per cent of the spindleage in the spinning mills was in the co-operative sector.

There was a corresponding increase in the value of yarn sold by the co-operative spinning mills. It increased from about Rs.40 lakhs in 1957-58, to about Rs.95 crores in 1977-78. A considerable part of this increase was of course due to the steep rise in the yarn prices during this period.

As mentioned above, the co-operative spinning mills are formed by cotton-growers and/or weavers. On that basis, the co-operative spinning mills are classified into three classes, namely, (i) of cotton-growers, (ii) of weavers, and (iii) of mixed type. In Table 10.17 we give the shares

Table 10.17: Value of Yarn Production by Cooperative Spinning Mills and Share of different classes of Mills (1965-66 - 1977-78)

Year	Share percentage in value of yarn output			Value of total yarn output Rs. thsd.
	Cotton growers' cooperatives	Weavers' cooperatives	Mixed type cooperatives	
(1)	(2)	(3)	(4)	(5)
1965-66	-	52.52	47.48	7,53,42
1966-67	1.34	83.34	15.31	11,56,25
1967-68	6.55	77.97	15.48	16,28,68
1968-69	10.54	78.62	10.84	18,62,55
1969-70	16.83	71.84	11.33	25,09,49
1970-71	23.52	64.48	12.01	35,21,74
1971-72	25.71	62.74	11.55	44,34,63
1972-73	27.73	61.56	10.70	46,23,97
1973-74	32.03	56.75	11.22	66,19,95
1974-75	34.01	53.30	12.69	68,51,44
1975-76	32.99	52.99	14.03	73,04,33
1976-77	28.74	48.29	22.98	88,68,60
1977-78	41.03	36.49	22.49	84,35,94

Source: Statistical Statements Relating To Cooperative Movement In India.

of these three classes of spinning co-operatives in the value of total yarn produced.

It will be seen that the spinning co-operatives began primarily as weavers' co-operatives. For instance, in 1966-67, in the value of yarn produced, the weavers' cooperatives accounted for 83.34 per cent, the co-operatives of the mixed type, that is of weavers and cotton-growers, accounted for 15.31 per cent, and the co-operatives of cotton-growers accounted for only 1.34 per cent. However, subsequent growth has been predominantly of the cotton-growers' co-operatives. In 1977-78, they accounted for over 40 per cent of the yarn produced; the purely weavers' co-operatives accounted for less than 40 per cent of the yarn produced; the co-operatives of the mixed type accounted for the balance of about 20 per cent of yarn produced.

Though, as indicated above, the co-operative spinning mills now constitute about one-fifth of spinning mills in the country and are thus an important element in the decentralised sector of the textile industry, the financial results of their operations are far from satisfactory. The relevant data are given in Tables 10.18-A and 10.18-B.

From Table 10.18-A it will be seen that except in 1973-74, when about half the spinning co-operatives showed profits, and in 1972-73 when about 40 per cent of them showed profits, in all the years, fewer than one-third, one-fourth or even fewer than one-fifth of the co-operatives

Table 10.18-A: Financial Position of Co-operative Spinning Mills (1965-66 to 1977-78)

Year	No. of Mills		3/2 %
	Total	Of which making profits	
(1)	(2)	(3)	(4)
1965-66	65	16	24.62
1966-67	66	17	25.76
1967-68	66	16	24.24
1968-69	63	12	19.05
1969-70	62	16	25.81
1970-71	62	14	22.58
1971-72	61	20	32.79
1972-73	61	24	39.34
1973-74	73	38	52.06
1974-75	68	13	19.12
1975-76	73	12	16.44
1976-77	71	14	19.72
1977-78	60	19	31.67

Source: Statistical Statements Relating To Co-operative Movement In India.

Table 10-18-B: Financial Position of Cooperative Spinning Mills (1965-66 to 1977-78)

(Amount in thousands of rupees)

Year	Paid-up capital Total	Of which Government	Value of sale of yarn	Net Profit or Loss
(1)	(2)	(3)	(4)	(5)
1965-66	11,99,96	6,28,05	7,50,98	(-) 14,472
1966-67	14,55,80	8,08,35	11,53,93	(-) 27,208
1967-68	16,82,33	9,40,87	16,19,64	(-) 49,371
1968-69	18,63,09	11,03,57	20,68,39	(-) 51,307
1969-70	20,96,91	12,91,59	27,37,11	(-) 46,920
1970-71	23,04,78	14,60,33	36,84,69	(-) 46,645
1971-72	24,79,92	15,88,55	45,44,90	(-) 40,454
1972-73	27,01,44	17,57,51	49,06,64	(-) 78,59
1973-74	30,12,68	18,80,98	78,95,34	+ 2,47,21
1974-75	30,79,03	19,58,13	66,00,29	(-) 93,64
1975-76	35,35,78	23,76,03	76,97,52	(-) 95,359
1976-77	35,14,24	23,45,25	86,86,85	(-) 98,666
1977-78	32,66,10	22,18,06	94,99,43	(-) 54,036

Source: Statistical Statements Relating To Co-operative Movement In India.

showed profits. Table 10.18-B shows that in the aggregate they have made losses continuously in all the years from 1965-66 to 1977-78, except in 1973-74.

In Table 10.18-B is also shown the paid-up capital of the co-operatives and Government's contribution to the same. Government's contribution to the spinning co-operatives has always been large, over 50 per cent, and has been growing over the years: in 1977-78 it contributed 67.9 per cent of the total paid-up capital. Therefore, it is of some concern that the spinning co-operatives have been continuously making losses and the losses have often been as high as 20 per cent of the total paid-up capital.

We cannot but conclude that the performance of the co-operative sector of the textile industry, whether handloom co-operatives, powerloom co-operatives or spinning co-operatives, has been quite unsatisfactory. Among these, the handlooms suffer from a certain technological disadvantage which has been compensated by duty exemptions, concessions and rebates on sales. The co-operatives were expected to eliminate the other disadvantages such as in the supply of raw materials, credit and the marketing of their output. For this purpose, the co-operatives have been amply assisted by Government and Central financing agencies. Nevertheless, they have not done much good. The powerlooms do not suffer much from any technological disadvantage over the mills. In fact, they have enjoyed much unjustified duty exemptions. Nevertheless, their

co-operatives, in spite of much governmental assistance, have performed even worse than the handloom co-operatives. The spinning co-operatives have no technological disadvantage whatever. They have been given ample financial assistance. But, they have shown continuous losses. All this is very disappointing and discouraging to the policy of promoting a decentralised sector and organising it in suitable co-operatives.

Finally, we may turn to khadi, being the decentralised sector par excellence. In Table 10.19 is given the output of cotton khadi from 1953-54 to 1980-81. In a parallel column is given the value of output. It will be seen that between 1953 and 1958, the output of cotton khadi increased steadily to reach 56.315 million sq. metres in 1958-59. For the next three years, the output remained stagnant around that figure; the output in 1961-62 was 57.110 sq. metres. During the next five years from 1962-63 to 1966-67, the output jumped and stayed around 70.0 million sq. metres. But thereafter, it steadily declined and fell below 50.0 million sq. metres in 1975. In the last five years, it has been increasing and was almost 80 million sq. metres in 1980-81. Of course the value of output has increased much more because of the rise in prices. The value of khadi per sq. metre was about Rs.2.25 until 1961-62. In 1980-81 it was almost Rs.10 per sq. metre.

During the period from 1953-54 to 1980-81, the output of khadi increased almost tenfold: from 8.6 million sq.

Table 10.19: Production of Cotton Khadi
(1953-54 - 1980-81)

Year (1)	Quantity in lakh sq. metres (2)	Value Rs. in lakhs (3)
1953-54	85.85	190.33
1954-55	153.52	334.22
1955-56	230.26	498.68
1956-57	343.21	740.69
1957-58	474.26	971.27
1958-59	563.15	1195.88
1959-60	557.43	1194.24
1960-61	490.59	1116.02
1961-62	571.10	1287.00
1962-63	667.95	1584.33
1963-64	624.75	1514.33
1964-65	719.83	1455.53
1965-66	755.29	1876.19
1966-67	696.56	1971.81
1967-68	568.68	1743.76
1968-69	543.58	1735.65
1969-70	557.10	1870.36
1970-71	496.28	1758.54
1971-72	452.45	1800.16
1972-73	493.25	2098.46
1973-74	478.19	2169.99
1974-75	506.17	2940.07

Table 10.19 (contd.)

(1)	(2)	(3)
1975-76	475.92	3327.50
1976-77	553.49	3882.20
1977-78	572.17	4241.11
1978-79	594.66	4899.74
1979-80	684.77	5987.18
1980-81	794.82	7592.78

Source: KVIC.

metres in 1953-54 to 79.5 million sq. metres in 1980-81. This is of course a very creditable performance. Nevertheless, in 1980-81, khadi accounted for only about 1 per cent of total output of cotton cloth.

