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Why the Yangzi Delta Did Not Become Industrialized: A Comparative Analysis of Economic Developments in China's Yangzi Delta Region and Great Britain

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The development of the family-based handicraft industry in the Yangzi delta provided supplementary income and employment opportunities to auxiliary family members. But it did not replace subsistence farming as the primary method in which peasants made their living, and more importantly, it did not allow China to close the gap in the great divergence with the West. So why didn't the cotton-based handicraft industry catapult the Yangzi delta region into the modern era of industrialization? Why did the handicraft industry merely serve as a supplementary rather than an alternative means of livelihood? To understand the reasons why the handicraft industry did not transform China into an industrial and urban nation, it is important to examine the constraints in which population growth and land intensification had imposed on the peasants of the delta. These factors combined with the favorable geographical environment and commercial opportunities for trade in other regions, forced peasants to adopt the family-based handicraft industry as a supplementary source of income for survival. While the impact-response model may have suggested that it was the inability of the handicraft spinners and weavers to compete against British machines and the subsequent drop in cotton prices, a China-centered approach advocated by Paul Cohen would suggest domestic factors such as rapid population growth due to changes in taxation policies and the diminishing rate of return in labor, and the insufficient production of rice and grain may have been the real reasons that prevented the handicraft industry from developing into an alternative for farming.

Keywords: Chinese economy, industrialization, labor, geography

Introduction

The development of the family-based handicraft industry in the Yangzi delta provided supplementary income and employment opportunities to auxiliary family members. But it did not replace subsistence farming as the primary method in which peasants made their living, and more importantly, it did not allow China to close the gap in the great divergence with the West. So why didn't the cotton-based handicraft industry catapult the Yangzi delta region into the modern era of industrialization? Why did the handicraft industry merely serve as a supplementary rather than an alternative means of livelihood? To understand the reasons why the handicraft industry did not transform China into an industrial and urban nation, it is important to examine the constraints in

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which population growth and land intensification had imposed on the peasants of the delta. These factors combined with the favorable geographical environment and commercial opportunities for trade in other regions, forced peasants to adopt the family-based handicraft industry as a supplementary source of income for survival. While the impact-response model may have suggested that it was the inability of the handicraft spinners and weavers to compete against British machines and the subsequent drop in cotton prices, a China-centered approach advocated by Paul Cohen would suggest domestic factors such as rapid population growth due to changes in taxation policies and the diminishing rate of return in labor, and the insufficient production of rice and grain may have been the real reasons that prevented the handicraft industry from developing into an alternative for farming (Cohen, 1996).

Historical Development

The historical origins and eventual growth of the handicraft industry were the results of favorable geographical environment, emerging commercialization opportunities elsewhere and most importantly, the need to generate supplementary income to survive. Philip Huang pointed out that cotton was at the heart of the historical development of familization and commercialization in the Yangzi delta during the Ming and Qing periods. Huang documented that in 1350, no one in China wore cotton cloth, but by 1850, almost everyone did. Cotton gradually replaced hemp as it had a higher yield, could be more easily processed and the finished product is more comfortable and warmer. Cotton spinning and weaving was first introduced in the late 13th century into Wunijing, south of Shanghai, near the Huangpu River. Eventually cotton cultivation expanded into neighboring Changshu and Wuxi counties, and triggered a booming handicraft spinning and weaving industry (Huang, 1990, pp. 44-45). Xu Xinwu noted that by 1860, about 45% of all peasant households in China engaged in cloth weaving, and about 80% grew their own cotton. Songjiang prefecture, in the heart of the Yangzi delta, became the country's leading cotton handicrafts center where almost all peasant households wove, with the average household producing 66.3 bolts each year, but only kept 8.4 bolts for their own consumption. The rest were all exported to other regions throughout China, suggesting a high degree of commercialization in the delta countryside (Huang, 1990, p. 46). Cotton, along with sulk and rice triggered a dramatic growth in towns and cities of the delta. Suzhou city, which became the country's largest silk-weaving and cotton cloth-processing center was the largest metropolis in China until the middle of the 19th century. The rise of towns were linked to the marketing of cloth, silk, and grown.