The *raison d'être* of the khadi programme is its employment potential. Hence, we may examine the employment provided by the industry. Systematic data on employment in cotton khadi are available from the year 1974-75. Similar data are also available for 1971-72. The employment is divided into four categories: (i) spinners, (ii) weavers, (iii) artisans, and (iv) salaried staff. Presumably, the artisans are those employed on maintenance and repair of equipment. The salaried staff is presumably the one employed by the Commission and the khadi institutions for the administration of the programme probably including the sales.

In Table 10.20 are given the number of workers of different categories employed in the production of cotton khadi. In Table 10.21 we give the wages paid to them. We may note incidentally that the very large number of artisans, 20,593, employed in 1976-77 appears to be out of line with the numbers employed in other years and probably is an error. We may also note that the wages paid to the spinners, who are the main target group in the khadi programme, form about 40 per cent of the total wage payment while the wages paid to the salaried staff constitute about 25 per cent.

Table 10.20: Employment in Cotton Khadi

Year	No. of persons employed				Total 2+3+4+5
	Spinners	Weavers	Artisans	Salaried Staff	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	6,97,000	58,000	13,000	21,000	789,000
1974-75	6,55,340	56,800	11,050	19,830	743,020
1975-76	5,70,670	54,000	9,820	21,060	655,550
1976-77	5,69,848	59,513	20,593	19,000	668,954
1977-78	5,97,332	74,567	12,568	19,958	704,425
1978-79	6,59,281	70,513	14,524	21,170	765,488
1979-80	7,16,983	75,164	14,422	23,051	829,620

Source: KVIC.

Table 10.21: Wages in Cotton Khadi

Year	Wages Rs. in Lakhs			Salaried Staff	Total 2+3+4+5 (6)
	Spinners	Weavers	Artisans		
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	491.85	344.40	100.35	302.24	1238.84
1974-75	799.90	514.16	203.16	471.92	1989.14
1975-76	690.82	514.85	171.10	546.18	1922.95
1976-77	731.45	722.38	236.87	596.17	2286.87
1977-78	874.27	711.08	241.27	571.04	2397.66
1978-79	1,017.67	790.83	294.94	681.03	2784.47
1979-80	1,225.67	974.18	340.25	780.83	3320.93

Source: KVIC.

In Table 10.22 are given the number of workers per million metres of khadi. In Table 10.23 are given wages paid per metre of khadi. From Table 10.22 it will be seen that the number of workers employed per million metres khadi declined considerably between 1971-72 and 1979-80. For instance, the number of spinners employed per million metres of khadi has come down from 15,405 in 1971-72 to 10,470 in 1979-80. The number of weavers per million metres has come down from 1282 in 1971-72 to 1100 in 1979-80. The decline might be due partly to improvement in spinning and weaving equipment and partly to fuller employment being provided to fewer persons.

To assess the full-time employment potential of the programme, we need output norms of full-time employment. These are not readily available for the khadi sector. Hence, we shall have to improvise some. Earlier, we suggested that the employment requirement of the handloom weaving may be taken to be ten times the same for the mill weaving which came to 600 persons per million metres of cloth. At the weaving wage of Rs.1.20 per metre, we also took Rs.2000 to be annual earnings of a full-time handloom weaver in 1978-79. It seems that weaving of hand-spun yarn takes more time and hence we suggest that full time employment in khadi weaving be taken to be 1000 persons per million metres. This comes to four metres per weaver per day for 250 days of the year. Table 10.23 shows that the weaving wage in khadi was Rs.1.24 and Rs.1.32 per metre in

Table 10.22: Employment per Million Sq. Metres Khadi

Year	Employment per million metres khadi				
	Spinners	Weavers	Artisans	Salaried Staff	Total 2+3+4+5
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	15,405	1,282	287	464	17,438
1974-75	12,947	1,122	218	392	14,679
1975-76	11,991	1,135	206	443	13,774
1976-77	10,296	1,075	273	343	12,086
1977-78	10,440	1,303	220	349	12,312
1978-79	11,087	1,186	244	356	12,873
1979-80	10,470	1,098	211	337	12,115

Table 10.23: Wages (Rs.) per Sq. Metre Cloth in Cotton
Khadi (1971-72, 1974-75 to 1979-80)

Year (1)	Spinners (2)	Weavers (3)	Artisans (4)	Salaried Staff (5)	Total 2+3+4+5 (6)
1971-72	1.0871	0.7612	0.2218	0.6680	2.7381
1974-75	1.5803	1.0158	0.4014	0.9323	3.9298
1975-76	1.4516	1.0818	0.3595	1.1476	4.0405
1976-77	1.3215	1.3051	0.4280	1.0771	4.1317
1977-78	1.5280	1.2428	0.4217	0.9980	4.1905
1978-79	1.7028	1.3232	0.4935	1.1452	4.6590
1979-80	1.7899	1.4226	0.4969	1.1403	4.8497

1977-78 and 1978-79 respectively. This would give the annual earnings of a full-time weaver in khadi industry to be about Rs.1240 and Rs.1325 in 1977-78 and 1978-79 respectively. These figures appear reasonable.

As for the spinners, we shall take the ratio between spinners and weavers to be 4:1 that is four full-time spinners per full-time weaver. This gives the full-time employment of 4000 spinners per million metres of khadi. This may be compared to about 40 spinners per million metres in mills. As per Table 10.23 the spinning wage in khadi was Rs.1.53 and Rs.1.70 per metre of cloth in 1977-78 and 1978-79 respectively. This gives the annual earnings of a full-time spinner in khadi industry at Rs.383 and Rs.425 respectively. We shall presume that the artisans and salaried staff are employed full-time and therefore take the figures for their employment and earnings as they are reported. On this basis, we shall examine the employment and earnings in khadi in 1977-78. The relevant data are given in Table 10.24. The reason to choose 1977-78 is that we shall examine the employment we have for that year readily available estimates of financial assistance given to khadi industry made by the Expert Committee On Tax Measures To Promote Employment (1980) so that we may be able to relate the financial assistance to the employment protected industry.

Table 10.24: Employment and Earnings per Million
Metres of Khadi (1977-78)

Category	Number	Wages Rs.	Earnings per worker Rs.
Spinners	4000	1,528,000	382.0
Weavers	1000	1,242,800	1,242.8
Artisans	220	421,700	1,728.3
Salaried staff	349	998,000	2,803.4
Total	5569	4,190,500	

Thus the Khadi programme protects the full-time equivalent employment of 5600 workers per million metres of khadi output. Among them are 4000 spinners, 1000 weavers, 220 artisans, and 349 salaried staff. Their full-time average annual earnings in 1977-78 were Rs.382.0 for the spinner, Rs.1242.8 for the weaver, Rs.1728.3 for the artisan and Rs.2803.4 for the salaried staff.

This employment is protected at considerable direct and indirect financial assistance. Like the handloom industry, the khadi industry receives financial assistance in three forms: (i) exemption from excise duty, (ii) sales rebate, and (iii) interest subsidy. According to the Expert Committee on Tax Measures to Promote Employment (1980), the financial assistance to the khadi industry in 1977-78 was as under:

Table 10.25: Financial Assistance to Khadi Industry
in 1977-78

	Rs. crores
Duty advantage	3.73
Sales rebate	8.79
Interest subsidy	6.62
	19.14

Source: Report of the Expert Committee On Tax Measures To Promote Employment, p.92.

Thus, in 1977-78, the direct and indirect financial assistance to the khadi programme amounted to Rs.19.14 crores. This was for an output of 57.217 million metres which comes to Rs.3,345,150 per million metres of output.

In addition to the above assistance, the Khadi and Village Industries Commission receives grant-in-aid from the Government. In 1977-78, this amounted to Rs.9.0 crores for the khadi programme to the Commission. The khadi programme consists, besides cotton khadi, woollen and silk khadi. Hence, the grant must be related to the total output of all khadi which in 1977-78 was 68.412 million metres. Thus the grant comes to Rs.1,315,559 per million metres. We suppose that this grant is in addition to the assistance shown above such as the sales rebate. But we have not been able to verify. Hence, we shall not add it to the above assistance.

Even if we exclude this grant assistance, the direct

and indirect financial assistance to khadi programme amounted to Rs.3,345,150 per million metres in 1977-78. As shown in Table 10.24, the total wage bill, that is of all workers including spinners, weavers, artisans and salaried staff amounted to Rs.4,190,500 per million metres. Thus, the direct and indirect financial assistance to the khadi industry amounts to 79.83 per cent of the total wage bill generated in khadi production.

But the target group of the khadi programme is the hand-spinner. We should therefore examine to what extent his employment is supported by direct and indirect financial assistance. For this purpose, we should find out the additional financial assistance that the khadi programme receives because it is based on hand-spun yarn. If it used the mill yarn, it would cease to be khadi industry and would be reduced merely to handloom industry. As handloom industry, it would be entitled to a certain assistance. As mentioned earlier, according to the estimates of the Expert Committee on Tax Measures to Promote Employment (1980), the direct and indirect financial assistance to the handloom sector in 1978-79 amounted to Rs.58.44 crores for an estimated output of 2045 million metres. This works out to be Rs.288,215 per million metres. We may suppose that the level of assistance would be the same in 1977-78. Hence the additional financial assistance to the khadi industry over and above that given to handloom industry because khadi is based on hand-spun

yarn, works out to be Rs.3,345,150 - Rs.288,215 = Rs.3,056,935 per million metres of khadi output. The justification for this is the employment of hand-spinners which the khadi programme protects. Hence, this assistance should be related to the employment of hand-spinners and their wage bill. As shown in Table 10.24, a million metres of khadi output provides employment to 4000 spinners with a total wage bill of Rs.1,528,000. Hence, the financial assistance given to the khadi programme over and above that given to the handloom industry when related to the employment of spinners and their wage bill in 1977-78 works out to be Rs.764.2 per full-time equivalent of spinners employed. As shown in Table 10.24, the annual full-time wage of a spinner in 1977-78 was Rs.382.0. Thus the financial assistance given to protect the employment of spinners comes to twice the wages paid to the spinners. This would be true for all the years.

As mentioned earlier, in spite of so much assistance, the khadi programme has not been able to produce more than one per cent of the total cloth output in the country. In the context of earlier hopes to meet the entire additional needs of cloth in the country through khadi, this must be considered a failure. The reason why the khadi production could not expand further is, either that, whatever its merits, khadi does not sell. Or, it may be the low productivity of the spinning equipment: in 1977-78, even working full-time for 250 days of the year, it would give

the spinner an annual wage of Rs.383. In 1979-80, it was Rs.425. It may be that whatever the facts of unemployment and poverty, the spinners are unwilling to accept employment at this low wage even when the entire wage comes out of financial assistance.

In conclusion, we may say that in the decentralised sector of the textile industry, the handloom sector has done well. Under the protection given to it, its production of cotton cloth has expanded to an annual output of about 2000 million metres, while the production of blended, mixed and man-made fibre cloth has expanded to about 600 million metres. Cotton handloom weaving provides employment to about 1,200,00 full-time equivalent of weavers which is 1,080,000 more than what the mill industry could employ for the same output. Admittedly, even the full-time earnings of a handloom weaver (Rs.2000) are much below those of a mill weaver (Rs.7500). But evidently, employment even at this low wage is acceptable. Hence, it seems it was worth protecting. The cost of protecting this employment has been high almost Rs.60 crores per annum which works out to about Rs.500 per full time employed weaver and about 25 per cent of his wage bill. Further, if we relate this cost only to the additional employment (1,080,000) and additional wage bill (Rs.150 crores) that the handloom sector provides over and above what the mill sector would provide for the same output, the cost comes to Rs.550 per additional weaver employed and 40 per cent of

the additional wage bill.

A disconcerting aspect of the policy is that this high cost of protection has been extended substantially to the powerloom industry as well, somewhat uncritically. Taking full advantage of such protection, the powerloom sector has expanded rapidly to an annual output of about 2000 million metres of cotton cloth and 1400 million metres of blended, mixed and man-made fibre cloth, that is more than the handloom industry. The employment of the powerloom sector is only a little more than that of the handloom sector. For an output of 2000 million metres of cotton cloth the employment in the powerlooms is only about 160,000 full-time weavers with a wage bill of Rs.100 crores. The additional employment and the additional wage bill it provides, over and above what the mill sector would provide for the same output, is only 40,000 workers and Rs.10 crores. The cost of protecting this employment is about Rs.30 crores which is Rs.7500 per additional worker employed and three times the additional wage bill generated.

If we consider the handloom and the powerloom sectors together, with 2000 million metres of cotton cloth output in each, the financial assistance amounting to Rs.90 crores works out to over Rs.800 per additional worker employed and 56.25 per cent of the additional wage bill generated in these sectors over and above what the mill sector would provide.

The need to organise the workers in these sectors into

suitable co-operatives which would supply them raw materials and credit and market their output has been recognised from the beginning. However, in spite of much effort and assistance it has not been possible to bring more than 10 per cent of the handlooms and powerlooms within the co-operative fold. The functioning of a large number of the co-operatives have also not been very satisfactory. Hence, in the absence of the requisite infrastructure to supply raw materials and credit and for marketing the output, much financial assistance to these sectors probably goes to the unintended quarters, namely the trader-moneylender middlemen.

The same is true of the spinning co-operatives. With much financial assistance and support, the co-operatives have made considerable progress and now account for 20 per cent of the spindleage in the spinning mills. But, over a decade, the spinning co-operatives have been showing continuous losses in the aggregate often amounting to 20 per cent of the paid-up capital.

Khadi is the decentralised sector par excellence and one with the highest employment potential. With much financial assistance and public support, the khadi sector has now expanded to an annual output of about 60 million metres. This provides employment to 240,000 full-time equivalent of spinners at a low annual wage of less than Rs.400. The financial assistance to protect this employment amounting to about Rs.20 crores works to more than Rs.800 per

spinner and twice his annual wage.

In spite of so much assistance, the khadi output does not constitute more than one per cent of the total cloth output in the country. If it had expanded much more, the high cost of the support might have proved probably too burdensome.

The decentralised sector of the cotton textile industry now receives direct and indirect financial assistance amounting to Rs.110 crores (Rs.60 crores for the handlooms + Rs.30 crores for the powerlooms + Rs.20 crores for khadi). We have not been able to ascertain whether and to what extent it receives similar assistance for non-cotton fabrics which as we have noted constitutes a substantial proportion of the output of the decentralised sector. There is besides the direct and indirect assistance given to handloom, powerloom and spinning co-operatives and grants-in-aid given to the Khadi and Village Industries Commission for its khadi programme. Even after 30 years of sustained policy to protect and promote decentralised, labour-intensive, co-operative production in the textile industry one does not feel confident to pronounce that the benefits have been commensurate with the costs.

CHAPTER XICLOTHING THE MILLIONS

In this final and concluding chapter, we shall bring together the mill and the decentralised sectors of the textile industry and appraise the growth in its output, allow for exports and imports and assess the availability of cloth in relation to the growth in population over the last three decades. In Table 11.1 we bring together the production of all sectors of the industry for the period from 1951 to 1980. It will be seen that the production is divided into two main classes: (i) cotton cloth and (ii) blended, mixed and man-made fibre fabrics. The output of cotton cloth is shown separately for mills, powerlooms, handlooms and khadi. It increased from under 5000 million metres in 1951 to over 8000 million metres in 1980.

The output of blended, mixed and man-made fibre fabrics is given for mills and decentralised sectors, as break-up for the powerloom and handloom is not available. It may be seen that its production (col. 9) increased from 300 million metres in 1951 to around 3000 million metres during 1978-1980.

The output of all cloth increased from under 5000 million metres in 1951 to over 10,000 million metres or almost 11,000 million metres in 1980. Its main components in 1980 were: 76.4 per cent cotton cloth and 23.6 per cent

Table 11.1: Production of Textiles (1951-1980)

Year	million metres								
	Mills	Production of Cotton Cloth			Total 2+3+4+5	Production of Blended/Mixed/ Man-made Fibre Cloth			Total Textile Pro- duction 6+9
		Power- loom	Hand- loom	Khadi		Mills	Decentra- lised Sector	Total 7+8	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1951	3,727	174	943	N.A.	4,844	13	287	300	5,144
1952	4,205	85	464	N.A.	4,754	15	176	191	4,945
1953	4,461	241	1,307	9	6,018	8	237	245	6,263
1954	4,570	259	1,406	15	6,250	6	308	314	6,564
1955	4,658	276	1,497	23	6,454	5	331	336	6,790
1956	4,852	280	1,520	34	6,686	6	430	436	7,122
1957	4,816	305	1,657	47	6,871	4	420	424	7,295
1958	4,505	335	1,816	56	6,712	4	397	401	7,113
1959	4,504	353	1,915	56	6,828	3	492	495	7,323
1960	4,616	344	1,870	49	6,879	3	547	550	7,429
1961	4,701	406	2,204	57	7,368	2	570	572	7,940
1962	4,560	413	2,242	67	7,282	3	600	603	7,885
1963	4,423	697	2,156	63	7,339	3	648	651	7,990
1964	4,654	744	2,298	72	7,768	3	833	836	8,604
1965	4,588	741	2,292	76	7,697	4	867	871	8,568
1966	4,284	752	2,326	70	7,432	13	840	853	8,285
1967	4,098	770	2,380	57	7,305	6	876	882	8,187