Huang argued that it was commercialized cotton cultivation that brought the auxiliary household labor into production. Cotton differed from other crops in its harvesting work as it required substantially more labor than the dry-farmed grains, and extended over a longer period, usually about six weeks from late September to early November, compared to about two weeks for other crops. The cotton harvest also came at the same time as the harvest for sorghum, millet, and maize, as well as the planning of winter wheat, which were all relatively heavy work. This resulted in the division of labor by gender where cotton picking became primarily women's work. Children were often mobilized as well, since they could strip this relatively short plant more easily than adults (Huang, 1990, p. 51). The division of labor by gender was triggered by the conflicting harvest seasons of cotton and other grains. Cotton alone could not replace other grain crops as the sole source of subsistence for the peasants, and they still had to harvest other crops. Because cotton was seen as a supplementary rather than a

primary or alternative source of subsistence, the division of labor by gender was created to increase the efficiency of the harvest.

Cotton cultivation led to handicraft spinning and weaving in which women spun their own yarn and wove their own cloth in most cotton-growing villages. The emerging export markets along the rivers with good access to transportation increased the commercialization of the handicraft products. Huang linked familization and commercialization together as increased demand for exports brought more women and children into the family production unit in which "the men farmed and the women weaved" (Huang, 1990, p. 52). By the 17th century, cotton had spread both east and westward from the coastal region to occupy more than 50% of the cultivated areas. Where cotton was the dominant crop, as in Fengxian and Nanhui of the high-lying periphery of the basin, both men and women were involved in its cultivation. Where it was grafted onto a more dominant rice production, as in Huayangqiao, it became primarily women's work. Since rice overlapped with the early weeks of the cotton harvest, women and children did the cotton harvesting to relative the pressures resulting from this kind of agricultural intensification. As a result the cottage industry in cotton grew very quickly.

According to Xu Xinwu, by 1860 almost every peasant household produced cloth, about seven-eighths of their products was for the market, not for home consumption. The commercialization of agriculture during the Ming-Qing strengthened and expanded the family production unit by bringing in auxiliary labor (Huang, 1990, pp. 53-54). Despite traditional gender roles, there was an overwhelming economic imperative for women's participation in farm work in the areas that grew cotton. In some places, cotton cultivation, spinning and weaving, silkworm growing and silk reeling became approved women's work. Huang concluded that the coming of commercialized cropping and the development of handicraft industries brought forth the demand for the involvement of women and children in production, and elaborated the family work unit that now combined farming with home industry (Huang, 1990, p. 56). Huang believed that irrigation, greater commercialization, and greater development of the home industry all contributed to a higher degree of familiarization in the Yangzi delta than in the North China plain. The delta region had extended much father toward full familization, exemplified by the highly commercialized cotton-weaving households of Songjiang and the silkworm-raising, and silk-reeling households of Suzhou (Huang, 1990, p. 57).

During the Ming and Qing dynasties, the percentage of urban population in the Yangzi delta increased faster than the general population. William Skinner estimated that 7.4% of the population of the "lower Yangzi region" lived in towns of 2,000 residents or more in 1843, which was much higher than the 4.2% of urban population in the North China plain, although this was still far below the urbanization in England, where by 1801 about 27.5% of the population lived in towns of 5,000 residents or more (Skinner, 1977, p. 229). Skinner's statistics supported the idea that despite the emergence of family-based handicraft industry, the Yangzi delta by the mid-19th century was still very much agrarian and rural. Peasants had to live off the land and subsistence agriculture was still the chief source of livelihood. This supported the notion that handicraft production alone could not transform the fundamentally rural nature of Chinese society, and that peasants still had to rely primarily on agriculture.