Table 11.1 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1968	4,366	856	2,645	54	7,921	4	989	893	8,814
1969	4,168	1,200	2,260	56	7,684	65	1,031	1,161	8,642
1970	4,157	1,330	2,280	50	7,817	89	1,554	1,643	9,460
1971	3,957	1,290	1,980	45	7,272	150	1,074	1,224	8,496
1972	4,245	1,450	2,220	49	7,964	100	1,020	1,120	9,084
1973	4,169	1,470	2,130	48	7,817	131	1,008	1,139	8,956
1974	4,316	1,650	2,290	51	8,307	125	937	1,062	9,369
1975	4,032	1,620	2,370	48	8,070	235	1,000	1,235	9,305
1976	3,739	1,730	2,330	55	7,854	425	1,241	1,666	9,520
1977	3,144	1,640	2,040	57	6,881	992	1,727	2,719	9,600
1978	3,317	1,880	2,190	60	7,447	1,011	2,098	3,109	10,556
1979	3,231	2,000	2,320	69	7,620	854	2,064	2,918	10,538
1980	3,482	2,260	2,570	80	8,392	732	1,860	2,592	10,984

Source: Cols. 2, 7: Table 9.12, Cols. 2, 3.
 Cols. 3, 4: Table 10.1, Cols. 5, 6, Table 10.2, Cols, 7, 8.
 Col. 5: Table 10.19, Col. 2.
 Col. 8: Table 10.4, Col. 2.

blended, mixed and man-made fibre cloth. Of the cotton cloth, 41.5 per cent was mill cloth, 26.9 per cent was powerloom cloth, 30.6 per cent was handloom cloth, and 1.0 per cent was khadi. Of the blended, mixed and man-made fibre fabrics, 28.2 per cent was mill-made and 71.8 per cent was from the handlooms and powerlooms.

A sizeable part of India's cloth production is exported. Data on textile exports, among other exports, are published regularly in the Statistics of Foreign Trade of India, published by the Directorate General of Commercial Intelligence and Statistics, Calcutta and are included in the Indian Textile Bulletin. Separate figures are available for cotton textiles and of man-made fabrics. Exports of blended textiles are not separately available; presumably they are negligible. Exports of cotton textiles are shown separately for mills, handlooms and powerlooms. Further, under each category exports are given separately for cloth and apparel, made-ups and other manufactures. We shall first consider the exports of mill-made cloth and cloth manufactures. In Table 11.2 are given the relevant data for the period 1951 to 1980. In columns 2 and 3 are given exports of mill-made cloth in quantity (col. 2) and in value (col. 3) terms. In col. 4 are given exports of mill-made cloth in the shape of apparel and made-ups. Naturally, these are available not in quantity terms but only in terms of value. The value of an apparel or a made-up is of course not just of cloth used in it;

Table 11.2: Exports of Mill-Made Cotton Fabrics, Apparel and Made-Ups
(1951-1980)

Qty. million metres - Value: Rs. millions

Year	Mill-Made Fabrics Quantity	Mill-Made Fabrics Value	Mill-Made Appa- rels and Made- Ups Value	Per Unit Value of Fabrics 3+2	Estimated Cloth equi- valent of Apparels and Made- ups Qty. (6)	Total Mill Exports 2+6 Qty. (7)	Exports/ Production (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	672.99	N. A.	N. A.			672.99	18.06
1952	501.09	N. A.	N. A.			501.09	11.92
1953	596.37	N. A.	N. A.			596.37	13.37
1954	820.88	N. A.	N. A.			820.88	17.96
1955	745.68	N. A.	N. A.			745.68	16.01
1956	680.53	N. A.	N. A.			680.53	14.03
1957	767.19	596.28	N. A.			767.19	15.93
1958	531.67	412.08	N. A.			531.67	11.80
1959	745.94	554.43	N. A.			745.94	16.56
1960	635.35	582.92	N. A.			635.35	13.76
1961	522.04	458.55	46.80	0.8784	31.97	554.01	11.78
1962	464.85	399.56	47.84	0.8595	33.39	498.24	10.93
1963	485.69	410.22	82.92	0.8466	58.77	544.46	12.31
1964	507.02	492.95	81.65	0.9722	50.39	557.41	11.98
1965	506.85	472.53	104.30	0.9323	67.12	573.97	12.51

Table 11.2 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1966	424.77	492.12	127.86	1.1586	66.23	491.00	11.46
1967	409.56	593.71	146.88	1.4496	60.80	470.36	11.48
1968	475.10	667.65	174.74	1.4053	74.62	549.72	12.59
1969	418.49	630.90	183.71	1.5076	73.12	491.61	11.79
1970	419.10	681.26	264.70	1.6255	97.71	516.81	12.43
1971	387.14	674.68	314.00	1.7427	108.11	495.25	12.52
1972	453.26	851.15	485.70	1.8778	155.19	608.45	14.33
1973	649.68	1,611.54	970.80	2.4805	234.82	884.50	21.22
1974	373.11	1,306.12	1,416.70	3.5006	242.82	615.93	14.27
1975	417.90	1,202.07	1,868.80	2.8765	389.81	807.71	20.03
1976	563.31	2,011.77	3,097.90	3.5713	520.47	1,083.78	28.99
1977	266.32	1,075.20	2,970.00	4.0372	441.40	707.72	22.51
1978	310.99	1,342.00	4,094.10	4.3153	590.10	901.09	22.17
1979	393.72	1,873.80	4,295.20	4.7592	541.50	935.22	28.95
1980	300.00	1,644.20	4,866.20	5.4807	532.73	832.73*	23.92

* Includes handloom cotton manufactures.

Source: Indian Textile Bulletin, DGCI & S, Calcutta.

it is the value of cloth plus the value added in manufacture. Our problem is first to find the value of cloth used in the apparel or made-up and then convert it into quantity terms so that by adding to the quantity of cloth exported as cloth we may find the total quantity of mill cloth exported each year.

For this purpose, some relevant data are available in a sample study of the cost structure of the ready-made garments industry in Bombay (Bombay is the leading centre of the industry in terms of both production and exports) undertaken by the Economic and Scientific Research Foundation and published in March 1969. In Table 11.3 we have given the cost of fabric and total cost of production of different types of cotton garments produced in large, medium and small sized units constituting the sample.

From the data, the conclusion drawn by the survey was: "On an average cloth accounts for 60 per cent of the cost, cutting and stitching another 20 per cent, and the balance, embellishments, overheads, etc.)* Hence, in converting value of cotton manufactures exported into equivalent quantities, we have found it reasonable to assume that 60 per cent of the total value represents the value of cloth.

Hence, in the following, we shall assume that of the value of apparel and made-ups, 60 per cent is the value of cloth used in the manufacture. To convert the value of

* Economic and Scientific Research Foundation, Survey of India's Export Potential of Textiles and Made-up Garments, Volume III, p.36.

**Table 11.3: Cost of Fabrics in Total Costs of
Manufacture of Cotton Garments**

Rs.				
Size of unit (1)	Type of garments (2)	Total cost (3)	Cost of fabrics (4)	4/3 % (5)
<u>Large Scale Units:</u>	1. Cotton shirt	10.00	6.00	60.00
<u>Medium Sized Units:</u>	1. Terycot shirt	38.70	23.00	59.43
	2. Poplin shirt	12.00	8.00	66.67
	3. Cotton trouser	10.00	7.00	70.00
	4. Cotton shirts	11.50	5.50	47.83
	5. Cotton shirts	20.00	13.40	67.00
	6. Cotton boiler suit	17.35	12.30	70.89
	7. Terycot shirt	100%	70 %	70.00
	8. Cotton shirt	100%	75 %	75.00
<u>Small Sized Units:</u>	1. Cotton	15.00	10.00	
	2. Cotton trousers	20.00	15.00	

Source: Economic and Scientific Research Foundation,
Survey of India's Export Potential of Textiles
and Made-up Garments, March 1969, p.p. 37-39.

cloth into quantity of cloth, we shall use the per unit value of cloth exported as cloth. This is shown in column 5 of Table 11.2. It will be noticed that the per unit value of cloth exported as cloth has increased from Rs.0.88 per metre in 1961 to Rs.5.48 per metre in 1980. To convert value of cloth used in the apparel and made-up (60 per cent of its value), we shall use these unit value value of cloth. The result is shown in column 6 of Table 11.2. It gives the quantity of cloth used in the apparel and made-ups exported. This added to the quantity of cloth exported as cloth, gives the quantity of mill cloth exported, cloth or in the shape of apparel and made-ups. This is shown in column 7 of Table 11.2.

It will be seen that the exports of mill cloth thus estimated have increased from about 600~~0~~ million metres in 1953 to about 900 million metres in 1978. Naturally, the exports have fluctuated from year to year. But, it seems barring a few exceptional years the exports of cloth stayed around 600 million metres until 1972. Since then there has been a certain step up in the exports and by 1980 the exports seem to be around 800 million metres.

We may relate the exports to production. This is done in column 8 of Table 11.2. It shows the exports of mill cloth as a percentage of the production (column 2 of Table 11.1). This percentage has fluctuated from year to year barring a few exceptions, it fluctuated between 11 and 12 per cent until 1970. Since then, it has increased so that

by 1980 it seems that almost 25 per cent of the mill production was exported.

Earlier we have noted the decline in the production of cotton mill cloth since 1970. This coupled with increased exports means that the Indian textile mill industry is becoming increasingly dependent on exports.

Similar estimates and analysis of the exports of handloom and powerloom cloth is presented in Tables 11.4 and 11.5. It will be noticed that the exports of handloom cloth suffered relatively larger ups and downs. The exports were between 50 and 55 million metres during 1951-1955. Thereafter they declined and fell even below 30 million metres. However, like the exports of mill cloth, the exports of handloom cloth also increased rapidly since 1972 and have stayed above 100 million metres since 1977. Nevertheless as a proportion of the handloom production, the handloom exports did not exceed 5 per cent. Hence, it seems that the expansion of the handloom production has been mainly founded on the domestic market in which it is protected from the mill industry.

Incidentally, we may note the difference in the per unit value of mill-made cloth and handloom cloth exported as cloth (column 3 of Table 11.2 and column 5 of Table 11.4). It will be noticed that the per metre value of handloom cloth exported is consistently about two times that of the per metre value of mill made cloth exported. In spite of its distinctive features because of which the

Table 11.4: Exports of Cotton Handloom Fabrics and Manufactures (1951-1980)

Year	Value in Rs. millions.		Quantity in million metres.			Total Handloom Exports 2/6 Quantity	Exports/Pdn.
	Handloom Fabrics Quantity	Value	Handloom Mfgs. Value	Permit Value of Fabrics 3/2	Estimated Cloth equivalent of mfgs. Quantity (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1951	79.55	N.A.	N.A.			79.55	8.44
1952	49.38	"	"			49.38	10.64
1953	58.16	"	"			58.16	4.45
1954	53.17	"	"			53.17	3.78
1955	52.62	"	"			52.62	3.52
1956	55.00	"	"			55.00	3.62
1957	34.30	55.63	"			34.30	2.07
1958	32.16	52.35	"			32.16	1.77
1959	32.06	65.91	"			32.06	1.67
1960	26.38	50.14	"			26.38	1.41
1961	25.92	47.87	7.47*	1.8468	2.43	28.35	1.29
1962	25.96	57.85	9.61	2.2284	2.59	28.55	1.27
1963	33.22	77.26	21.19	2.3257	5.47	38.69	1.79
1964	33.72	77.77	18.45	2.3063	4.80	38.52	1.68
1965	39.69	95.26	30.44	2.4001	7.61	47.30	2.06
1966	37.02	67.27	16.74	1.8171	5.53	42.55	1.83

Table 11.4 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1967	31.87	68.46	18.47	2.1481	5.16	37.03	1.56
1968	18.64	45.89	35.83	2.4619	8.73	27.37	1.03
1969	26.34	71.55	41.65	2.7164	9.20	35.54	1.57
1970	27.94	77.93	49.82	2.7892	10.50	38.44	1.69
1971	28.67	99.54	64.55	3.4719	11.16	39.83	2.01
1972	47.15	165.18	68.80	3.5033	11.78	58.93	2.70
1973	67.23	320.57	95.50	4.6783	12.25	79.48	3.73
1974	49.37	290.46	132.70	5.8833	13.53	62.90	2.75
1975	58.15	393.52	134.20	6.7673	11.90	70.05	2.96
1976	74.56	531.53	222.20	7.1289	18.70	93.26	4.00
1977	104.36	815.90	345.40	7.8181	26.51	130.87	6.42
1978	84.60	628.00	289.10	7.4232	23.37	107.97	4.93
1979	80.88	688.90	344.00	8.5176	24.23	105.11	4.53
1980	103.14	895.10	291.30	8.6755	20.16	123.30	4.80

Source: Indian Textile Bulletin, DGCI & S, Calcutta.

* Relates to 9 months from April to December 1961.

Table 11.5: Exports of Cotton Powerloom Fabrics and Manufactures (1965-1980)

Year	Quantity - million metres.		Value - Rs. millions				Exports/Pdn.
	Powerloom Fabrics Quantity	Powerloom Fabrics Value	Powerloom Mfgs. Value	Permit Value of Fabrics 3/2 (5)	Estimated Cloth equivalent of mfgs. (6)	Total Power- loom Exports 2+6 Qty. (7)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1965	1.03	1.60				1.03	0.14
1966	0.45	0.80				0.45	0.06
1967	1.56	2.50				1.56	0.20
1968	2.13	3.00				2.13	0.25
1969	2.77	4.20	5.55	1.5162	2.20	4.97	0.41
1970	5.13	6.72	6.70	1.3099	3.07	8.20	0.62
1971	6.47	8.52	6.50	1.3168	2.96	9.43	0.73
1972	10.28	14.22	6.50	1.3833	2.82	13.10	0.90
1973	19.69	43.39	4.40	2.2037	1.20	20.89	1.42
1974	13.62	35.90	13.80	2.6358	3.14	16.76	1.02
1975	10.58	28.54	13.40	2.6975	2.98	13.56	0.84
1976	32.02	89.30	63.90	2.7889	13.75	45.77	2.65
1977	24.85	75.80	35.20	2.0503	10.30	35.15	2.14
1978	62.43	216.30	19.50	3.4647	3.38	65.81	3.50
1979	65.62	239.40	34.50	3.6483	5.68	71.30	3.57
1980	63.00	254.80	112.20	4.0444	16.65	79.65	3.52

handloom cloth has special advantage in the export market, the wide price differential between it and the mill made cloth exports may be responsible for its relatively low export performance.

From column 7 of Table 11.5 it will be seen that the exports of powerloom cloth have increased gradually. However, even in 1980, they constitute only about 3.5 per cent of powerloom production. The per metre value of powerloom cloth is nearly the same as that of mill cloth. But, the powerloom cloth has no special features for the export market. On the other hand, in the domestic market it has duty advantage over the mill cloth. It seems therefore that the expansion of powerloom production has been at the cost of mill cloth in the domestic market, while mill cloth is thrown more and more on the export market.

In addition to exports of cotton textiles, India also has a small export of man-made fabrics. As mentioned earlier, exports of blended and mixed fabrics are presumed to be negligible. Figures for exports of man-made fabrics are readily available for the period 1960-72 in terms of quantities (million metres). In terms of values (millions of rupees) the figures are readily available for the period 1960-1980. These are given in Table 11.6. It may be seen that exports remained under ⁷⁵ million metres during 1960-1972. Value of exports remained under Rs.100 million during 1960-1972, but increased to Rs.400 million by 1980.

Table 11.6: Exports of Man-Made Fabrics (1960-1980)

Year	Quantity million metres	Value Rs. million	Exports percentage of production
(1)	(2)	(3)	(4)
1960	36.74	45.95	6.68
1961	77.48	67.43	13.55
1962	77.80	83.49	12.92
1963	88.40	105.75	13.58
1964	57.40	65.79	6.87
1965	45.47	49.04	5.23
1966	25.26	29.01	2.96
1967	6.28	14.30	0.71
1968	17.56	35.02	1.77
1969	15.08	35.82	1.57
1970	19.66	52.47	2.10
1971	25.03	74.94	2.60
1972	18.94	96.95	2.06
1973	N. A.	280.86	
1974	"	81.45	
1975	"	151.44	
1976	"	288.77	
1977	"	268.10	
1978	"	417.80	
1979	"	286.60	
1980	"	398.40	

Source: Directorate General of Commercial Intelligence and Statistics, Calcutta.

We are unable to comment on the increase in value of exports during 1973-1980 as we do not have the corresponding quantity figures.

We may now bring together the exports of all sectors of the textile industry. This is done in Table 11.7. In column 7 of the Table is given the total value of India's textile exports. It will be seen that this amounted to Rs.8,462.20 million in 1980. Of this, cotton textile exports of the mill sector accounted for 76.94 per cent and those of the handloom sector 14.02 per cent.