Robert Brenner and Christopher Isett provided convincing evidence that domestic manufacturing through the handicraft industry resulted because of land intensification and the insufficient production of grain. They pointed out that by the 18th century, the plot sizes of the Yangzi delta paddy zones continue to decline, as annual yields could not support the increasing peasant population. By the end of the 18th century, soil productiveness

had reached its limit and yields could no longer be raised, no matter how much additional labor was applied. With holdings per family becoming smaller, the labor of a single adult male was more than sufficient to work the entire family plot. Women who had worked alongside men in the fields were now squeezed out as farm size diminished and yields peaked. The women's labor in the fields became redundant and superfluous. As a result, women entered other lines of production, chiefly cotton spinning and weaving because their labor might yield enough to make up for the grain deficit. Brenner and Isset believed that the only way to make ends meet and raise income was to turn toward domestic manufacturing. Women, children, and old men moved into domestic manufacturing, mainly cotton cloth so they can exchange it on the market for the rice and grain they could no longer produce themselves. Once plots became so small that the men's labor sufficed, women, children, and the elderly began to devote their entire time to spinning and weaving, working at home to produce ginned cotton or spun yarn that could be purchased on the market. While there had been examples of peasants turning to spinning yarn and weaving cloth in the late Ming, it was not until the 18th century that selling ginned cotton, yarn, and cloth became more pervasive as the diminution of peasant plots due to land intensification caused peasants to engage in domestic manufacturing since their plots were too small to provide full subsistence directly (Brenner & Christopher, 2002, pp. 629-630).

Brenner and Isset examined the trade characteristics in the Yangzi delta to reflect China's limited capacity to support towns. Because peasant households turned to domestic manufacturing essentially to secure subsistence grains, the exchange that resulted simply entailed the exchange of peasant produced cotton and handicrafts for grain. This suggested that trade in China was between peasants with grain deficits, usually located in densely populated areas like the Yangzi delta and peasants with grain surpluses, usually found in the more sparsely populated peripheries. While the delta witnessed a growth in the absolute number of towns and urban population, the total population doubled as well between the 1520s to the 1820s. Specialized small towns catering to the trade in cotton handicrafts, raw and spun silk, and grain sprung up across the Yangzi delta, fueled by the peasants' need for grain. But the proportion of the total population living in urban towns may not have increased. They concluded that the Jiangnan small-town development during the Ming and Qing was almost entirely built upon inter- and intra-regional movement of rurally produced commodities (cotton or grain) to supply each region with specific deficiencies rather than the town-based manufacturing in England that led to proto-industrialization (Brenner & Christopher, 2002, pp. 633-634).

While the Yangzi delta region certainly had favorable geographic terrain such as alluvial soil, sandy soil, and dry ditch soil, where permeability and good ventilation were ideal conditions for the cultivation of cotton (LU, 1992, pp. 476-477), perhaps a more important reason why the cotton-based handicraft economy developed in the Jiangnan region was because of its extremely high population density. According to Skinner, the lower Yangzi delta had by far the highest population density of any region in China (Skinner, 1977, p. 229). A high population density and a limited amount of arable land inevitably reduced the size of the family plot. With the family plot becoming smaller and smaller, and the necessity to support more and more people, the peasants of the Yangzi delta must resort to other ways besides subsistence farming to survive. Unproductive additional labor as a result of diminishing returns of production propelled women, children, and old men into finding other ways to contribute to the household. The ideal environment for cultivating cotton, and the need for yarn, cloth, and other handicraft products based on spinning and weaving made it much more practical to engage in family-based

domestic production than to continue to labor in the fields. However, even commercial trade and exchange for rice and grain alone could not make the Yangzi delta peasants sufficient. They still had to rely on traditional subsistence farming methods for food, and cotton handicrafts only served as a supplementary resource to alleviate the pressures caused by the population boom and limited arable land.