We may relate India's textile exports to India's total exports. This is shown in column 9 of Table 11.7. It will be seen that, except during the period 1966-1972 when the share of textile exports had declined considerably, the textile exports have remained about 9-10 per cent of India's total exports. Recently, there is evidence to suggest that this share may have gone up somewhat to about 12 per cent.

The purpose of referring to the textile exports is to obtain estimates of India's domestic consumption of textiles and relate it to the growth in the population. Production minus exports would give the domestic production available for domestic consumption. To estimate domestic consumption, we should also take into account imports of fabrics. Imports of both cotton and man-made fabrics have been, on the whole, negligible. The Indian Textile Bulletin gives the import figures for cotton fabrics for the period

Table 11.7: Value of Total Textile Exports (1957-1980)

Year	Value in Rs. millions						Value of total exports of Indian merchandise (8)	7/8 % (9)
	Value of Textile Exports (Fabrics & Manufactures)							
	Cotton Textiles			Total 2+3+4 (5)	Man-made textiles (6)	All tex- tiles 5+6 (7)		
	Mill (2)	Handloom (3)	Powerloom (4)					
1957	596.28	55.63	N. A.	651.91		651.91	6,377.40	10.22
1958	412.08	52.35	"	464.43		464.43	5,705.60	8.14
1959	554.43	65.91	"	620.34		630.34	6,137.90	10.27
1960	582.92	50.14	"	633.06	45.95	679.01	6,324.20	10.74
1961	505.35	55.34	"	560.69	67.43	628.12	6,568.20	9.56
1962	447.40	67.46	"	514.86	83.49	598.35	6,781.50	8.82
1963	493.14	98.45	"	591.59	105.75	697.34	7,628.90	9.14
1964	574.60	96.22	"	670.82	65.79	736.61	8,131.50	9.06
1965	576.83	125.70	1.60	704.13	49.04	753.17	8,016.50	9.40
1966	619.98	84.01	0.80	704.79	29.01	733.80	11,528.80	6.36
1967	740.59	89.93	2.50	833.02	14.30	847.32	11,928.00	7.10
1968	842.39	81.72	3.00	927.11	35.02	962.13	13,541.90	7.10
1969	814.61	113.20	9.75	937.56	35.82	973.38	14,087.00	6.91
1970	945.96	127.75	13.42	1,087.13	52.47	1,139.60	15,243.90	7.48
1971	988.68	164.09	15.02	1,167.79	74.94	1,242.73	16,031.50	7.75
1972	1,336.85	233.98	20.72	1,591.55	96.95	1,688.50	19,643.90	8.60

Table 11.7 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1973	2,582.34	416.07	47.79	3,046.14	280.86	3,327.00	25,183.40	13.21
1974	2,722.82	423.16	49.70	3,195.68	81.45	3,277.13	32,986.20	9.93
1975	3,070.87	527.72	41.94	3,640.53	151.44	3,791.97	40,259.20	9.42
1976	5,109.67	753.73	153.20	6,016.60	288.77	6,305.37	49,678.30	12.69
1977	4,045.20	1,161.30	111.00	5,317.50	268.10	5,585.60	53,975.10	10.35
1978	5,436.10	917.10	235.80	6,589.00	417.80	7,006.80	57,066.00	12.28
1979	6,169.00	1,032.90	273.90	7,475.80	286.60	7,762.40	N.A.	
1980	6,510.40	1,186.40	367.00	8,063.80	398.40	8,462.20	N.A.	

Source: Col. 2: Cols. (3+4), Table 11.2.
 Col. 3: Cols. (3+4), Table 11.4.
 Col. 4: Cols. (3+4), Table 11.5.
 Col. 8: Statistical Abstract, India.

1952-1969 (Table 11.8), after which the series have been discontinued, presumably on account of the insignificant quantity of imports. Figures for the imports of man-made fibre fabrics are available for the period 1970-1978 (Table 11.9), during which, it can be seen, the imports were negligible.

Hence, in the following, we shall neglect the small imports of cloth and obtain estimates of cloth available for domestic consumption from production minus exports. The relevant data are brought together in Table 11.10. In column 2 is given output of all cloth, cotton and non-cotton. In column 3 is given estimates of cotton cloth available for domestic consumption-mill-made, handloom and powerloom altogether. These are obtained by subtracting exports from production. Column 4 gives output of blended cloth. The series is available only from 1969. Moreover, data on exports of blended cloth is not available; as noted, (presumably)(it is) negligible. Hence we shall treat the output of blended cloth as all available for domestic consumption. For the years prior to 1969, we shall treat it as negligible. In column 5 is given man-made fabrics available for domestic consumption obtained by subtracting exports from production. In column 6 is given total of all cloth available for domestic consumption. In column 7 are given estimates of population; these are as given by the Indian Textile Bulletin. Finally, in column 8 are given estimates of per capita availability of cloth for domestic

Table 11.8: Imports of Cotton Fabrics (1952-1969)

Year (1)	Imports of Cotton Fabrics	
	Million metres (2)	Rs. Millions (3)
1952	5.35	N. A.
1953	4.15	"
1954	4.24	"
1955	6.64	"
1956	12.41	
1957	10.06	23.69
1958	4.57	10.53
1959	2.52	11.92
1960	3.97	7.99
1961	2.08	4.48
1962	1.06	2.27
1963	0.43	0.84
1964	0.15	0.33
1965	0.09	0.16
1966	0.07	0.31
1967	0.09	0.54
1968	0.02	0.13
1969	0.02	0.15

Source: Indian Textile Bulletin, DGCI & S, Calcutta.

Table 11.9: Imports of Man-Made Fabrics (1970-1977)

Year (1)	Imports of Man-Made Fabrics	
	Million metres (2)	Rs. millions (3)
1970	0.18	1.20
1971	0.31	2.75
1972	0.27	2.76
1973	0.11	1.56
1974	0.17	2.97
1975	0.20	3.13
1976	0.29	3.96
1977	0.30	8.39

Source: Indian Textile Bulletin, D.G.C.I. & S.,
Calcutta.

Table 11.10: Estimated Per Capita Consumption Of Cloth (1951-1980)

Year	Total pdn. of cotton, blended, mixed, man-made cloth Million metres	Cloth Available For Domestic Conn.				Estimated mid-year Population	Estimated Per Capita availability 6/7 Metres	Per Capita Availability as given by Ind. Text. Bull. Metres
		Cotton Cloth	Blended & Mixed Cloth	Man-Made Fibre Cloth	Total 3+4+5			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1951	5,144	4,091			4,091	363.20	11.26.	
1952	4,945	4,204			4,204	369.45	11.38	
1953	6,263	5,355			5,355	375.94	14.24	
1954	6,564	5,361			5,361	382.78	14.01	
1955	6,790	5,632			5,632	390.00	14.44	
1956	7,122	5,916			5,916	397.62	14.88	14.71
1957	7,295	5,977			5,977	405.67	14.73	14.50
1958	7,113	6,092		382	6,474	414.16	15.63	15.20
1959	7,323	5,994		485	6,479	423.12	15.31	14.87
1960	7,429	6,169		513	6,682	432.56	15.45	15.00
1961	7,940	6,729		494	7,254	442.21	16.40	15.90
1962	7,885	6,688		525	7,213	451.73	15.97	15.52
1963	7,990	6,692		563	7,255	461.54	15.72	15.93
1964	8,604	7,100		779	7,879	471.63	16.71	16.85
1965	8,568	6,999		825	7,824	482.02	16.23	16.45

Table 11.10 (contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1966	8,285	6,327		601	6,928	492.68	14.06	15.60
1967	8,187	6,439		876	7,225	503.63	14.35	15.31
1968	8,814	7,288		875	8,163	514.87	15.85	16.27
1969	8,642	7,095	106	1,040	8,241	526.43	15.66	15.60
1970	9,460	7,204	149	1,474	8,827	538.31	16.40	15.55
1971	8,496	6,683	248	951	7,882	550.24	14.32	14.57
1972	9,084	7,233	199	902	8,334	562.47	14.82	15.13
1973	8,956	6,783	249	839	7,871	574.22	13.71	13.94
1974	9,369	7,560	210	796	8,566	586.06	14.62	14.60
1975	9,305	7,130	366	821	8,317	597.87	13.91	14.55
1976	9,520	6,576	591	850	8,017	609.27	13.16	13.73
1977	9,600	5,950	1,463	1,000	8,413	623.00	13.50	13.42
1978	10,556	6,311	1,748	1,141	9,200	638.00	14.42	14.13
1979	10,538	6,440	1,681	1,681	9,802	654.00	14.76	13.76
1980	10,984	7,276	1,231	N.A.	N.A.			

Source: Col.2: Col.10, Table 11.1.

Col.3: (Col.2, Table 11.1 + Col.3, Table 11.1 + Col.4, Table 11.1) -
(Col.7, Table 11.2 + Col.7, Table 11.4 + Col.7, Table 11.5)

Col.4: Indian Textile Bulletin. Col.5: Indian Textile Bulletin.

Col.7: Indian Textile Bulletin. Col.(9): Indian Textile Bulletin.

N.B.: (1) Exports of powerloom cloth for the period 1951-1964 are treated as negligible.
(2) Exports of Blended & Mixed Cloth are treated as negligible throughout.

consumption.

It may be noted that estimates of per capita availability of cloth for the period from 1956 to 1979 are provided by the Indian Textile Bulletin. For ready reference, these are given in column 9 of Table 11.10. It is obvious that these do not quite tally with the estimates prepared by us and given in column 8. The difference between the two series is not systematic. The method by which the estimates published in the Indian Textile Bulletin are prepared is not explained but it seems that they are based on similar estimates published in the annual reports of the Bombay Millowners' Association. The published estimates are available to us for the period 1956 to 1974 and presumably unpublished data for later years have been furnished to the Indian Textile Bulletin. The Bombay Millowners' Association gives separate estimates for (i) mill-made cloth, (ii) cloth from the decentralised sector that is both handloom and powerloom, and (iii) synthetic fabrics. Presumably, (i) and (ii) included cotton cloth as well as blended and mixed cloth. In each category separate figures are shown for production and exports and availability is derived by subtracting the exports from the production. But for the years 1956 to 1973 the export figures are more or less the same as the exports of cloth as cloth and no allowance seems to have been made for exports of cloth in the shape of apparel, made-ups and other manufactures. For the

first time, some allowance seems to have been made on this account in 1974; but appears to be very inadequate. For instance, from Table 11.2, it will be seen that our estimate of exports of mill cloth in 1974 is 615.93 million metres consisting of 373.11 million metres as cloth and 242.82 million metres of cloth in the shape of apparel, made-ups and other manufactures. Of this, the first is an official figure; the second is estimated by us on the basis of 60 per cent of the value of manufactures converted into metres at the unit price of cloth exported as cloth. Compared with this, the exports of mill cloth in 1974 given in the report of the Bombay Millowners' Association of that year is 479.0 million metres. The basis of this estimate is not explained. But if we allow 373.11 million metres out of it as exports of cloth as cloth (which is the official figure), it would leave only 105.89 million metres of cloth exported in the shape of manufactures. This is less than half of our estimate (242.82 million metres) and would mean that the value of cloth accounts for only about 25 per cent of the value of manufactures (against 60 per cent assumed by us) or that the cloth exported in the shape of manufactures is of unit value more than two times the unit value of cloth exported as cloth. This does not appear to be satisfactory.

Moreover, the figures for the years after 1974 are not available to us and we do not know how the estimates of per capita availability given by the Indian Textile

Bulletin are derived. We therefore prefer to work with the estimates derived by ourselves and given in column 8 of Table 11.10.

As already noted, the production of cloth in 1951 and 1952 was exceptionally low. Consequently, the per capita availability of cloth in these two years was also very low, 11.26 and 11.38 metres respectively. Barring these two years, the per capita availability of cloth has fluctuated around 14.5 metres. There is no systematic element in these fluctuations and no evidence to suggest that the per capita availability of cloth has either increased or declined over the period. We must therefore conclude that in the past three decades since Independence, the per capita availability of cloth for domestic consumption has remained unchanged at about 14.5 metres.

However, if we contrast the post-Independence period with the pre-Independence period, there appears to be a distinct improvement. Estimates of per capita availability of cloth were first prepared by the Fact Finding Committee (Handlooms and Mills), in 1942. The Report of the Committee gives these estimates for the period from 1900-01 to 1938-39 (Appendix XXXI, p.29 of the Report). These were slightly revised and updated to 1953-54 by the Textile Enquiry Committee (1954). They are given in yards per capita in Vol. III (pp.1339-1340) of the Report. In Table 11.11 we give the figures in yards (col. 2) and converted in metres (col. 3).

Table 11.11: Per Capita Availability of Cotton Cloth
In India (1900-01 to 1953-54)

Year (1)	Per Capita Availability of Cotton Cloth	
	In yards (2)	In metres (3)
1900-01	9.60	8.78
1901-02	10.94	10.00
1902-03	10.97	10.03
1903-04	10.52	9.62
1904-05	11.38	10.41
1905-06	12.89	11.79
1906-07	12.65	11.57
1907-08	13.44	12.29
1908-09	11.70	10.10
1909-10	11.99	10.96
1910-11	12.47	11.40
1911-12	13.59	12.43
1912-13	15.62	14.28
1913-14	16.11	14.73
1914-15	14.19	12.98
1915-16	13.68	12.51
1916-17	11.82	10.81
1917-18	11.17	10.21
1918-19	10.10	9.24
1919-20	8.96	8.19
1920-21	12.28	11.23
1921-22	11.37	10.40

Table 11.11 (contd.)

(1)	(2)	(3)
1922-23	13.14	12.02
1923-24	11.62	10.63
1924-25	13.96	12.77
1925-26	12.50	10.97
1926-27	14.23	13.01
1927-28	15.05	13.76
1928-29	12.83	11.73
1929-30	15.40	14.08
1930-31	12.94	11.83
1931-32	13.89	12.70
1932-33	16.24	14.85
1933-34	13.50	12.34
1934-35	15.22	13.92
1935-36	16.04	14.67
1936-37	14.69	13.43
1937-38	15.14	13.84
1938-39	16.96	15.51
1939-40	14.81	13.54
1940-41	13.02	11.91
1941-42	12.16	11.12
1942-43	10.05	9.19
1943-44	13.48	12.33
1944-45	12.84	11.74
1945-46	13.01	11.90

Table 11.11 (contd.)

(1)	(2)	(3)
1946-47	12.64	11.56
1947-48	13.96	12.77
1948-49	17.02*	15.56
1949-50	12.76	11.67
1950-51	9.70	8.87
1951-52	14.50	13.23
1952-53	14.98	13.70
1953-54	14.77	13.51

* Increase due to cessation of consuming areas
now forming Pakistan.

Source: Report of the Textile Enquiry Committee (1954),
Vol. III.

It will be noticed that beginning with about 10 metres per capita in 1900, the availability of cloth gradually increased to a little under 12 metres in 1946-47. Throughout this period, barring a few years, it did not exceed 13 metres per capita. Thereafter, that is during 1951-1980, as seen above, the per capita availability of cloth has shown a little improvement; it has remained fluctuating around 14.5 metres per capita.

If over a period of three decades, the average per capita cloth consumption in the country has remained stagnant, as the evidence suggests, it seems unlikely in the nature of things that the per capita consumption of cloth among the poorer sections has increased; it is more likely that the per capita consumption has increased somewhat in the upper strata and declined to that extent in the lower strata of the population. This is a matter of concern when the production of textiles in the country has been so much regulated and directed. Naturally, the Government has felt concerned about the availability of cloth for common consumption in adequate quantities and at reasonable prices. Several measures have been tried from time to time. For instance, in October 1964, the Government had introduced price and production controls over the manufacture and sale of certain standard varieties of cloth of common consumption. Under the control scheme, the industry was statutorily required to produce five varieties, namely, dhoties, sarees, long cloth, shirting

and drill, in full range from superfine to coarse. The obligation amounted to 45 per cent of the total production delivered by mills for civil consumption and was to be discharged at prices for which a formula based on cotton cost and conversion cost was worked out. Distribution of controlled cloth was left to the industry.

An integral part of the above controlled cloth scheme was that necessary price revisions would be allowed in order to maintain alignment with the production costs. Such revisions were in fact regularly allowed upto March 1967, after which no periodical revisions were undertaken. In the face of rising prices of cotton, the industry continued to press for appropriate price increase for the controlled cloth. However, in order to isolate controlled cloth from the inflationary price spiral, Government did not allow any increase, though in May 1968 it was decided to limit the area of controlled cloth to coarse and lower medium varieties only, as fine and superfine varieties were in any case items of rate consumption for the vulnerable sections of the population.

Prices of cotton continued to rise, but Government would not allow a price increase. Consequently, production of controlled cloth declined. While Government had referred the cost structure of the industry to the Bureau of Industrial Costs and Prices for a study, one of the mills took recourse to a Court of Law challenging the Scheme. Following on this, with effect from June 1971,

production of controlled cloth was allowed to be undertaken on a voluntary basis, and the industry accepted the responsibility of production of 100 million sq. metres of cloth each quarter. Prices remained statutorily fixed without any change.