Despite the increased participation of women and the expansion of trade involving handicraft products for grain, Philip Huang argued that the family farm industry in the Yangzi delta only accelerated the great divergence between China and the West. Despite the commercialization and family production that occurred, rural handicrafts did not become an independent alternative to farming, rather it always remained a supplementary activity. Handicraft production consisted of spinning yarn, requiring four days each week for a bolt of cloth. The payment for spinning was low, and even combined with weaving, the income of a typical spinner-weaver could barely cover the food-grain needs of one person. Cloth production could not be a substitute for farming, and as a result a production pattern developed in which delta peasant households typically combined grain farming with cotton cultivation and cotton handicrafts. Low-income farmers had to use supplementary income from handicrafts to maintain subsistence (Brenner, & Christopher, 2002, p. 518). Handicraft weaving continued into the 20th century in China, accounting for 38.8% of total cloth consumption in 1936. Because of low-cost family labor, handicraft weaving was able to hold on against a labor productivity differential of one to four compared to machines. But handicraft spinning was virtually wiped out where the labor productivity gap between handicraft and machines of one to forty so that even low-cost subsidiary family labor could not survive, as yarn costs dropped close to the costs of cotton (Brenner & Christopher, 2002, p. 519).

Huang pointed out the critical differences between Yangzi delta family-farm handicraft industry and the English proto-industrialization, where unlike Yangzi delta peasants which remained at subsistence levels, proto-industrialization provided the English peasants with employment opportunities independent from farming, and as a result allowed sons and daughters of peasants to marry before they could inherit the farm (Brenner & Christopher, 2002, p. 518). The differences between Yangzi delta home industry and English proto-industrialization widened the gap in the urbanization development of the two countries. While the Yangzi delta of the 18th century had seen the rise of some new towns for cotton and silk processing, it was nothing comparable to the urbanization process in England. The agricultural revolution in England made it possible to reduce the percentage of the population engaging in agriculture, in which a small number of peasants could support a large off-farm population, and hence proto-industrialization became an increasingly town-based rather phenomenon while the Yangzi delta remained a family farm society. The English “new urbanization” took place primarily in smaller new towns and cities (between 5,000 to 30,000 residents), and the proportion of the population living in emerging small cities and towns increased significantly. The gradual rise and expansion of towns in England that began well before 1750 transformed England into an urbanized nation. However, China simply did not develop small-town growth and remained an agrarian and rural based society until the introduction of modern industry into the countryside in the 1980s (Brenner & Christopher, 2002, pp. 519-520).

Conclusion

While the family-oriented commercialization of the handicraft industry brought women into the labor force, and made the Yangzi delta region more prosperous in comparison to the rest of China, it could not replace

agriculture as the primary source of subsistence. The Yangzi delta region remained largely rural, where handicrafts played a supplementary role to farming while England developed a proto-industrialization phase that gave rise to the new urbanization of small towns and reduced the proportion of the population involved in farming. The great divergence between the two countries widened as England became more urbanized and industrialized, while China remained an involution-bound, subsistence-level rural society.

References

Brenner, R., & Christopher, I. (2002). England's divergence from China's Yangzi Delta: Property relations, microeconomics, and patterns of development. *Journal of Asian Studies, 61*(2), 609-662.

Cohen, P. (1996). *Discovering history in China: American historical writing on the recent Chinese past*. New York: Columbia University Press.

Huang, P. (1990). *The peasant family and rural development in the Yangzi Delta, 1350-1988*. Stanford, CA: Stanford University Press.

Huang, P. (2002). Development or involution in Eighteenth century Britain and China? A review of Kenneth Pomeranz's *The Great Divergence: China, Europe, and the Making of the Modern World Economy*. *Journal of Asian Studies, 61*(2), 501-538.

LU, H. C. (1992). Arrested development: Cotton and cotton markets in Shanghai, 1350-1843. *Modern China, 18*(4), 468-499.

Skinner, W. (1977). Regional urbanization in Nineteenth century China: The city in late Imperial China. California: Stanford University Press.