The question was considered again in the Draft Fifth Plan. It said, "The pattern of production of the textile industry will have to be oriented towards meeting the requirements of the vulnerable section of the population. Production will have to be supported with adequate distribution arrangement. A measure of control on the textile industry in order to subserve these objectives will be unavoidable. An integrated policy covering the production, distribution and pricing of cotton textiles will be evolved." (p.149). Accordingly, in April 1974, the scheme for the production of controlled cloth which was made voluntary from June 1971, was again placed on a statutory basis. A price increase of 30 per cent was allowed on the basis of the recommendations of the Bureau of Industrial Costs and Prices. The total production of controlled cloth, now extending to higher medium as well as lower medium and coarse categories was envisaged at 800 million metres. Following complaints about varietal distortions between demand pattern and production pattern, the Textile Commissioner started prescribing minimum level of production of different varieties. However, there were frequent instances of accumulation of unsold stocks of

controlled cloth and Government had to permit free sales to enable clearance of stocks.

In November 1975 Government found it necessary to exempt financially weak mills from the obligation to produce controlled cloth. Further, the obligation of mills exporting more than 20 per cent of production was now fixed on the basis of domestic packing only. On account of these exemptions, a production level of 550 million metres was expected, which was not considered inadequate, as the production level of 800 million metres had led to accumulation of stocks.

The operation of the controlled cloth scheme had a cumulative effect on the profitability of the industry. Reportedly, the production of 550 million metres of controlled cloth entailed, at the rate of 70 paise per metre, a total loss of Rs.40 crores, which was to be recovered from the production and sale of non-controlled cloth. Sharp escalation in the price of cotton further pushed up the estimated losses. As a result, mills found it difficult to produce controlled cloth, and its production declined sharply. Many mills were facing closure, and the number of mills actually closed down increased from 25 in January 1976 to 41 in November 1976. Bulk of the mills made losses. In view of this, a modified scheme was introduced from January 1977. This scheme envisaged a production level of 400 million metres of controlled cloth by the mills, and 100 million metres of controlled dhoties

and sarees by handlooms. An expert body had estimated a 35 per cent gap between the cost and price of controlled cloth without taking into account the return on capital. Accordingly, a price increase to the extent of 35 per cent on controlled cloth was permitted. But in order not to raise the price to the consumer, the increase of 35 per cent was fully neutralised by way of a subsidy to National Cooperative Consumer Federation towards distribution costs and excise incidence. Further, to ensure the availability of cloth to the vulnerable sections, State Governments were asked to re-impose and enforce more vigorously the income criteria and quantitative restrictions for sale of controlled cloth.

In April 1977, the Ministry of Commerce evaluated the working of the new scheme in the following words: "The modified scheme effective from 1-1-1977, appears to be working satisfactorily. Even after taking into account the exemptions granted to financially weak mills, the net obligation for the production of controlled cloth during January to March, 1977 comes to 197.5 million sq. metres as against 100 million sq. metres required for a quarter in relation to the annual level of 400 million sq. metres. Final figures of actual production during the quarter have not yet become available but the provisional information available places actual production level at 80 million sq. metres. The entire distribution of cloth is being made through N.C.C.F. and its affiliated distribution system.

As on 30-6-1976, there were a total of 55,947 retail outlets, 44,790 in rural areas and 11,157 in urban areas. Some State Governments have already reimposed and are effectively enforcing the income and quantitative restrictions for the retail sale of controlled cloth."*

In connection with the controlled cloth scheme, the Programme Evaluation Organisation of the Planning Commission had conducted a 'Quick Survey' of the availability and sale of controlled cloth in 32 urban towns in March 1977 and April 1977. The findings of the Survey showed that "whereas the demand for the different varieties of controlled cloth has held as invariably good, a serious gap exists in the distribution system, which has very substantially enlarged during the year 1976-77. A substantial proportion of markets are not covered by any of the existing distribution agencies and replenishments of stocks have neither been speedy nor regular. Since this is the situation in the towns, including several State capitals, the position in the outlying districts, and particularly in the taluka towns and rural areas (though not observed as part of this Study), may be expected to be not better." (p.1 of the report of the Survey). Thus, it seems, contrary to popular impression created about poor consumer response to controlled cloth, the demand was not lacking. But the

* Source: Quick Survey of Availability and Sale of Controlled Cloth in 32 Urban Towns, March 1978, Annexure B, p.76.

arrangements for supply and distribution needed improvement. The Draft Sixth Plan (1978-83) accepted the recommendations of the Quick Survey.

In the meanwhile, the Khadi and Village Industries Commission had proposed a scheme for the manufacture of Coarse cotton cloth comparable to controlled cloth. The scheme was originally envisaged for the Fifth Plan period. Rural weaving centres called Lokvastra units were to be set up in order to provide greater employment to vulnerable sections in rural areas, and to bridge the gap between the requirements of coarse varieties of cloth and its production by mills. A rural weaving centre was planned to provide employment to 84 workers, 300 days a year, 8 hours per day. The workers would earn between Rs. 5 and 6 per day. The pre-spinning and spinning activity would be done on power, while weaving would be done either on handlooms or 'powerised' looms. It was expected to produce 1.13 lakh metres of cloth per year. A scheme on these lines run by the Government of Tamil Nadu was studied by a team of officials of the Ministry of Industrial Development in 1972 to ascertain the techno-economic feasibility of its wider application. The team's findings were favourable, and in their final proposal the KVIC proposed to set up 1000 units during the Fifth Plan period.

We have not been able to trace further progress of this scheme. The Draft Sixth Plan (1978-83) suggested that the production of controlled cloth should eventually be

"phased out of the organised sector." But it did not assign the responsibility to the khadi programme. Instead, it suggested that "the handloom sector should, to the maximum extent possible, meet the requirements of cloth for the weaker sections of the population." (p.253).

Accordingly, out of the 4100 million metres assigned to the handloom sector under the Sixth Plan (1980-85), 500 million metres were to be what was called 'Janata Cloth'. The immediate consequence was that from October 1978, the obligation on the part of the mills to produce controlled cloth was dispensed with and the bulk of the controlled cloth was assigned to the mills under the NTC. Non-NTC mills willing to produce controlled cloth were required to sell it at prices not exceeding NTC prices.

The Directors' Report of the National Textile Corporation for the year 1980-81 has two paragraphs, one on controlled cloth and the other on cheap cloth. We reproduce them in the following as they seem to give the latest position on the subject:

"Controlled Cloth:

The new Textile Policy announced by the Government on 9th March 1981 envisaged increase in annual production of controlled cloth from 400 million sq. metres to 650 million sq. metres. The responsibility of production of this controlled cloth would be shared equally by the National Textile Corporation Limited and the Handloom Sector. The production of controlled cloth would be mainly restricted

to sarees, dhoties and long cloth. Roughly, half of the quantity which would be produced under this scheme would represent sarees. It has been proposed to give the Handloom Sector a progressively increasing share in the controlled cloth scheme and at the same time the National Textile Corporation Limited will be called upon to manufacture as much of controlled cloth as it is capable of. The target fixed for NTC for controlled cloth for the current year was 325 million metres. The revised controlled cloth scheme under the new Textile Policy came into force from 1st July, 1981. The salient feature of this are that subsidy has been fixed at Rs.2 per sq. metre for dhoty, and saree and Rs.1.50 per sq. metre for long cloth and the difference between the cost of manufacture and the subsidy shall be recovered from the consumer by way of increased consumer prices. The quantity of controlled cloth packed during the four quarters of 1980-81 totalled to 416.89 lakh sq. metres."

"Cheap Cloth:

Keeping in view the micro objectives of the Corporation, as the "clothier of Masses", NTC mills on an average produce about 78 million sq. metres of cloth per month, out of which nearly 35 million sq. metres were packed by way of controlled cloth and about 22 million sq. metres by way of cheap cloth. Thus, it would be appreciated that almost 75 to 80 per cent of the total production of NTC mills has been earmarked for meeting the needs of the poorer sections of the Indian

population.

The scheme relating to production of cheaper variety of cloth for augmenting the supply of cloth at reasonable prices has been in operation since 1st April, 1979. The maximum consumer price under the scheme is restricted to Rs. 6.36 per metre throughout the country. During the year 1980-81, NTC mills produced 261.04 million metres of this variety." (p.7).

We have not been able to trace how much of the controlled cloth is being supplied by the handloom sector and whether it also gets a direct subsidy on that account. It is obvious that if the handloom sector is to supply comparable controlled cloth at comparable prices, it will also have to be subsidised at least to the extent of the subsidy given to the NTC. Finally, as mentioned above, we have not been able to trace the progress of the production and supply of Lokvastra by the Khadi and Village Industries Commission. If Lokvastra is to be comparable to the controlled cloth of the NTC in quality and price, it is obvious that it will also need substantial subsidy. It seems that there is a real dilemma between protecting and promoting low-productivity equipment in the interest of larger employment and production and supply of commodities of mass consumption, such as cloth, at prices which reach the masses.

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